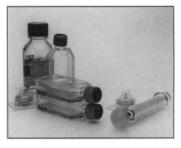
### PRODUCTS & MATERIALS

### Sterile Filtration of Tissue Culture Media

The gamma-irradiated 25-mm Millex-GV Filter Unit is for the sterile filtration of tissue culture media and other biological solutions. Gamma irradiation sterilization ensures the elimination of



EtO residuals that can adversely affect the growth of some sensitive cell types. The unit features a low protein-binding (up to 99% total protein recovery), low extractable Durapore polyvinylidine fluoride membrane. **Millipore. Circle 87.** 

### **GPC Systems**

Two new gel permeation chromatography (GPC) systems include one featuring temperature control for use up to 110°C and one for use up to 210°C. The PL-GPC 110 is a microprocessor-controlled system that incorporates a refractive index detector, injection valve, and columns in the air circulation oven, for total thermal uniformity. The solvent delivery system includes online degassing and high-precision flow for conventional and narrow bore GPC columns. The PL-GPC 210 is an automated svstem for analysis of today's new, high-temperature polymers. Polymer Labs. Circle 88.

### Monoclonal Antibodies

A line of monoclonal antibodies (mAbs) directed toward bovine leukocyte antigens, including anti-bovine CD1, CD2, CD4, CD5, CD8, and CD45, is for use in flow cytometry and immunohistology. Serotech. Circle 89.

Four new mAb products for flow cytometry and fluorescence microscopy include anti-CD35 (anti-CR1, complement C3b receptor), anti-CD11a (integrin LFA-1α), anti-CD42a (anti-platelet), and a negative gamma 1–PE platelet control. Exalpha. Circle 90.

Additions to a range of antibodies to human cytokines include interleukin-4 (IL-4), IL-5, IL-8, IL-10, IL-6 receptor, and interferon B antibodies. Serotec. Circle 91.

### RNA Century Marker Template Set

The RNA Century Marker Template set of five different linearized plasmid templates yields RNA fragments with lengths of 100, 200, 300, 400, and 500 bases after transcription with T7 RNA polymerase. These RNA fragments can be easily labeled during transcription with radioisotopes, biotin, or other nonradioactive ligands. These markers are suitable for sizing RNAs for ribonuclease protection assays, S1 assays, primer extension assays, and other precise studies of RNA structure. Ambion. Circle 92.

### Purification of Plasmid Sequencing Templates

The range of FMP (fast magnetic purification) systems has been expanded to include a system for rapid isolation of plasmid DNA templates for use in dideoxy sequencing. FMP can be used to process multiple samples of plasmid DNA from small-scale bacterial samples and requires no organic solvents and no centrifugation. High-quality template can be generated for sequencing using either radio-

active or fluorescent techniques. Amersham International. Circle 93.

### Fermenter and Cell Culture System

The BioFlo 3000 can be converted from a bacterial fermenter to a dedicated cell culture system by selecting the appropriate mode on the touch keypad screen and substituting an interchangeable vessel. For fermentation, a built-in two-gas control system enriches dissolved oxygen levels with the addition of pure oxygen, air, or both. For cell culture, an



interactive four-gas control system regulates pH and dissolved oxygen. The BioFlo 3000 is available with a variety of vessel types and impeller designs, including a unique packed basket capable of producing animal cells to 108 cells per cubic centimeter of basket volume. New Brunswick Scientific. Circle 94.

### Chemical Spell-Checker

The SciWords spell-checker contains more than 75,000 technical words used in chemistry, physics, and biology, with special emphasis on pharmaceuticals, agrochemicals, pesticides, and biochemical materials. The dictionary includes chemical trade

names, element symbols, common acronyms, and technical terms from Aacaptan to Zyzum. SciWords works with WordPerfect (DOS, Windows, Macintosh) or Microsoft Word (DOS, Windows, Macintosh) word processing packages. It can easily be merged with the dictionaries of these programs. Pool, Heller, and Milne. Circle 95.

### Literature

Model OL 752: The Most Accurate Measure of Light Under the Sun is a brochure on a portable ultraviolet—visible light—near infrared spectroradiometer for use over the 200- to 1600-nm wavelength region. 750 Automated Spectroradiometric Measurement System: OL Series describes an instrument for measuring optical parameters in the 200-nm to 30-µm range. Optronic Labs. Circle 96.

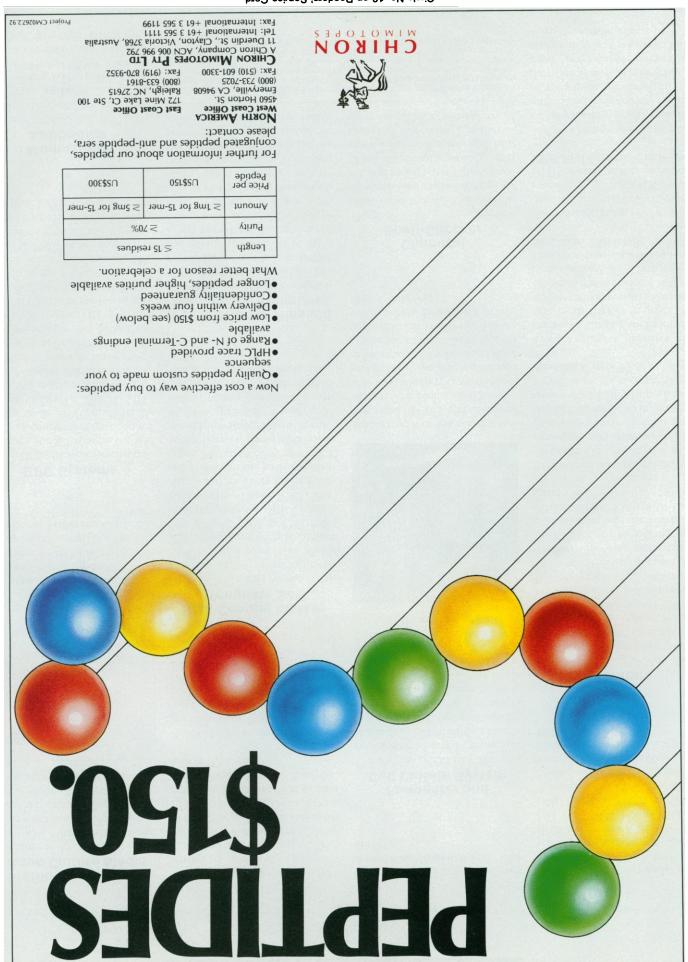
Removal of Excess Linkers with Centricon Concentrators is an application note that provides a protocol for excess linker removal through ultrafiltration, an alternative to gel filtration chromatography or gel electrophoresis. Amicon. Circle 97.

1993 ProChem Research Biochemicals Catalog includes protein modification reagents, biotinylation reagents, iodination reagents, carbohydrate reactive cross-linkers, and sulfhydrylreactive iodination reagents. ProChem. Circle 98.

BioProducts Catalog 1993 provides detailed information on agarose, precast gels, gel support films, and DNA purification products. FMC BioProducts. Circle 99.

1993–94 Microscopy and Histology Catalog features products such as embedding kits and media, diamond knives, size standards, and particles as well as a new line of products for sample preparation, sectioning, and staining. Polysciences. Circle 100.

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.



### Science

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CONDITIONS: Personnel advertising is accepted only with the understanding that the advertisers do not discriminate among applicants on the basis of race, sex, religion, age, color, handicap or sexual preference. The AAAS encourages employers to actively recruit and employ underrepresented minority groups. Science reserves the right, at its discretion, to decline to publish advertisements submitted to it.

### **POSITIONS OPEN**

Department of Agronomy, University of Illinois at Urbana—Champaign invites applications for full-time ASSISTANT PROFESSOR OF WEED SCIENCE. Emphasis on research and teaching in physiological and biochemical mechanisms of herbicide mode of action and metabolism. Nine-month tenure-track position, 75% research, 25% teaching; opportunity for summer appointment. Develop successful, extramurally funded research program in weed science relevant to Illinois cropping systems. Significant component involves field research Collaborate and interact with research and extension faculty within and outside of department, serve as primary liaison with private industry. Teach minimum of one course per academic year, advise graduate and undergraduate students, and direct graduate student research. Ph.D. in Weed Science, Plant Physiology, Agronomy or related discipline required. Training or experience in weed biology and weed ecology and postdoctoral experience desired. Salary commensurate with training and experience. Starting date January 21, 1994, or when suitable candidate available. Closing date August 15, 1993, or until suitable candidate identified. Submit application dossier consisting of personal statement of research and teaching goals, and reasons for interest in the position; curriculum vitae; copies of transcripts; and three letters of reference to: Professor G. H. Heichel, Head, Department of Agronomy, University of Illinois at Urbana—Champaign, 1102 South Goodwin Avenue, Urbana, IL 61801—4798. Telephone: (217) 333-9480. For additional information contact: Dr. Donald P. Briskin, (217) 244-1115. THE UNIVER-SITY OF ILLINOIS IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER. PLEASE CITE ANNOUNCEMENT NUMBER 3736-4/93A WHEN APPLYING.

Department of Agronomy, University of Illinois at Urbana-Champaign invites applications for full-time ASSISTANT PROFESSOR OF PLANT MOLECU-LAR GENETICS OR BIOLOGY. Emphasis on fundamental research and complementary teaching on modamental research and complementary teaching on mo-lecular basis of crop growth and development, or toler-ance to biotic or abiotic stress in crop plants. Nine-month tenure-track position, 75% research, 25% teaching; opportunity for summer appointment. Develop successful extramurally funded plant molecular genetics/biology research program applying genetic and transformation technologies with emphasis on agronomic crops of major importance in Illinois. Participate actively in teaching program of department, including advising undergraduate students and directing graduate student research; teach minimum of one course per academic year. Ph.D. in area of life or plant sciences required. Postdoctoral experience and demonstrated ability in genetic transformation of plants desired. Salary commensurate with training and experience. Starting date January 21, 1994, or when suitable candidate available. Closing date September 1, 1993, or until suitable candidate identified. Submit application dossier consisting of personal statement of research and teaching goals, and reasons for interest in the position; curriculum vitae; reasons for interest in the position; curriculum vitae; copies of transcripts; and three letters of reference to: Professor G. H. Heichel, Head, Department of Agronomy, University of Illinois at Urbana-Champaign, 1102 South Goodwin Avenue, Urbana, IL 61801-4798. Telephone: (217) 333-9480. For additional information contact: Dr. Lila O. Vodkin, Telephone: (217) 244-6147. THE UNIVERSITY OF ILLINOIS IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER. PLEASE CITE ANNOUNCEMENT NUMBER 3734-4/93B WHEN APPLYING. WHEN APPLYING.

The Division of Allergy/Immunology, UT, Memphis, is seeking an academic full-time ASSISTANT PROFESSOR beginning July 1, 1993. The candidates should be BC/BE in Internal medicine and BC/BE in Allergy/Immunology. Experience with diagnostic laboratory immunology, cellular immunology or molecular technique preferred. The applicant should be well trained and capable of initiating an independent clinical and/or bench research program. Interested applicants please send curriculum vitae and two letters of reference to: Dr. T. J. Yoo, University of Tennessee, Memphis, 956 Court Avenue, Room H300, Memphis, TN 38163. The University of Tennessee is an Equal Employment/Affirmative Action/Title IX/Section 504/ADA Employer.

### **POSITIONS OPEN**

### **HUMAN BEHAVIORAL PHARMACOLOGIST**

Applications are invited for a tenure-track position in the Department of Psychiatry and Human Behavior at the University of Mississippi Medical Center. The position will be at the ASSISTANT or ASSOCIATE PROFESSOR level, depending upon qualifications. Candidates should have a Ph.D. in Psychology, Pharmacology or Neuroscience and/or M.D. with expertise in behavioral pharmacology using human subjects. The successful candidate will be expected to develop an externally funded research program in human behavioral pharmacology and to establish collaborative relations with other scientists within the department. Salary will be commensurate with rank and start-up funds and space are available. Applicants should send curriculum vitae, a statement of current and future research goals and names of three references to: William L. Woolverton, Ph.D., Chair of Search Committee, Department of Psychiatry and Human Behavior, the University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216. Applications will be accepted until August 31, 1993. Equal Opportunity Employer, M/F/D/V.

ECOLOGY: York University, Toronto, Canada. Faculty of Pure and Applied Science. Department of Biology. Applications are invited for a position at the ASSIST-ANT PROFESSOR level, subject to budgetary approval. The successful candidate is expected to establish an independent research programme and contribute to graduate and undergraduate teaching in ecology. The area of expertise in ecology is open but the candidate will complement present faculty in ecology and population biology. York University is located in Metropolitan Toronto, an active centre for scientific and scholarly research. Deadline for applications is August 1, 1993. Applications, including curriculum vitae, a description of research, selected reprints, and three letters of reference which will remain confidential, should be sent to: Dr. Joel Shore, Ecology Search Committee, Department of Biology, Faculty of Pure and Applied Science, York University, North York, Ontario, Canada M3J 1P3. York University is implementing a policy of Employment Equity, including Affirmative Action for women faculty. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

### ASSISTANT PROFESSORS TENURE-TRACK MASSACHUSETTS INSTITUTE OF TECHNOLOGY DEPARTMENT OF CHEMISTRY

The Department of Chemistry invites applications for two tenure-track positions, one in Biological Chemistry and the other in Physical Chemistry. While the preferred level of appointment is at the rank of Assistant Professor, applications for appointment at more senior levels are also welcome. Outstanding individuals with a strong commitment to research and teaching are encouraged to apply by arranging to have curriculum vitae, a brief description of research plans, and three letters of recommendation sent to: Professor Robert J. Silbey, Department of Chemistry, 18-399, Massachusetts Institute of Technology, Cambridge, MA 02139–4307. Deadline for Assistant Professor, Biological Chemistry: June 30, 1993; For Assistant Professor, Physical Chemistry: August 31, 1993.

MIT is an Equal Opportunity, Affirmative Action Employer and encourages applications from minorities and women.

MOLECULAR NEUROBIOLOGIST—The Department of Psychiatry of Indiana University School of Medicine has a faculty position open in molecular neurobiology at the Institute of Psychiatric Research. The Institute has a special interest in the molecular genetics of animal behavior. The successful candidate would be eligible for a tenure-track appointment as an ASSIST-ANT or ASSOCIATE PROFESSOR of neurobiology and a possible joint appointment in an appropriate basic science department. Send curriculum vitae to: John I. Nurnberger, Jr., M.D., Ph.D., Professor of Psychiatry and Medical Neurobiology, Director, Institute of Psychiatric Research, 791 Union Drive, Indianapolis, IN 46202–4887; Telephone: (317) 274-8382. Indiana University is an Equal Employment Opportunity/Affirmative Action Employer, M/F.

### **POSITIONS OPEN**

### ASSISTANT DIRECTOR STABLE ISOTOPE LABORATORY

(ASSISTANT PROFESSOR/INSTRUCTOR). The Pennington Biomedical Research Center (PBRC) seeks to employ an Assistant Director for the Stable Isotope Laboratory to oversee daily operations and serve as a scientist conducting human nutrition basic and clinical research using stable isotopes. Participate in and complement the existing funded programs and develop independent projects. Major programs are obesity and cardiovascular disease. Research areas include obesity and energy expenditure, apolipoprotein, fatty acid, protein, and carbohydrate metabolism. Research facilities, scientific environment and funding are excellent (two isotope-ratio-MS with automated peripherals including GC-combustion, a third IRMS on order; a GC/LC-Quadruple-MS). Minimum qualifications: Ph.D. in Biomedical Physical Sciences of M.D. Schart and codesion medical/Physical Sciences or M.D. Salary and academic rank commensurate with qualifications and experience. Submit résumé, curriculum vitae, by June 7, 1993, to:

Evelyn P. Bennett, Assistant Director, HRM Ref: Stable Isotope Pennington Biomedical Research Center 6400 Perkins Road Baton Rouge, LA 70808

Louisiana State University/PBRC is an Equal Opportunity/Affirmative Action Employer.

### MOLECULAR IMMUNOLOGIST

At the University of Arizona Health Sciences Center. The position is tenure-track at the level of ASSISTANT PROFESSOR or ASSOCIATE PROFESSOR with an appointment in the Department of Microbiology and Immunology and at the Arizona Cancer Center. Applicants should have a Ph.D. or M.D. and have demonstrated expertise in the field. The successful candidate will be expected to develop an independent, competitive research program in cancer-related immunology and have an interest in the application of state-of-the-art immunological techniques to clinical problems. Women and minorities are encouraged to apply.

Submit curriculum vitae and 3 letters of recommenda-

tion to: Dr. John J. Marchalonis, Professor and Chairman, Microbiology and Immunology, Arizona Health Sciences Center, Tucson, AZ 85724. Applica-tions will begin to be considered July 1, 1993, until the position is filled. The University of Arizona is an Equal Opportunity/Affirmative Action Employer.

### MICROBIOLOGY/IMMUNOLOGY

The School of Podiatric Medicine at Barry University seeks applicants for ASSISTANT or ASSOCIATE PROFESSOR of Microbiology. Requirements: Ph.D. with preparation in microbiology, infectious disease, immunology; commitment to teaching podiatric medical students; preferred minimum of 5 years of full-time teaching/research experience. Responsibilities include lecture, laboratory and student advising. Send résumé, transcripts and three letters of recommendation to: Chet Evans, D.P.M., F.A.C.F.A.S., Dean, Barry University School of Podiatric Medicine, 11300 N.E. 2nd Avenue, Miami Shores, FL 33161.

ASSISTANT PROFESSOR OF PHARMACOL-OGY/TOXICOLOGY. Ohio Northern University is advertising a nine-month, tenure-track position. The individual will be entirely responsible for teaching toxicology to undergraduate pharmacy students. Participation tion in the teaching of appropriate areas of pathophysiology and pharmacology is also expected. Individual or collaborative research appropriate to the research mission collaborative research appropriate to the research mission of the College is also expected. A Ph.D. in Pharmacology/Toxicology is required. An undergraduate degree in pharmacy is desirable, but not required. The application and selection process begins immediately. Application deadline is June 18, 1993, or until a suitable candidate is identified. Application and inquires should be send to: Thomas P. Faulkner, Ph.D., Professor and Chair, Department of Pharmaceutical and Biomedical Sciences. College of Pharmaceutical und Biomedical Sciences. College of Pharmaceutical and Biomedical Sciences. ences, College of Pharmacy, Ohio Northern University, Ada, OH 45810. Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

### **POSITIONS OPEN**

### CELL AND MOLECULAR BIOLOGISTS

The Department of Cell and Molecular Biology at Lawrence Berkeley Laboratory seeks to fill two positions, one at the STAFF SCIENTIST level (rank equivalent to ASSISTANT to ASSOCIATE PROFESSOR) and one at the SENIOR SCIENTIST level (rank equivalent to ASSOCIATE to FULL PROFESSOR). Investigations are presented in the service of cell and projective biology with tors in any area of cell and molecular biology with a vigorous research program and extramural support are

vigorous research program and extramural support are encouraged to apply, but special consideration will be given to those taking molecular approaches to understanding the mechanisms of carcinogenesis.

The successful candidate will be eligible for generous start-up funds, newly renovated laboratory and office space, well-equipped facilities, along with the opportunity to join interactive and multidisciplinary programs within the Laboratory and to interact with outstanding investigators at LBL, UC Berkeley, and within the greater San Francisco Ray area.

greater San Francisco Bay area.

Send curriculum vitae, short synopsis of research in-terests, a list of publications, summary of current research support, and names of three references including address sey and telephone numbers by June 4, 1993, to: Dr. Judith Campisi, c/o Lawrence Berkeley Laboratory, Staffing Office, One Cyclotron Road, Building 90/1042, Berkeley, CA 94720. An Equal Opportunity Employer.

### NEUROSCIENTIST

The Department of Anatomy and Neurobiology at the Medical College of Pennsylvania seeks a Neuroscientist for a tenure-track position at the level of ASSOCIATE or FULL PROFESSOR. Applicants should have successful research programs that include cellular and/or molecular approaches and complement existing programs in the Department. The Department faculty are an interactive group with major interests in neural development and regeneration and synaptic physiology and plasticity. Truly outstanding candidates more suited to an appointment at the Assistant Professor level will also be considered.

Applicants should send curriculum vitae, a statement Applicants should send curriculum vitae, a statement of research interests and names of three referees to: Donald S. Faber, Ph.D., Professor and Chair, Department of Anatomy & Neurobiology, The Medical College of Pennsylvania, 3200 Henry Avenue, Philadelphia, PA 19129. Deadline for applications is July 1, 1993. The Medical College of Pennsylvania is an Affirmative Action/Equal Opportunity Employer and welcomes applications from qualified women and minorities.

### RESEARCH ASSISTANT/ ASSOCIATE PROFESSOR

A position is available at the rank of Assistant Professor (Research) or Associate Professor (Research) in the Division of Otolaryngology/Head and Neck Surgery for a Ph.D. director of the head and neck cancer biology laboratory to direct and conduct independent research in a new research laboratory in some aspect of head and neck cancer biology. The individual will also work with other investigators at Stanford University Medical Center in collaborative interdepartmental studies. The candidate should have completed a postdoctoral fellowship in either molecular biology, genetics, tumor immunology, or cancer biology. The candidate should have demonstrated experience in research with publications in peer-reviewed journals have at least two years of postdoctoral reviewed journals, have at least two years of postdoctoral experience and demonstrate capability in achieving independent funding.

Stanford University is committed to increasing representa-

tion of women and members of minority groups on its faculty and particularly encourages applications from such candidates. Letters of inquiry with curriculum vitae and the names

and addresses of four references should be sent to:

willard E. Fee, Jr., M.D.

Division of Otolaryngology/Head and Neck Surgery
Stanford University Medical Center
R-135 Edwards Building
Stanford, CA 94305-5328
Telephone: 415/725-6500
FAX: 415/725-8502

### **POSITIONS OPEN**

### COLUMBIA UNIVERSITY ASSOCIATE DIRECTOR TECHNOLOGY DEVELOPMENT

Columbia University seeks an Associate Director in its Office of Science and Technology Development. This office is responsible for the technology transfer between the University and industry. Working closely with the faculty, the incumbent obtains invention disclosures, evaluates inventions for technical and commercial value, contacts companies to market inventions and develop research collaborations, and negotiates license and research agreements. Ph.D. in science (prefer Health Sciences) or B.A./B.S. with three years of experience in health or biotechnology industries required. Knowledge of Health Sciences, business practices and intellec-tual property law necessary. Send résumé and salary history to: Employment Office, Box ST, 209 Dodge Hall, Columbia University, New York, NY 10027. We take Affirmative Action toward Equal Opportunity.

### Current Protocols in Immunology SERIES EDITOR

Current Protocols, a publisher of looseleaf, updated methods manuals, is seeking an immunologist, preferably in the Washington, D.C. or New York area, to serve as series editor of Current Protocols in Immunology. Considerable analytical and communication skills are required for this full-time position that can be set up in your home or in our offices. Duties include conducting quarterly meetings with editorial board members at the National Institutes of Health, enlisting authors, ensuring timely Institutes of Health, enlisting authors, ensuring timely manuscript delivery, reviewing manuscripts, corresponding with subscribers, and writing quarterly newsletter. Minimum requirements: Master's in immunology (Ph.D. preferred), lab experience, and tremendous writing skills. Helpful: editorial experience, home computer, proximity to D.C. or New York. Full benefits package; salary in \$40,000 range, commensurate with experience. Send curriculum vitae, writing sample, and a letter to: Current Protocols, Department CPI, 435 Ninth Street, Brooklyn, NY 11215.

### BASIC SCIENCE PROGRAM DIRECTOR

The Division of Critical Care in the Department of Pediatrics at Cooper Hospital/University Medical Center is seeking a Director of a newly formed basic science research program. This position would involve both teaching and supervising basic science research of critical care/neonatal attendings, fellows, and residents. Experience in cardio-pulmonary and/or receptor physiology is most desirable.

most desirable.

The position will have an appointment in the Department of Pediatrics at Robert Wood Johnson Medical/Camden. An affiliation with the Coriell Institute of Medical Research, located on the clinical campus, is possible. We offer laboratory space, support staff, and a very competitive salary for the Northeast region. Our location is 5 minutes from Philadelphia.

For further information, please contact:

Frank A. Briglia, M.D., M.P.H. Chief, Department of Pediatrics Cooper Hospital/University Medical Center 3 Cooper Plaza, Suite 520 Camden, NJ 08103 Telephone: (609) 342-2546 FAX: (609) 963-2514

### CONGLOMERATE **BUILDING LARGE TEAM**

Seeking scientists in neuroscience, biochemistry, bioengineering, pharmacology, molecular biology, genetics, endocrinology, psychiatry and nutrition for R&D in neurological and psychiatric disorders and mental illness. Full-time and consulting available. Excellent remuneration and equity. Box 32, Science Classified Advertising, 1333 H Street, N.W., Washington, DC



### CHALLENGING BIOMEDICAL EMPLOYMENT OPPORTUNITIES

### DHHS/PHS/FOOD AND DRUG ADMINISTRATION CENTER FOR BIOLOGICS EVALUATION AND RESEARCH CENTER FOR DRUG EVALUATION AND RESEARCH

The Centers for Biologics and Drug Evaluation and Research are searching for outstanding Physicians and Scientists interested in a challenge by participating in the development and approval process for new biological and drug products. Physicians and scientists serve on multidisciplinary scientific teams of highly skilled professionals. Duties may include reviewing and evaluating Investigational New Drug applications and biological product license or new drug applications; reviewing proposed labeling; evaluating adequacy of the methods, facilities and controls used for manufacture of biologics and/or drugs, and summarizing findings and making recommendations for approval or non-approval of applications. Some positions offer the unique opportunity to conduct biomedical research in combination with review responsibilities. These positions have a high degree of independence and involve complex medical, scientific, and regulatory issues. Opportunities for professional development may include further training, attendance at scientific meetings and conferences, and clinical activities.

Qualifications: Physicians must have completed all requirements for a Doctor of Medicine or Osteopathy Degree from an accredited institution. Graduates of foreign medical schools must submit a copy of their permanent Educational Commission for Foreign Medical Graduates (ECFMG) certification. Physicians should be board eligible or certified in a primary specialty or have completed at least four years residency training or possess equivalent experience. A background combining research experience with clinical medicine is preferred along with specialty training and expertise in one or more of the following areas: oncology, infectious diseases, hematology, rheumatology, epidemiology, pediatrics, pulmonary diseases, allergy, immunology, parasitic diseases, pathology, pediatric pulmonology, gastroenterology, or related disciplines. For scientists, doctoral level degrees in biological or physical sciences, pharmacology, toxicology, or related disciplines, along with advanced training and/or experience in the development, manufacturer or testing of biologics, drugs and/or antibiotics is desirable.

For all candidates, experience in the pharmaceutical industry along with computer applications would be desirable. In addition, candidates should have highly developed analytical, written and oral skills, as well as the ability to research problems and issues and to use mature judgment in problem solving.

Candidates for Civil Service or Commissioned Corps appointments must be U.S. citizens. Candidates for Fellowships may be either U.S. citizens or resident aliens eligible for citizenship within four years.

**Location:** Offices and laboratories are strategically located on the campus of the National Institutes of Health in Bethesda, Maryland, or in several locations throughout the Rockville, Maryland, area.

**Salary:** For **physicians**, Civil Service salary range for GS-13 through GS-15 is \$59,099 to \$91,029. In addition, some positions may include a Physicians' Comparability Allowance. For **scientists** (other than M.D.), Civil Service salary range for GS-11 through GS-15 is \$33,623 to \$86,589. Salary, benefits, research support, and level of responsibility are commensurate with education and experience. Also, positions may be filled by appointment in the U.S. Public Health Service, Commissioned Corps, or in the Fellowship Program, with commensurate salary and benefits.

**How To Apply:** Interested candidates should send an Application for Federal Employment (SF-171) and/or current detailed Curriculum Vitae along with bibliography, statement of regulatory/research interest, transcripts, and names of three references to:

FDA/Center for Biologics Evaluation & Research Attention: Ms. Blumenthal (71) Suite 200N - HFM-125 1401 Rockville Pike Rockville, Maryland 20852-1448 FDA/Center for Drug Evaluation and Research Attention: Ms. Alderman Rm. 6B-05 - HFD-20 5600 Fishers Lane Rockville, Maryland 20857

FDA IS AN EQUAL OPPORTUNITY EMPLOYER AND HAS A SMOKE FREE ENVIRONMENT

### DLANT PHARMACEUTICALS, INC.

### LEADERSHIP POSITIONS IN PHARMACEUTICAL RESEARCH

Plant Pharmaceuticals, Inc., is an exciting, venture-backed start-up company based in Worcester, MA. We are applying novel, world-class capabilities in plant tissue culture to the discovery and development of plant-derived compounds to treat

major human illnesses. A U.S. company, we have recently acquired a U.K. organization with strong credentials in plant cell biotechnology

We currently need to fill three important technical leadership positions. These management-level opportunities require seasoned research professionals capable of leading, motivating and managing a team of accomplished scientists and technologists. The people we hire will be flexible, creative, hard-driving managers who can make significant contributions to our fast-paced, entrepreneurial environment.

### **NATURAL PRODUCT CHEMISTRY**

The core technologies of this group are to isolate and identify active chemical entities from plant cell culture extracts. Medicinal synthesis of the simpler candidates will ultimately be involved. To lead this group you must have strong experience in natural product chemistry, encompassing a broad array of separative, analytical, identification and synthesis methodologies.

### **ANTI-INFECTIVE RESEARCH**

The focus of this group will be to identify several targets for important new infectious disease therapies and establish the biological screening systems to discover and develop products into clinical study. Emphasis will be placed on anti-fungal and anti-viral targets which can be approached through novel mechanisms of action.

### **BIOLOGICAL RESEARCH**

This group will establish biological screening systems in a number of therapeutic areas to identify active new chemical entities from an extensive library of plant cell culture extracts. Familiarity with screening paradigms used in pharmaceuticals/biotechnology is critical. Responsibilities will encompass the selection of high-throughput systems for initial screening as well as a range of secondary evaluation systems required to advance defined candidates to clinical study.

All three positions require a Ph.D. in a related science, a strong post-doctoral research record, and at least 5 years of outstanding experience in a major pharmaceutical or biotechnology company. We are located in a mid-sized Central Massachusetts city with access to major medical and university institutions in the Boston area. Please forward your curriculum vitae to Ms. Hilary Clayton, Human Resources, Dept. SC, Plant Pharmaceuticals, Inc., One Innovation Drive, Worcester, MA 01605. An equal opportunity employer.

### CHAIR, DEPARTMENT OF HEALTH POLICY AND MANAGEMENT THE JOHNS HOPKINS UNIVERSITY SCHOOL OF HYGIENE AND PUBLIC HEALTH

Nominations and applications are invited for the position of Chair, Department of Health Policy and Management. This prestigious department of more than 60 full-time faculty and 150 graduate students has an extensive and varied research agenda.

Programs of graduate and professional education are offered in health policy, economics, finance, organization and management, and health services research.

The research program focuses in the areas of: health care finance and technology; health related behavior; health and social policy; innovative health care systems; prevention of disease and injury; quality of care and health outcomes; and serving vulnerable populations.

The Department is also active in professional practice through the Health Program Alliance that provides technical assistance and continuing education to participating federal, state and local health agencies.

Candidates for this position should have an outstanding record of academic and research accomplishment, experience in health policy and practice, proven administrative abilities, and an interest in working collaboratively with colleagues in a school of public health with over 350 full-time faculty, as well as with those in the School of Medicine and School of Arts and Sciences. Imaginative leadership during this period of dynamic health system change is required.

Applications should be received by June 30, 1993 at the address below:

Dr. William A. Reinke

Chair, Health Policy and Management Search Committee The Johns Hopkins School of Hygiene and Public Health 615 N. Wolfe Street, Baltimore, MD 21205–2179 AA/EOE

### **DIRECTOR OF LIBRARIES**

### Mayo Foundation

Mayo Foundation is seeking a knowledgeable, innovative, dynamic individual to lead its library system. The director is responsible for the financial, technical and human resources of all Mayo libraries and reports directly to the Foundation's Director for Education. This person must integrate and oversee information systems that serve physicians, nurses, allied healthcare professionals, biomedical scientists and students in a wide variety of health-related programs, as well as supporting the information needs of Mayo's patients, hospitals and clinics. The Director must articulate a persuasive, achievable vision for the Mayo libraries and will implement an electronic biomedical information retrieval and management system.

Mayo has campuses in Rochester, Minn., Scottsdale, Ariz., Jacksonville, Fla., and other regional medical facilities. The libraries have a staff of 50, an annual budget of 4.3 million dollars, a collection of 337,000 volumes, and more than 4,250 medical and scientific journal subscriptions.

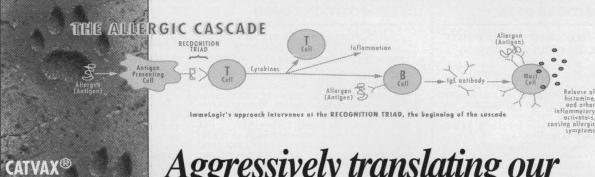
This position requires a distinguished career with a record of leadership and demonstrated expertise in library information systems. A graduate degree in library science, medical informatics or a related field is important.

SUBMIT A LETTER OF APPLICATION, CURRICULUM VITAE AND THREE REFERENCES BY JUNE 1, 1993, TO:



Alan D. Sessler, M.D. Division of Education/Mayo Foundation Rochester, MN 55905

Mayo Foundation is an affirmative action and equal opportunity educator and employer.



### Aggressively translating our science into therapeutic products.

At ImmuLogic, an expanding biopharmaceutical company, we're developing products to treat allergies and autoimmune diseases. Our approach, based on proprietary discoveries and an advanced molecular understanding, is designed to control, rather than mediate the specific initiating events in the immune system known as the Recognition Triad. Our ALLERVAX® products will cause T cells to become nonresponsive, and convert an allergic or disease reaction to a normal one. CATVAX, for allergy to cats, and our first therapeutic to begin Phase II Clinical Trials, has the potential to establish a new paradigm for treating immune disorders.

PHASE II

CLINICAL TRIALS INITIATED

Along with key industry partnerships, we've assembled a firstrate team of scientific professionals with a broad range of expertise. We're in a position to offer you exceptional opportunities and support for your professional stature. We reward your contribution with a competitive compensation and benefits package. Please send your C.V., referencing the department, to: Human Resources Department, ImmuLogic Pharmaceutical Corporation, 610 Lincoln Street, Waltham, MA 02154. An equal opportunity employer.

### RESEARCH

Director - Immunology

In this key position, you will manage and organize our immunology group directing a T cell epitope approach to the control of allergic diseases. Specifically, you will lead a research group to elucidate the mechanism of tolerance induction and the regulation of cytokine synthesis. You will perform administrative and research responsibilities and supervise a minimum of 10 researchers. Requires a Ph.D. in Immunology or a related field and a minimum of 12-15 years' experience directing at least 10 researchers. Demonstrated excellence in scientific research in immunology is required. **Dept. IMD.** 

### Scientists

As a member of a team of scientists interested in the control of the allergic response, we seek two qualified candidates to work in our immunology research group. In the first position, you'll perform T cell analysis and act as a project leader in our human immunology group. Requires a Ph.D. in Immunology or a related field and a minimum of 2-3 years' postdoctoral experience. Human T cell culture experience or allergy research in a related area preferred. **Dept. IM1.** 

In the **second** position, you will participate in research using the murine immune response as a model. Responsibilities include supervising assistants and direct experimental involvement. Requires a Ph.D. in Immunology or a related field and a minimum of 2-4 years' postdoctoral experience in the field of immunoregulation. Some molecular biology experience is a plus. **Dept. IM2.** 

### Scientist - Protein Chemistry

You'll be a member of a team of scientists working on the characterization of allergens and other biologically active molecules. Requires extensive experience in protein purification and analysis and the ability to actively participate in research programs. Qualifications: Ph.D. in Biochemistry and a minimum of 4 years' post-doctoral experience required. **Dept. PCS.** 

### **DISCOVERY RESEARCH**

### Senior Scientist

We are currently seeking a senior member of this newly formed group. You'll participate in the development, evaluation and performance of new research programs aimed at modulating the immune response. To qualify, you should have a strong scientific background in immunology, with experience in molecular and biochemical technologies, an excellent research record and experience supervising Ph.D. and technical staff. Requires a Ph.D. in Immunology/Microbiology/Biochemistry and a minimum of 10 years' experience. You should be familiar with current vaccine technologies, T cell regulation and activation and isotype regulation. Experience with mucosal/epithelial immunity is preferred. **Dept. DRS.** 

### PROCESS DEVELOPMENT

Scientist - Bioassay

You will develop and execute immunological assays required to support the preclinical and clinical analysis of our products. Responsibilities include assay development (EUSA, RIA and T cell functional), involvement in the generation of T and B cell hybridomas and participation in planning research efforts. Requires a Ph.D. in Biochemistry or a related field and a minimum of 2 years' experience in a research environment. **Dept. PDS.** 



GRASS allergy may be caused by 5 highly similar species of grass.



JAPANESE CEDAR affects approx. 8-10 million people in Japan.



RAGWEED,
a major allergen,
may cause debilitating symptoms
during late
summer and
early fall.



DUST MITES are extremely difficult to remove from living environments, and may cause asthmatic



The clear relationship between business and science.

### **POSITIONS OPEN**

### MOLECULAR VIROLOGISTS/ONCOLOGISTS TENURE-TRACK FACULTY POSITIONS

The Department of Microbiology and Immunology, Louisiana State University Medical Center (LSUMC), invites applications and nominations for tenure-track faculty positions at the levels of PROFESSOR, ASSOCIATE PROFESSOR, and ASSISTANT PROFESSOR. We seek outstanding candidates with postdoctoral experience and demonstrated ability to direct an independent research and demonstrated ability to direct an independent research program in the areas of molecular virology, viral genetics, and/or molecular investigations of HIV, oncogenes, tumor suppressor genes, or cancer. Candidates for senior positions must have a record of distinction in published research and in obtaining extramural research funding. Responsibilities include training doctoral and postdoctoral students and teaching in the property of the products and postdoctoral students and teaching in the product of the pr ing in courses for graduate and medical students. Faculty are provided generous seed funds and participation in a research incentive plan. LSUMC and this Department are in a phase of expansion with the construction of a ten-story Biomedical Research Institute, development of Centers for Cancer and Arthritis Research, and growth of the department's doctoral program. Applicants should send curriculum vitae, a stateprogram. Applicants should send curriculum vitae, a statement of research plans and funding, and three letters of reference to: Dr. Dennis J. O'Callaghan, Professor and Head, Department of Microbiology and Immunology, Louisiana State University Medical Center, 1501 Kings Highway, Shreveport, LA 71130–3032. LSUMC-S is an Affirmative Action/Equal Opportunity Employer.

Clarkson University, an Independent University located in a college-town environment of northern New York, has openings for two one-year appointments as visiting AS-SISTANT PROFESSOR of Biology. One individual should be able to teach Genetics, Microbiology (with labs), while the other individual will teach Developmental Biology and Immunology or other upper-level electives. Individuals with alternative combinations of the four courses are also encouraged to apply. One of the positions will have oversight responsibility of the Introductory Biology Laboratory teaching assistants. While these are primarily teaching positions, postdoctoral research in the general area of Cell Biology may be possible. Send letter of application, curriculum vitae, statement of teaching interapplication, curriculum vitae, statement of teaching interests and philosophy, and the names of three references to:
A. E. Linkins, Dean of Science, Clarkson University,
Potsdam, NY 13699–5800. Clarkson is an Equal Opportunity/Affirmative Action Employer. Position #475 & 476.

### FACULTY POSITION IN IMMUNOLOGY RESEARCH BRIGHAM AND WOMEN'S HOSPITAL AND HARVARD MEDICAL SCHOOL

The Department of Pathology, Brigham & Women's Hospital and Harvard Medical School, has an ASSIST-ANT PROFESSOR-level faculty position opening in the Immunology Research division. Expertise in molecthe Immunology Research division. Expertise in molecular immunology, especially T lymphocyte development and transgenic and homologous recombination technology, is preferred. Interested individuals should send curriculum vitae, statement of research interests, and two or more letters of recommendation to: Dr. Abul K. Abbas, 221 Longwood Avenue—LMRC-521, Boston, MA 02115. The Brigham & Women's Hospital is an Affirmative Action/Equal Opportunity Employer.

PHYSICS FACULTY POSITION: The Cotter Schools, Inc., Academy of Mathematics and Science (CSAMS) invites applications for a physics faculty position available in July 1993. CSAMS is a newly formed residential private secondary institution offering accelerated and trai private secondary institution oftening accelerated and enriched mathematics and science courses to motivated and talented students. CSAMS is part of the Saint Teresa Campus Schools, a new model for learning, which houses Cotter High School, the Preparatory School for Performing Arts, the Saint Mary's College of Minnesota Education Department, and the Winona State University Residential College. The successful candidate will show exceptional conlege. The successin candidate will show exceptionary promise to provide vision, focus, and innovation to the physics curriculum. Effective teaching and the ability to guide student research are essential. Ph.D. preferred, although all degree levels will be considered according to the above-stated selection criteria. Please send curriculum vitae, a brief description of teaching philosophy and scholarly interests, academic transcripts, and three letters of recommendation to: Dr. Peter Guidinger, Dean, Cotter Schools, Inc., Academy of Mathematics and Science, The Roger Bacon Center, 1165 West Broadway, Winona, MN 55987. The search committee will begin its evaluations on May 24, 1993. CSAMS is an Equal Opportunity/Affirmative Action Employer.

### **POSITIONS OPEN**

### VICTORIA UNIVERSITY OF WELLINGTON, NEW ZEALAND LECTURESHIP IN MARINE ECOLOGY

Applications are invited for the above post, available from January 1994. This is a permanent position, subject to a probationary period. The appointee will be responsible for an advanced undergraduate course in Marine Ecology and will contribute to undergraduate courses in Population Biology and General Zoology; he or she will be expected to supervise research students in Marine Ecology broadly, and specifically in areas of Quantitative Community Ecology, as well as to conduct research on New Zealand marine ecosystems and species. It is desirable that candidates have an interest or experience in invertebrate biology generally, in marine conservation, and/or the preservation and maintenance of marine or coastal environments.

Further enquiries may be made to: Dr. John Andrews, Chairperson, School of Biological Sciences (FAX: (64) 4 471 5331; Email: mcooper@matai.vuw.ac.nz). The salary scale for Lecturers is currently NZ\$37,440 to \$49,088 per annum.

Conditions of appointment and method of application are available from: Appointments Administrator, VUW, P.O. Box 600, Wellington, New Zealand (FAX: (64) 4 495 5238; Email: munroa@matai.vuw. ac.nz), with whom applications close on 30 June 1993.

THE UNIVERSITY IS AN EQUAL OPPORTU-NITY EMPLOYER.

BIOLOGICAL SCIENCE FACULTY: Full-time, academic year (9-month), tenure-track position commencing August 15, 1993. The person hired will be responsible for teaching Animal Physiology and should be capable of teaching Introductory Zoology. In addition, the person should have the interest and background to teach at least two of the following: Embryology, Ichthyology, Invertebrate Zoology, Entomology, Aquata Entomology, Part Control Cont ic Entomology, Pathophysiology, and/or Genetics. Can-didates must have a Ph.D. in one of the biological sciences and be committed to teaching in a quality undergraduate program. Demonstrated ability and interest in undergraduate teaching, advising, and in directing and guiding undergraduate research is essential.

Submit a letter of application, detailed curriculum vitae, and three letters of reference to: Office of Employee Relations, Administration Building, LAKE SUPE-RIOR STATE UNIVERSITY, Sault Ste. Marie, MI

### APPLICATION DEADLINE: MAY 28, 1993

An Equal Employment Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

### ROSS UNIVERSITY SCHOOL OF MEDICINE ACADEMIC POSTS

Invites nominations for Junior- and Senior-level FAC-ULTY APPOINTMENT POSITIONS for the following Basic Science departments:

- MICROBIOLOGY
   PHYSIOLOGY/PHARMACOLOGY
   ANATOMY/NEUROSCIENCE
- BEHAVIORAL SCIENCE

Applicants must have a Ph.D. and/or M.D. with prior teaching experience. Salary is negotiable. (Excellent tax benefits)

Campus Located on the Caribbean Island of Do-minica, West Indies. Qualified applicants please send curriculum vitae to:

Ross University School of Medicine Search Committee 460 West 34th Street, 12th floor New York, NY 10001

### UNIVERSITY OF WISCONSIN

POSTDOCTORAL POSITIONS (two) are available to study protein kinase (PNAS 89; 5222) and phospho-inositide kinase (JBC 265; 18012) regulation of secretion and cell division. Experience in molecular biology, biochemistry, or cell biology is required. Please send curriculum vitae and names of three references to: Dr. Richard A. Anderson, University of Wisconsin, Department of Pharmacology/Cell and Molecular Biology Program, 3640 Medical Sciences Center, 1300 University Avenue, Madison, WI 53706.

### **POSITIONS OPEN**

NEUROSCIENCE TENURE-TRACK FACUL-TY POSITION available, at the University of Wisconsin-Madison. The Department of Neurophysiology invites applications from individuals whose research emphasizes vertebrate cellular and/or molecular neurobiology. The successful candidate is expected to develop a ogy. The successful candidate is expected to develop vigorous independent research program and participate in the medical and graduate student teaching programs of the department. Applicants should send curriculum vitae, list of publications, summary of past work and accomplishments, a statement of future research plans, accompassments, a statement of nuture research plans, and three letters of reference to: J.F. Brugge, Chairman, Department of Neurophysiology, 275 Medical Sciences Building, Madison, WI 53706–1532. Applications will be considered beginning September 1, 1993. Women and minorities are especially encouraged to apply. Equal Opportunity/Affirmative Action Employer.

### EMINENT SCHOLAR IN BIOLOGICAL MACROMOLECULAR CRYSTALLOGRAPHY

In continued development of structural biology, the University of Georgia, Athens, is establishing a macromolecular X-ray crystallography facility. Toward this goal, the Department of Biochemistry and the Center for Metalloenzyme Studies are conducting a search to identify an established crystallographer to occupy an en-dowed Georgia Research Alliance Eminent Scholar po-sition and become Director of this new facility. The Eminent Scholar will participate in the selection of a University is committed to providing considerable resources to establish the facility, which will be located in the new Life Sciences Building. Many opportunities exist for collaboration with faculty members in several departments, programs, and centers. Send a letter briefly describing your research program, curriculum vitae, and the names of three references to: Dr. Robert A. Scott, the names of three references to: Dr. Robert A. Scott, Chair, Search Committee, Center for Metallocazyme Studies, Chemistry Building, University of Georgia, Athens, GA 30602–2556; Telephone: (706) 542-240; FAX: (706) 542-9454; Email: SCOTT @BSCF.UGA.EDU. Complete applications received by 30 June 1993 are assured of consideration. The University of Georgia is an Equal Opportunity/Affirmative Action Institution.

### FACULTY POSITION MORPHOLOGICAL SCIENCE ASSISTANT/ASSOCIATE PROFESSOR TEXAS A&M UNIVERSITY

The Department of Veterinary Anatomy and Public Health at Texas A&M University invites applications for a 12-month, fully budgeted, tenure-track position available September 1, 1993. Rank and salary are negotiable. The candidate must hold the Ph.D. and/or D.V.M. degree, have a strong background in the morphological sciences, a proven record of research productivity, and commitment to teaching. Postdoctoral training is desirable. The candidate must participate in the teaching of Microscopic Anatomy to professional and/or undergrad-uate students; establish an independent, extramurally funded research program in one of the focused research areas of the college (cell/molecular biology, reproductive/ developmental biology, comparative genetics, toxicology, food safety, or neuroscience). Priority consideration will be given to applications received by July 15, 1993, but the search will continue until position is filled. Send curriculum vitae, recent reprints, a description of research and teaching goals, a narrative describing teaching experience and expertise in modern teaching technology, and the names, addresses, and telephone numbers of 4 references to: Dr. George G. Stott, Department of Veterinary Anatomy and Public Health, College Station, TX 77843-4458; (Telephone (409) 845-2828). Texas A&M is an Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL POSITION in Molecular Genetics of B Cell Development

A position is available to examine mechanisms governing B cell development and expression of immunoglobulin genes using nontransformed cells as well as cell cultures. Successful applicants will have the opportunity to study cytokine and transcription factor regulation of B cell processes using both classical cell and state-of-the-art molecular biological approaches. Send curriculum vitae to: Christian Nelson/Kenneth Dorshkind—Department of Biochemistry, University of California at Riverside, Riverside, CA 92507.

### Scientists

Miles Inc., Diagnostics Division, a worldwide developer of clinical laboratory instruments, is expanding its research and development activities in the fast-growing and challenging area of automated, high sensitivity immunoassays.

There are immediate positions available for forward thinking R&D scientists, at the Ph.D. level, with solid academic training and 3-4 years' industrial or postdoctoral experience in immunochemistry, protein chemistry, or immunoassay development.

Challenging career opportunities are also available for highly motivated scientists at the BS/MS level with immunoassay product development experience.

The Diagnostics Division offers an environment conducive to professional growth as well as an excellent compensation and benefits program. Send CV in confidence to:

Manager of Human Resources, Technical Staffing, Miles Inc., Diagnostics Division, 511 **Benedict Ave., Tarrytown, NY 10591.** An Equal Opportunity Employer M/F/H/V.



**Diagnostics Division** 



The National Aeronautics & Space Administration (NASA) is accepting applications for the following Senior Executive Service (SES) vacancy:

Position:

Associate Administrator for

Mission to Planet Earth

Location:

NASA Headquarters,

Washington, DC

Salary Range:

\$92,9000 - \$115,700

The Associate Administrator for Mission to Planet Earth leads a broad Earth Sciences Research Program aimed at achieving a comprehensive understanding of the way the Earth functions as a natural system. The incumbent will be responsible for:

- establishment of scientific priorities

- selection and support of basic and applied research
   management of ground- and space-based components
   establishment and execution of Program policies
   institutional management of Goddard Space Flight Center

In addition, the incumbent will be responsible for defending and representing the Program within NASA and to external entities such as the Office of Management and Budget and the Congress.

Significant portions of the activity involve cooperative programs with other Government agencies and international partners. The largest single element of the space-based program is the Earth Observing System, an integrated series of satellites designed to monitor and understand global change.

Interested persons should contact Ms. Virginia Buettner, NASA HQ Personnel Division, at (202) 358-1543 for additional information concerning application requirements and instructions. Applications must be received by June 25, 1993.

### BS/MS **Molecular Biologists**

The field of pharmaceuticals and healthcare is more rewarding than ever as new products create a healthier world population. As one of the leaders in this dynamic industry, Pfizer Inc, a Fortune 100 company, is committed to continuing its remarkable growth

In bringing science to life, our international research-based company uses advanced techniques to generate new products, new areas of revenue and career opportunities that self-directed, talented people will find stimulating and rewarding.

As part of our continuing expansion in molecular biology, Pfizer has a number of new positions available for BS/MS level scientists. We seek highly motiviated individuals who will be able to apply molecular approaches to ongoing drug discovery efforts in a variety of disease areas. Candidates should have broad experience in molecular biology. Experience with cDNA synthesis. library construction/screening, polymerase chain reaction, protein expression, protein purification, or mammalian cell culture would be helpful. Knowledge of a particular disease area is useful but not required. Applicants for positions in the areas of osteoporosis, immunology, inflammation, cardiovascular disease, cancer, and neurosciences are being sought immediately.

The primary R&D facility for Pfizer Inc is located in a southeastern Connecticut shore community, giving easy access to the well known academic and cultural centers of the Northeast and offers the attractions of a New England lifestyle.

We offer competitive salaries and a full range of benefits including medical and dental insurance, paid holidays and vacations, educational assistance, 401k plan, pension plan, relocation assistance and more.

To learn how you can be part of the future of Pfizer, send your resume to: Mr. Kym Goddu, **Employee Resources Associate, Pfizer Inc,** Central Research Division, Eastern Point Road, Groton, CT 06340. We are an equal opportunity employer.



Central Research Bringing science to life.

### Faculty Position Climate, People, and Environment

Department of Atmospheric and Oceanic Sciences and the

Institute for Environmental Studies University of Wisconsin-Madison

The University of Wisconsin–Madison Interdisciplinary Climate, People, and Environment Program is focused on global problems that center on climate and human activity. This professorship is an appointment for an individual with a unique combination of disciplinary research skills, interdisciplinary capabilities, vision and leadership qualities who will accelerate the development of this program. With this program, we intend to continue the tradition of Professor Reid Bryson's orientation toward interdisciplinary Environmental Studies.

An appointment at the assistant, associate, or full professor level will be considered. The Department of Atmospheric and Oceanic Sciences (AOS), College of Letters and Science, will be the tenure home. The professor will hold a joint appointment in the Institute for Environmental Studies (IES). Responsibilities will include developing a vigorous interdisciplinary research program in AOS and IES involving the coupling between global atmospheric and biological systems. Academic responsibilities will involve teaching and advising graduate and undergraduate students in AOS as well as in IES.

AOS is the nucleus for a rich variety of research programs relating to earth system science. The 17 faculty members study a broad range of topics relating to the atmosphere and oceans. The department is especially strong in the study of climate and large scale satellite applications. The individual will be expected to enhance these departmental strengths through independent and collaborative research.

Approximately 75 IES faculty from 26 departments contribute to research, graduate and undergraduate instruction in a wide variety of environmental areas. The individual will be expected to enhance the representation of global issues within the IES through contributions to the Climate, People and Environment Program.

Preference will be given to individuals with a Ph.D. in atmospheric sciences combined with demonstrated capabilities in quantitative analysis and modeling of coupled systems, evidence of interdisciplinary talents, and leadership skills.

Applicants should send curriculum vitae, a statement of professional goals, and arrange for three letters of reference to be sent to:

AOS/IES Screening Committee c/o Professor David D. Houghton Department of Atmospheric and Oceanic Sciences 1225 West Dayton Street University of Wisconsin–Madison Madison, WI 53706

To ensure full consideration, completed applications should be received by June 27, 1993. Unless confidentiality is requested in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality.

THE UNIVERSITY OF WISCONSIN IS AN EQUAL OPPORTUNITY AFFIRMATIVE ACTION EMPLOYER. WOMEN AND MINORITIES ARE ENCOURAGED TO APPLY.

THE WISTAR
INSTITUTE
invites applications
for Assistant
Professor level
positions in the
following research
programs:



• Developmental Biology -

We seek expertise in the development of the immune, nervous and cardiovascular systems, with emphasis in gene expression and homologous recombination.

• Molecular Virology - We are looking for expertise in tumor virology and in viral vectors for gene therapy of the nervous system and of tumors.

The Wistar Institute is located on the University of Pennsylvania campus and is equipped with the latest biotechnology support facilities. Send curriculum vitae and the names of three references to: Faculty Search Committee, THE WISTAR INSTITUTE, 36th & Spruce Streets, Philadelphia, PA 19104.

We are an equal opportunity employer.

Baxter Diagnostics Inc. is a worldwide leader in supplying innovative diagnostic reagents. Due to our recently formed Biotechnology Center located in Miami, Florida, we currently have the following opportunities available:

### CLINICAL

### CHEMIST

esponsibilities include directing a group developing chemistry controls for diagnostics. Applicants must have a Ph.D. degree in Clinical Chemistry with experience in developing chemistry controls for diagnostics. Knowledge and experience in protein purification and enzyme stabilization are highly desirable. Candidates should have documented evidence of progressive administrative and leadership skills. Certification by the American Society of Pathologists in Clinical Pathology and subspecialty boards in clinical chemistry is preferred.

### Molecular

### **IMMUNOLOGIST**

his position will focus on the development of a program to enhance production of antibodies and recombinant proteins in hybridoma or other cell lines.

Candidates should have a Ph.D. in Immunology or a related field, experience with mammalian expression systems and a background in Molecular Biology.

### Mammalian Celi

### Expression Biologist

esponsibilities will include production of immunoglobulins and other recombinant proteins using mammalian cells in a bioreactor and development of vector-host systems for in vitro use. Applicants should have a Ph.D. degree in Immunology, Molecular Biology or Biochemistry and experience with large scale production of mammalian protein.

Baxter offers a competitive salary and benefits package along with solid career opportunities. Please forward your resume, indicating which position you are interested in, to: Baxter Diagnostics Inc., MS #F700, P.O. Box 520672, Miami, FL 33152. Equal Opportunity Employer. We conduct pre-employment drug testing.

**Baxter Diagnostics Inc.** 



### **Howard Hughes Medical Institute**

### International Program of Research Grants

### Eastern Europe and Former Soviet Union

The Howard Hughes Medical Institute anticipates establishing a program of international research grants for the following selected countries in Eastern Europe and the Former Soviet Union: Belarus, Czech Federal Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Russia, Slovak Federal Republic, and Ukraine. Awards will be based on peer review of submitted applications. Program announcements and application forms will be available June 1993. Awards will be announced in the fall of 1994.

It is expected that two types of five-year grants will be awarded: (1) grants for research conducted by scientists in eligible countries at their home institutions and (2) grants for collaborative research conducted jointly by a scientist at an institution in an eligible country and one who is not in an eligible country. Research must probe basic biological processes and disease mechanisms, in such fields as cell biology and regulation, genetics, immunology, neuroscience, and structural biology. Clinical trials or research on health education, health care delivery, or health services is not eligible for support under this initiative.

To be considered eligible for awards, scientists (1) must reside in an eligible country (or, if they currently live abroad, must plan to return to assume academic or research appointments at institutions in eligible countries), (2) must have made significant contributions to fundamental biomedical research, (3) must have published at least one scientific article in a peer-reviewed international English language journal or must provide a preprint in English of a publication arising from recent collaborative research with an established laboratory abroad, and (4) must not have major administrative responsibilities.

It is expected that about 40-60 grants will be awarded for research at home institutions and about 40-60 for collaborative research. Each grant will total about \$10,000-\$75,000 annually. The total program budget will be approximately \$3 million annually for five years.

Note that the program is still under development and is subject to change.

To request placement on the mailing list for the announcement and application, provide to the Institute your name, address, telephone number (including country code), fax number, and e-mail address.

Howard Hughes Medical Institute Office of Grants and Special Programs International Program 4000 Jones Bridge Road Chevy Chase, MD 20815-6789 United States of America

Telephone: 1-301-215-8884 Fax: 1-301-215-8888

Internet: hhmigfil@class.org

The Howard Hughes Medical Institute welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.

### **POSITIONS OPEN**

POSTDOCTORAL POSITION available to study the biochemical, cellular, and physiological properties of prion proteins, which play a key role in the pathogenesis of several neurodegenerative diseases in humans and or several neurouegenerative diseases in numans and animals, including Creutzfeldt-Jakob disease, kuru, and scrapie. Please send curriculum vitae, a statement of research interests and experience, and the names and addresses of three references to: Dr. David A. Harris, Department of Cell Biology and Physiology, Washington University School of Medicine, 660 South Euclid Avenue, St. Louis, MO 63110.

### POSTDOCTORAL POSITION IN LIPOPROTEIN MOLECULAR BIOLOGY UNIVERSITY OF WISCONSIN-MADISON

(1) Interactions of apoB domains with the LDL receptor using a novel lipoprotein expression system (*PNAS* **88**, 8530). (2) Gene therapy for lipoprotein disorders. We are using a "gene gun," a particle accelerator that bom-bards targeted cells with DNA-coated pellets to express therapeutic proteins in vivo. (3) Identification of LDL elevating and HDL-lowering genes in mutant animal models. Send curriculum vitae and 3 letters of recommendation to: Dr. Alan D. Attie, Department of Biochemistry, 420 Henry Mall, Madison, WI 53706.

### VOLLUM INSTITUTE FOR ADVANCED BIOMEDICAL RESEARCH OREGON HEALTH SCIENCES UNIVERSITY

POSTDOCTORAL POSITIONS available imme diately to study the newly described receptors for the proopiomelanocortin peptides (*Science* 257, 1248–1251, 1992). Ongoing projects include: (1) structure/function analysis using the MSH receptor as a model system (*Cell* 72, 827–834, 1993; *Nature* 362, 587–588, 1993) and (2) characterization of POMC receptors in the CNS and their role in homeostasis neurogeocine CNS, and their role in homeostasis, neuroendocrine function, and the stress response. Background in molecular biology, protein chemistry, and/or neurobiology is desirable. Applicants should send curriculum vitae, a short statement of research interests, and names of three references to: Dr. Roger D. Cone, Vollum Institute of Advanced Biomedical Research, 3181 S.W. Sam Jackson Park Road, Portland, OR97201.

### POSTDOCTORAL POSITION LYME DISEASE

To study the relationship of the Lyme disease spirochete to its arthropod vectors, vertebrate hosts, and risk factors for human infection. Prefer someone with working knowledge of ticks, vertebrates, and/or spirochetes Ph.D. in medical entomology, medical microbiology, epidemiology, or related field required. Salary range \$26,220 to \$27,360, depending on qualifications. Starting date c. 1 October 1993. Initial appointment for 12 months, may be renewable one or more times. Application deadline 1 August 1993. Send curriculum vitae, Robert S. Lane, Department of Entomological Sciences, 201 Wellman Hall, University of California, Berkeley, CA 94720. Telephone: (510) 642-4385.

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

### POSTDOCTORAL POSITION

### Metabolic Pathway Engineering of Thermophilic, Methylotropic Bacillus methanolicus

Postdoctoral position available July 15, 1993, for a Gram positive geneticist or molecular biologist to investigate the mechanism of allosteric regulation of key enzymes in the pathway of L-lysine biosynthesis in the thermophilic, methylotroph Bacillus methanolicus. The successful candidate will work with an existing team of scientists to develop useful gene transfer methods, sitescientists to develop useful gene transfer methods, site-specific mutagenesis, and enzymological approaches to investigate lysine and threonine regulation of key en-zymes in the pathway of lysine biosynthesis in thermo-philic bacilli. Experience in Gram positive genetics, mo-lecular biology, enzymology and microbiology desired. One to two years depending on funding and evaluation of performance. Salary negotiable. Send curriculum vi-tae, copies of recent publications and letters of recom-mendation to: Professor Michael C. Flickinger, De-partment of Biochemistry and Institute for Advanced partment of Biochemistry and Institute for Advanced Studies in Biological Process Technology, University of Minnesota, 1479 Gortner Avenue #240, St. Paul, MN 55108; FAX: (612) 625-1700.

The University of Minnesota is an Equal Opportunity Educator and Employer.

### **POSITIONS OPEN**

POSTDOCTORAL POSITIONS (2) to study the role of HCMV and HHV-6 transforming and transactivating genes in AIDS progression and AIDS-related cancer. Ph.D. with experience in molecular biology send curriculum vitae and 3 references to: Dr. Leonard Rosenthal, Department of Microbiology, Georgetown University Medical Center, 3900 Reservoir Road, N.W., Washington, DC 20007; Telephone: 202-687-1140; FAX: 202-687-1800. An Equal Opportunity Employer

POSTDOCTORAL POSITION in molecular endocrinology/developmental biology is available spring 1993 to study the placental/decidual prolactin gene family. See recent references for background information [J. Biol. Chem. 268:3136–42; 3298–305, 1993]. Experience in molecular biology and protein chemistry preferred. Send curriculum vitae and names of three references to the best of the process to the Michael L Scarce Descriptors of Physics 1993. ences to: Dr. Michael J. Soares, Department of Physiology, University of Kansas Medical Center, Kansas City, KS 66103, Telephone: (913) 588-5691; FAX: (913) 588-5677. The University of Kansas Medical Centers and Company of Compan ter is an Equal Opportunity/Affirmative Action Employer.

Immediate opening for POSTDOCTORAL ASSO-CIATE to develop spectroscopic-based immunoassay procedures. Previous experience in immunochemistry sesential; experience in spectroscopy desirable. Salary \$20,000 to \$25,000, depending upon experience. Position for 1 year with possible extension for second and third years upon mutual consent. Applications to: Business Manager, Department of Chemistry, Iowa State University, Ames, IA 50011. Iowa State University is an Affirmative Action/Equal Opportunity Employer.

### POSTDOCTORAL POSITION

NIJ-funded postdoctoral position available immediately to study forensic applications of mitochondrial DNA analysis. Previous experience with PCR and DNA sequencing desirable. Send (or FAX) curriculum vitae and the names and telephone numbers of three referees to:
Dr. Mark Stoneking, Department of Anthropology,
409 Carpenter, Pennsylvania State University, University Park, PA 16802. Telephone: 814-863-1078,
FAX: 814-863-1474. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to

POSTDOCTORAL POSITIONS (2) in Molecular Biology. Position A involves research studying the structure-function relationships of growth factors and their receptors, including signal transduction pathways (Wilson H. Burgess, Ph.D.). Position B involves research studying the regulation of FGF and FGF receptor gene expression in vascular cells and on the identification and characterization of FGF-inducible genes (Jeffrey A. Winkles, Ph.D.). Recent graduates with productive research background in molecular biology, cell biology or biochemistry are encouraged to apply. Candidates should apply to one or both of the above-mentioned investigators by sending curriculum vitae and the names telephone numbers of three references to: HOLLAND LABORATORY, American Red Cross, Department of Molecular Biology, 15601 Crabbs Branch Way, Rockville, MD 20855. We offer a very competitive salary, excellent employee benefits and a stimulating work environment.

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

POSTDOCTORAL POSITIONS in Neuroimmunology/Neuro-oncology at Harvard Medical School, to begin December 1, 1993. Goal is understanding and manipulating the immune response to CNS antigen, particularly disseminated tumor in the brain. Projects include selective control of leukocyte traffic, 3-D analysis of tumor-leukocyte interactions. Training in cellular immunology, molecular biology, or neuropathology desirable. Reply to: Dr. L. Lampson, Neurology, Brigham and Women's Hospital, Boston, MA 02115.

### MOLECULAR BIOLOGIST

POSTDOCTORAL POSITION available now to study neuronal-glial interactions. Applicant should have study neuronal-gual interactions. Applicant should have experience in library construction, screening and cloning. Send curriculum vitae and three letters of reference to: Evan B. Dreyer, M.D., Ph.D., Department of Ophthalmology, Harvard Medical School, Massachusetts Eye and Ear Infirmary, 243 Charles Street, Boston, MA 02114.

### **POSITIONS OPEN**

POSTDOCTORAL POSITION available immediately to study collagen gene expression in lung fibrosis and wound healing. Work will involve the investigation of transcriptional control mechanisms by growth factors, ransfection assays, footprinting assays, isolation of transcription factors, and transgenic mice. Experience with molecular biology techniques and/or protein isolation methods preferred. Please send curriculum vitae, letter of research interest and names of three references to: Dr. Barbara D. Smith, Biochemistry Department, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118.

POSTDOCTORAL POSITIONS: Molecular Mechanisms of Antisense Oligonucleotide Therapy. Positions available immediately for individuals with an rositions available infinediately for individuals with an interest in cancer pharmacology and a strong background in molecular biology. Send curriculum vitae and names of three references to: Dr. R. L. Juliano, Department of Pharmacology, UNC-CH, Chapel Hill, NC 27599–7365. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION—IMMUNOLO-GY: Immediate opening to study T cell-peptide-MHC interactions in rheumatoid arthritis. Cellular immunology and peptide chemistry experience required. Experience with phage expression libraries and recombinant DNA technology helpful. Candidates must be U.S. citizen. Send curriculum vitae, statement of research interest and names of three references to: Dr. Michael Davey, Oregon Health Sciences University & VA Medical Center, P.O. Box 1034, Portland, OR 97207.

POSTDOCTORAL AND RESEARCH ASSOCI-ATE POSITIONS available to investigate the molecular and biochemical regulation of the nitric oxide-gua-nylyl cyclase signalling pathway. Molecular/biochemistry and/or immunocytochemical expertise required. Send curriculum vitae to: Dr. Roger A. Johns, Box 238, University of Virginia Health Sciences Center, Char-lottesville, VA 22908. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL AND RESEARCH ASSOCI-ATE (B.S./M.S.) positions available immediately to study initiation and regulation of blood coagulation at the University of Texas Health Center at Tyler, Texas. Recent Ph.D. in biochemistry/molecular biology or related areas required for postdoctoral position; knowledge of blood coagulation preferred. Experience in cell culturing and protein purification preferred for research associate position. Send curriculum vitae and 2 references to:

Dr. L. Vijaya Mohan Rao, UCSD Medical Center (8423), 200 West Arbor Drive, San Diego, CA 92103.

POSTDOCTORAL FELLOWSHIPS AT HAR-VARD MEDICAL SCHOOL/BRIGHAM AND WOMEN'S HOSPITAL available to study the cellular and molecular mechanisms of autoimmune tissue injury. and molecular mechanisms of autoimmune tissue injury. Experience in immunology and/or molecular biology required. Send résumé and three references to: Dr. Vicki Rubin Kelley, Department of Medicine, Brigham and Women's Hospital, Boston, MA 02115. FAX: (617) 732-6392; Telephone: (617) 732-5915. HMS/BWH are Equal Opportunity Employers.

### POSTDOCTORAL RESEARCH ASSOCIATE BARLEY GENETICS/ QUALITY ENHANCEMENT

Plant and Soil Science Department MONTANA STATE UNIVERSITY

Non-tenure-track position available 1 July 1993 for two years to measure variation among barley lines for either feed or malting quality and to incorporate these data into ongoing barley genome mapping project. Required qualifications: Ph.D. in Biochemistry, Food Science, Animal Science, Genetics or related field. Application review begins 1 June 1993. Before applying, candidate of the control dates must request a full position description from: Dr. Tom Blake, Plant & Soil Science, Montana State University, Bozeman, MT 59717–0312. Telephone: 406-994-5055, FAX: 406-994-3933, Email: Blake @Hordeum.oscs.montana.edu. ADA/Equal Opportunity/Affirmative Action/Veterans Preference.

### Research & Development Opportunities

**Promega Corporation,** leading the biotechnology industry worldwide, is currently seeking qualified professionals to enhance our dynamic R&D team.

### SENIOR SCIENTISTS (Ph.D.)

Cellular Immunology-TR. Immunology/related degree and 2-4 yrs. postdoc research exp. In cellular/clinical immunoassay development required. Background developing, utilizing, researching contemporary immunology topics/techniques; familiarity with current literature in the field essential.

**Group Leader, Enzyme Discovery-JG.** Lead R&D scientists in enzyme discovery applicable to molecular biology. 10+ years exp. a must. 5 years management exp. essential; 5 years in a product setting preferred.

Molecular Biologist (Mammalian Expression Systems)-ES. Molecular biology degree or equivalent and expertise with tissue culture/nucleic acid manipulations. Postdoc/industrial gene mapping/cloning exp. preferred.

**Signal Transduction-SG.** Biochemistry, molecular endocrinology or cellular biology degree and proven record of research publication required. Extensive protein purification exp. a must.

### SCIENTISTS (M.S.)

**Bio/Organic Chemist-DS.** Chemistry or biochemistry degree & 3 yrs. exp. In synthesis of complex molecules required. Exp. with separation/analytical techniques (HPLC) and molecular biology a must. Knowledge of synthetic organic methods preferred.

**Cell Biology-TR.** Cell biology, Immunology, biotechnology or related degree required. Computer literacy, ability to develop experimental plans and exp. in cell culture/immunoassay techniques essential.

**Mammalian Expression Systems-ES.** Molecular biology or related degree and exp. with tissue culture, protein analyses and nucleic acid results required.

**Nucleic Acid Detection & Purification-CS.** Molecular biology/biochemistry degree and 3-5 yrs. lab exp. required. Exp. with Southern/Northern blot analysis, PCR, library construction, DNA/RNA manipulation essential.

**Signal Transduction-SG.** Biochemistry, molecular endocrinology or cellular biology degree and proven record of research publication required. Extensive protein purification exp. a must.

We offer competitive salaries, comprehensive benefits and a challenging, high-growth environment in our Midwestern facilities. Send resume, salary history and specific position of interest to: **PROMEGA CORPORATION**, **Human** 

Resources/(Position desired - Code), P.O. Box 7879, Madison, WI 53711-7879. NO AGENCY SOLICITATION AC-CEPTED. FOE.



Bristol-Myers Squibb Pharmaceutical Research Institute is the R&D Division of Bristol-Myers Squibb, a worldwide leader in the discovery and development of innovative pharmaceuticals.

### RESEARCH INVESTIGATOR

### **Macromolecular Structure**

We are seeking a Molecular Biologist with a Ph.D. plus 3-5 years' experience to express proteins and domain fragments for multidimensional NMR and X-ray crystallography studies. The ideal candidate will have prepared and purified several different N-15, C-13-enriched protein samples. Please send resume to **Dept. PRI-BM-703.** 

### POSTDOCTORAL FELLOWS

### Molecular Biology (Transgenic Unit)

A Postdoctoral Fellowship is available for a Molecular Biologist to study gene regulation during development using transgenic and knock-out approaches. Proficiency in Molecular and Cellular Biology is required. Please send resume and three letters of recommendation to **Dept. PRI-BM-702**.

### **Molecular Biology**

A Postdoctoral Fellowship is available for a Molecular Biologist to conduct basic research on the molecular mechanisms by which tyrosine protein kinases transmit signals in hemopoietic cells. Experiments will require molecular cloning of signal transducing enzymes, mutation analysis, expression in mammalian cells and identification of their products. Please send resume and three letters of recommendation to **Dept. PRI-BM-220**.

Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources Dept., P.O. Box 4000, Princeton, NJ 08543. We are an equal opportunity/affirmative action employer. We encourage qualified women and minority candidates to apply.





Here is an opportunity to work in a growing Biotechnology company. BW Manufacturing, Inc., based in Rhode Island, is a wholly owned subsidiary of Burroughs-Wellcome Co., and is one of the world's largest and most advanced biopharmaceutical manufacturing facilities. We currently have the following positions open:

### MANAGER OF TECHNICAL SERVICES

In this position, you will be responsible for managing all aspects of BWMI's Technical Services Program, including technology transfer and process improvements. This individual will also be managing all aspects of the company validation effort, including development, implementation, documentation and compliance. Requires MS, PhD in Biochemistry or related science. Minimum 7-10 years' hands-on experience validating utilities, equipment and processes used in Biotech in all aspects of cell culture manufacturing, including fermentation and purification.

### **OC LAB MANAGER**

You will be responsible for managing the Microbiology, Cell Culture, Analytical and Immunochemistry laboratories. Will also organize and manage assay development, assay qualification and validation; and be involved in establishing individual programs to support department activities in critical areas such as data processing and results tracking (LIMS). Requires MS, PhD in Biochemistry, Microbiology or related discipline. Minimum 7-10 years' hands-on experience in biotech laboratory setting (3-5 years' in a supervisory capacity). Familiarity with large scale cell culture, fermentation operations necessary. Demonstrated ability to develop and implement a biochemical QC lab supporting cell culture derived pharmaceuticals is essential.

We offer an excellent compensation and benefits package. Qualified candidates should forward their resumes to: Human Resources - Science, BW Manufacturing, Inc., 40 Technology Way, West Greenwich, RI 02817. An Equal Opportunity Employer, M/F/D/V.



BW Manufacturing, Inc.

### Faculty Position Medicinal and Natural Products Chemistry College of Pharmacy, University of Iowa

The Division of Medicinal and Natural Products Chemistry of the College of Pharmacy invites applications for a 12-month, tenure-track faculty position at the Assistant Professor level. Applicants must hold the Ph.D. degree in Medicinal and/or Natural Products Chemistry or related fields such as biochemistry, molecular biology, and synthetic organic chemistry. Postdoctoral experience is required. Candidates are expected to bring contemporary chemical, biochemical and/or biological approaches necessary to establish and maintain a ricorous, extramurally funded research program relating to design, discovery, or mechanism of action of biologically active substances. We encourage applicants with interests in research areas such as theoretical medicinal chemistry, medicinal immunology, molecular recognition, as well as other medicinal chemistry and natural products fields. The successful applicant is expected to participate in team-taught undergraduate courses, to develop and teach graduate course offerings and to attract graduate students to the Ph.D. program. Applications will be received until the position is filled. Interested applicants should submit a curriculum vitae; a statement indicating areas of research interest; and the names, addresses and telephone numbers of three references to: John P. N. Rosazza, Ph.D., Professor and Head, Medicinal and Natural Products Chemistry, College of Pharmacy, University of Iowa, Iowa City, Iowa 52242, (319) 335-8842, FAX (319) 335-8766. The University of lowa is an Affirmative Action and Equal Opportunity Employer.

When it comes to Biotechnology, Protein Chemistry and Down-Stream Processing look to Rhone-Poulenc Rorer, Armour Pharmaceutical Company. We're a world leader in this technology and well recognized for turning scientific challenges into achievements. We are currently seeking the following professionals to join our team:

### SENIOR RESEARCH SCIENTIST MANAGER PROCESS AND PRODUCT DEVELOPMENT

In these "hands-on" positions, you will lead a group of scientists responsible for developing new protein-based therapeutics and supporting new product implementation. Ideal candidates will have a Ph.D. in Biochemistry with supervisory experience in protein fractionation. Knowledge of immunology, separations technology and product scale-up would be helpful.

The location of our advanced manufacturing facility offers all the advantages of suburban living with proximity to Downtown Chicago's wealth of cultural activities. We offer an excellent benefits and compensation package. For confidential consideration, send a resume including salary history to: Steve Rosendahl, Manager of Staffing and Administration, Armour Pharmaceutical Company, P.O. Box 511, Kankakee, IL 60901. Equal Opportunity Employer. Nonsmoking environment.



ARMOUR PHARMACEUTICAL COMPANY



Pharmaceuticals, Inc.

Progenics is a privately held biopharmaceutical company specializing in the development of therapeutics, vaccines and diagnostics for HIV infection. The company is situated on a suburban campus in Westchester County, 20 miles north of Manhattan. Our rapid expansion is creating opportunities for scientists at all levels. We are particularly interested in individuals for the following positions:

### Senior Investigator - Immunology

Strong research background in cellular immunology, generation and characterization of monoclonal antibodies/ CTL's or immunotherapy. Requires a Ph.D. and a minimum of 4 years of postdoctoral experience, industrial experience preferred.

### **Production/Process Development Scientists**

Experience in one or more of the following: production of recombinant proteins in eucaryotic cells using bioreactors; protein purification; pilot scale production. Knowledge of regulatory affairs an asset

### **Staff Scientists/Postdoctoral Scientists**

Individuals with a Ph.D. and background in one or more of the following areas: immunology, cell and molecular biology, virology.

Candidates should send their C.V., a 1 page description of their research experience and the names and addresses of three references to:

Human Resources I, Progenics Pharmaceuticals, Inc. 777 Old Saw Mill River Road, Tarrytown, NY 10591

### WE'VE MADE IT OVER THE HORIZON

Setting a rapid pace in scientific and financial achievements, San Diego-based GENSIA PHARMACEUTICALS is a top-tier publicly-traded biopharmaceutical company driven by a sense of urgency in bringing innovative products to the acute-care hospital market. Our research programs are focused in the areas of cardiovascular disease, central nevous system, inflammation and diabetes. We have already completed our first multinational Phase III program and are in late Phase III with our second program, which incorporates a new drug and highly innovative computer-controlled delivery device. This success invites additional dedicated individuals to help us expand and share in our future growth.

Our location in San Diego offers many desirable lifestyle and professional benefits in the heart of one of the nation's biotech and academic centers of excellence.

### **Biochemistry**

PhD-level candidates in any of the following will be considered: Biochemistry, Cellular Pharmacology, Cell Biology or Genetics with extensive experience in intermediary metabolism. Responsibilities include measuring levels of normal cellular metabolites and drugs in cultured and isolated cells to study the effects of drugs and other stimuli on cellular metabolism and developing model systems to evaluate mechanisms of drug action. Candidates with experience in signal transduction including measurement of intermediates in such pathways are also encouraged to apply. Experience in engineering metabolic pathways in mammalian cells and/or yeast will earn special consideration. *Code SC/JA*.

### **Immunology**

The successful candidate will perform and supervise experimental research focusing on the effect of novel chemicals on animal models of inflammation. Qualified individuals should possess a PhD in Pharmacology/Immunology and at least 3–5 years of postdoctoral experience with specific training in immunohistochemistry, routine histologic techniques and developing models of inflammation. Drug discovery and industry experience are significant advantages. *Code SC/GF*.

### **Additional Opportunities**

GENSIA's rapid growth will lead us to expand the Research and Development staff throughout the year. Should your talents fall in the areas of **Research, Clinical Research, Pharmaceutical Development** and **Drug Delivery**, or **Regulatory Affairs**, we welcome you to send your resume and a letter indicating your interests and professional plans for our future reference.

Stock options, competitive salaries, progressive benefits and a stimulating work environment support the people who work for GENSIA. Please indicate the position of interest and code and send your *c.v.* to: **GENSIA PHARMACEUTICALS, INC., Human Resources/SCI212, 11025 Roselle St., San Diego, CA 92121–1204.** We are proud to offer equal opportunity employment and a culturally diverse workplace to everyone.





### ENDOWED CHAIR in BASIC ANESTHESIA RESEARCH

DIVISION OF ANESTHESIOLOGY and the RESEARCH INSTITUTE of the CLEVELAND CLINIC FOUNDATION

We are seeking a director for our basic anesthesia research program that is jointly sponsored by the Division of Anesthesiology and the Research Institute. The Cleveland Clinic has a long standing commitment to excellence in basic and applied biomedical research with an annual research budget in excess of \$50 million. The formation of this endowed chair recognizes the Clinic's traditional excellence in the clinical practice of anesthesiology and its commitment to basic anesthesia research. The successful candidate will possess an outstanding national reputation as a basic scientist using cellular and molecular approaches to study processes related to anesthesia, including, but not limited to, signaling pathways, ion pumps, hemodynamics and vascular reactivity, ischemia-reperfusion injury, and basic mechanisms of pain disorders. The candidate will be provided with generous start-up support including substantial endowment funds. Salary and fringe benefits are highly competitive

A curriculum vitae and names and addresses of three references should be sent to: Dr. Paul E. DiCorleto, Search Committee for the Endowed Chair in Basic Anesthesia Research, Cleveland Clinic Research Institute, NC10, 9500 Euclid Avenue, Cleveland, OH 44195. The Search Committee will receive applications through July 30, 1993.

The Cleveland Clinic Foundation is an Equal Opportunity Employer.

### **Adhesion Research**

The PARKE-DAVIS Pharmaceutical Research Division of Warner-Lambert Company has several excellent research opportunities for a Senior Scientist, a Postdoctoral Research Fellow and an Associate Scientist in lymphocyte-endothelial cell adhesion research. The positions are located in the Department of Immunopathology at PARKE-DAVIS' research facility in Ann Arbor, Michigan.

The candidates will play key roles in a wide ranging, interdepartmental research group studying molecular mechanisms of cell adhesion and activation. Prospective projects may involve characterization and cloning of proteins involved in tissue-specific targeting, transcriptional regulation of genes encoding adhesion molecules, and characterization of intracellular signalling pathways.

Successful applicants will have expertise, as evidenced by a strong publication record, in one of the following areas: adhesion molecules, transcriptional regulation, cellular activation or signal transduction. Experience in molecular biology is essential.

### Requirements:

**Senior Scientist** - Ph.D. and at least 3 years of postdoctoral experience in molecular biology, immunology, biochemistry or a related field.

**Postdoctoral Research Fellow** - Ph.D. in molecular biology, immunology, biochemistry or a related field.

**Associate Scientist** - BS/MS and experience in molecular biology, immunology, biochemistry, or a related field.

PARKE-DAVIS offers an excellent compensation program including a competitive salary and comprehensive benefits package. Qualified applicants should submit their curriculum vitae, a brief summary of their research interests, selected reprints and a list of 3 references to Box JDM-92432, Human Resources Department, PARKE-DAVIS Research Division, Warner-Lambert Company, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment"



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"Equal Opportunity in Action"

### Chair with Tenured Faculty Position in Health and Medical Sciences Program University of California, Berkeley

Chairperson of the Program in Health and Medical Sciences (HMS) at the University of California at Berkeley, with tenured appointment as Associate or Full Professor, 11 months, full time at Berkeley and an equivalent appointment at UCSF. Position will be available as early as January 1, 1994.

Qualifications: Medical degree with background in an appropriate field such as Epidemiology, Behavioral Sciences, Biological Sciences; professional, research, teaching, and administrative experience; evidence of ability to work with health professionals and scientists to integrate scientific and clinical knowledge. Applicant should be at the level of an Associate or Full Professor.

Duties: 1) Administration: To provide leadership for the HMS program. The HMS program is built around the highly innovative 3-year initial Berkeley M.S. phase of a 5-year Joint Medical Program (JMP) with UCSF where the students receive the M.D. degree. The 3 classes of the JMP at Berkeley have 12 students each. The entering class is selected by a bi-campus group from those eligible at UCSF who apply to the JMP. Student applicants desire a highly participative learning experience, heavy exposure to patients, community needs, practitioners, public and private health care and other institutions. They also complete an independent health-related M.S. research thesis of their choice. This requires appropriate elective course work, with an increasing emphasis on epidemiological and statistical preparation. The basic preclinical subjects are increasingly problem-oriented and heavily integrated with clinical material. The curriculum also emphasizes health policy, behavioral and ethical content. The goal of the JMP is for graduates to be capable of being excellent primary care physicians or of assuming a leadership role in any specialty or subspecialty but able to build on a base of humane, caring, broad, and scientifically well-prounded training.

2) Research: The Chair of HMS is expected to take advantage of the HMS location at a major general campus and to create effective research linkages with scholars of outstanding expertise in the increasingly health sector-relevant areas such as anthropology, demography, economics, education, epidemiology, ethics, geography, humanities, law, political science, public policy, public health, sociology, statistics. At the same time, the Chair will provide a health bridge to the biological and clinical sciences and to the UCSF health sciences campus.

3) Teaching: Develop and teach courses in the Chair's area of expertise and participate in curriculum planning for the JMP students and for other health-related groups on the campus, such as students in the HMS genetic counseling program. Participate in the counseling of HMS students and thesis supervision. Encourage and participate in research on medical education.

Salary negotiated in accordance with qualifications and level and step of appointment. Send by August 15, 1993, curriculum vitae, relevant publications, names of three potential references, and a statement of research, teaching, and administrative experiences and interests to: Chair, Search Committee for Chair of Health and Medical Sciences, 570 University Hall, University of California at Berkeley, Berkeley, CA 94720.

The University of California is an Equal Opportunity, Affirmative Action Employer.



Graduate and postdoctoral training opportunities in...

### Protein Trafficking and Compartmentalization

Jacques Baenziger - Role of glycosylation in reproduction and development.

Robert Fallon - Molecular mechanisms of receptormediated endocytosis and protein trafficking.

Clifford Harding - Antigen processing and presentation by macrophages and B cells.

David Harris - Molecular biology of prion diseases; trophic molecules involved in synaptic development. John Heuser - Electron microscopy of frozen cell or-

ganelles and molecules.
Rosalind Kornfeld - Glycoprotein biosynthesis and processing.

Stuart Kornfeld - Protein trafficking in mammalian cells,

and the biogenesis of lysosomes.

Maurine Linder - Signal transduction via GTP-binding

regulatory proteins; G-protein function..

Mike Mueckler - Synthesis and targeting of glucose

transporters.

David Parkinson - Transport and targeting of proteins in the secretory pathway.

Alan Schwartz - Cell surface receptors, intracellular targeting and degradation of proteins.

Phil Stahl - GTP binding proteins and receptor mediated endocytosis; the Mannose receptor.

Emil Unanue - Antigen processing and presentations.

...and others.

For additional information please write to Division of Biology and Biomedical Sciences, Department MJ, Campus Box 8226, 660 S. Euclid Ave., St. Louis, MO 63110-1093.

### **DIRECTOR**Division of Health Care Technology

The American Medical Association is seeking an experienced health care professional to direct current policy research, as well as develop new programs and initiatives in the area of technology assessment. Management responsibilities will include activities in clinical decision making, outcome measures, cost effectiveness analysis, and the Diagnostic and Therapeutic Technology Assessment (DATTA) program. These assessment issues will be expected to have a major impact on health care reform.

An M.D. degree is preferred, though a Ph.D. will be considered. Respondents must have previous research experience, familiarity with a broad range of technology and biomedical issues, and the ability to deliver effective presentations. Knowledge of clinical epidemiology, medical decision making, statistics, clinical research design and guideline development will be expected. Previous fiscal, staff and project managerial experience required. Familiarity with physician, patient and third-party payor needs designable.

This individual will be an important member of our staff and will receive an excellent compensation package. CVs may be sent to: Carol Sprague, Division of Placement, Dept. CS-SBA-2488, AMERICAN MEDICAL ASSOCIATION, 515 N. State Street, Chicago, Illinois 60610. Equal Opportunity Employer.

### American Medical Association

Physicians dedicated to the health of America



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### Research Scientist Gene Therapy

We are seeking a Ph.D. level scientist to join our established gene therapy group. The individual will develop a research



develop a research program focusing on non-viral methods for gene transfer in vivo. The successful candidate will have a proven record of scientific excellence and creativity as evidenced through publications in the scientific literature. Qualifications include a Ph.D. in molecular biology or cell biology and a minimum of three years of relevant post-doctoral experience.

Genzyme rewards success with an excellent compensation and benefits package, including 3 weeks' paid vacation, a 401(k) plan with a company match, extensive insurance benefits and an Employee Stock Purchase Plan. Please forward your resume to: Human Resources Department, Dept. S514, Genzyme Corporation, One Mountain Road, Framingham, MA 01701. An equal opportunity employer.

ADVANCING HEALTH CARE PRODUCTS AND SERVICES WORLDWIDE

### **Aviron**

Aviron is an exciting new San Francisco Bay Area biopharmaceutical company focused on the prevention of viral diseases. Aviron is using proprietary technology to develop live virus vaccines for major respiratory viruses and herpesviruses. This is an opportunity to work with an experienced management team, talented scientists, and a highly committed and distinguished scientific advisory board.

Staff Scientist positions require a Ph.D. degree and a minimum of two years of postdoctoral experience. Positions available:

### Respiratory Virus Vaccine Development

- Molecular virologists to develop innovative attenuation strategies. Broad experience with all aspects of molecular biology required; experience with reverse genetics required.
- Virologist to discover and characterize molecules regulating replication. Experience with molecular biology and in vivo models required.

### **Herpesvirus Vaccine Development**

- Molecular virologists to implement attenuation strategies for live herpesviruses vaccines. Experience with the herpesvirus family and all aspects of molecular biology required.
- Biochemist to purify and characterize viral proteins. Experience with large-scale protein purification techniques required.

Research Associate positions require a baccalaureate or M.S. degree and a minimum of two years of experience. Positions available:

- Virology
- Nucleic Acid Sequence Analysis
- Molecular Biology
- Cell Cuture

Don't miss this opportunity to make an impact on this young and dynamic company. Please send your c.v. and list of references to:

> Aviron Human Resources Dept. HR-3 1815 Old Country Road Belmont, CA 94002

### RESEARCH SCIENTIST

Seeking an individual with a strong record of scientific achievement to develop an independent research program. Applicants with a Ph.D. and/or M.D. degree and current federal research support are strongly encouraged to apply. Children's Hospital Oakland Research Institute (CHORI) is a well-equipped, basic research facility located on the campus of Children's Hospital Oakland. Current research programs encompass molecular biology, biochemistry, immunology, cell biology and mass spectrometry. CHORI offers a stimulating scientific environment with minimal teaching and administrative responsibilities, excellent compensation and benefits, combined with an ideal geographic location.

Oualified candidates should forward your application to Children's Hospital Oakland Personnel Department, Attention Bertram H. Lubin, M.D., Chair, Search Committee, 747 52nd Street, Oakland, CA 94609. Children's Hospital Oakland is an Equal Opportunity/Affirmative Action Employer.



PHARMINGEN is a rapidly growing biotechnology company that develops, manufactures, and markets cutting-edge products for immunology, cell biology, and molecular biology research. PharMingen offers a competitive salary and benefits package, including a 401 (k) plan, as well as a stimulating work environment at a beautiful coastal location in San Diego, California.

We invite all qualified candidates with strong scientific background to play a key role in the development of our products to serve the research community. Our continuous growth has resulted in the following opportunities:

QC Specialist - Flow Cytometry

Cell analysis and immunophenotyping using flow cytometry for validation and release of reagents for human immunology products. Background in hybridoma technology a plus. Background in immunology and cell biology; use of fluorochromes. BS/MS in Biological Science or equivalent. 2 years experience in prep of cells for flow cytometry analysis. Organizational skills for experimental design; interaction with various functional departments.

Scientist - Analytical Cytology
Characterization of monoclonal antibodies specific for human cell surface antigens through immunoassays, immunophenotyping and flow cytometry. Background in cytokine analyses and immunochemical analyses (Western blotting, ELISA). Immunoassays geared to product and reagent development using fluorochromes. MS/PhD in Immunology with 2-3 years experience in industrial setting in product development. Written and oral skills for participation in symposia.

Research Scientist - Cellular Immunology

Characterization of molecules governing cellular adhesion. Previous experience with leukocyte migration and role of adhesion molecules in inflammation a plus. Establish various assays to evaluate and QC monoclonal antibodies specific for a variety of cell adhesion molecules. PhD or BS/MS with 3-5 years relevant experience working with adhesion molecules. Strong preparatory and analytical (immunochemical) background a must. Excellent written and oral communication skills.

Protein Biochemist/Immunochemist

Lymphokine and antibody isolation/conjugation. BS/MS in Biochemistry with minimum 3 years experience. Strong preparatory and analytical (immunochemical) background a must. Excellent written and oral communication skills.

For immediate consideration, please send your resume, indicating position of interest, to: PHARMINGEN, Human Resources Manager, 11555 Sorrento Valley Road, San Diego, CA 92121. Equal Opportunity Employer.





### **GLAXO INSTITUTE FOR MOLECULAR BIOLOGY**

Research at the Glaxo Institute in Geneva is directed towards the discovery of novel molecular mechanisms that could be used as drug targets to treat serious diseases. In particular, research is directed in the long term at disorders of the nervous system, allergies and inflammatory conditions. We are undertaking a substantial new initiative in molecular and cellular studies of membrane ion channels and seek

### **POSTDOCTORAL FELLOWS**

### for Ion Channel Research

Applications are invited from candidates with a background in studies of receptors, channels or transporters using biophysical and/or molecular biological approaches. The successful candidates will join a growing multidisciplinary and international group of researchers investigating the structure and function of potassium channels and novel ligand-gated ion channels.

We offer an excellent compensation and benefits package and significant opportunities for career development. Geneva, centrally situated in an attractive part of Europe, has many advantages as a place to live. The Institute for Molecular Biology is part of the Glaxo group, one of the world's most successful health-care companies which has an outstanding reputation for the quality of both its research and products. The Institute provides a dynamic international research environment; it actively encourages the publication of results and presentations at professional meetings, and it has numerous collaborative projects with leading academic groups.

If you are interested in these positions, please send your curriculum vitae with a list of publications and the names of three referees to: Rita Gloor, Personnel Manager, Glaxo Institute for Molecular Biology, 14, chemin des Aulx, 1228 Plan-les-Ouates, Geneva, Switzerland.

Informal enquiries can be directed to Professor R. Alan North, Vollum Institute, Oregon Health Sciences University, Portland, OR97201, USA (phone: 1-503-4945463; fax: 1-503-4945470) or to Dr. Eric Kawashima at the Glaxo Institute (phone: 41-22-7069666; fax: 41-22-7948507).

IGAND Pharmaceuticals, an acknowledged leader in the field of intracellular receptor technology, seeks to provide novel drugs for the treatment of human disease. A newly formed group is focused on interferon signal transduction and its control of gene expression. Current efforts are designed to understand the interferon signaling system in more detail, expand the interferon model to other systems and exploit this technology to identify novel drug candidates. This group offers an excellent opportunity to combine advanced research with a state-of-the-art drug discovery effort.

The open positions require a PhD and a minimum of two years of postdoctoral experience in the following areas:

CELL BIOLOGY AND IMMUNOLOGY with extensive cell culture experience including functional assays of macrophage and lymphocyte proliferation and activation. A background in cytokine/growth factor research is extremely desirable.

MOLECULAR AND CELL BIOLOGY with experience in protein kinase and phosphatase research. Knowledge of signal transduction mechanisms of specific cytokines or growth factors is also required.

LIGAND provides an exciting intellectual environment with modern research facilities. We offer a competitive salary and benefits package, a premier team of colleagues and ample opportunities for scientific impact. Please forward your c.v. to: LIGAND Pharmaceuticals, Human Resources, Dept.

JR, 9393 Towne Centre
Drive, San Diego, CA

92121. EOE.

ICAgen, Ion Channel Advances, a newly-formed company devoted to understanding ion channel structure and function and to discovering novel therapeutics targeted at ion channels, is seeking directorlevel scientists to lead its research programs.

### Director-Level Scientists

ICAgen's approach is to bring a skilled and motivated team of scientists together to tackle the unlimited possibilities for the discovery of compounds which interact with ion channels. These scientists will work with established academic collaborators to increase understanding of ion channel structure/function/activity relationships.

Qualified applicants will have a Ph.D. and extensive experience in the biophysics, biochemistry, cell or molecular biology of ion channels. As leaders in ICAgen's efforts to discover ion channel modulators, its directors will assist in determining company directions and in developing strategies to ensure effective achievement of scientific/business objectives.

ICAgen offers a competitive compensation package and the professional challenge of a young and innovative company. The Company's location within the Research Triangle Park provides access to a world-class scientific community within a beautiful part of the Carolina countryside. Resumes, including references, should be sent to: Human Resources, ICAgen, Inc., 3500 Westgate Dr., Suite 900, Durham, NC 27707. An Equal Opportunity Employer.



### MOLECULAR BIOLOGIST/ BIOCHEMIST

J.T. Baker is a Total Quality company and a leader in the laboratory chemicals business since 1904 with products of superior quality, purity and performance. We are headquartered in Phillipsburg, NJ, directly across the Delaware River from the Lehigh Valley of Pennsylvania (Allentown/Bethlehem/Easton). Business operations are worldwide.

We are seeking a highly motivated candidate for the position of Molecular Biologist/Biochemist. The area of focus is our bioreagents product line.

Key responsibilities include applications and methods development, providing technical support to customers, assisting Marketing, Sales and Operations with technical input, and preparing and presenting seminars.

The candidate should have at least an M.S. in biochemistry or molecular biology with two to five years hands-on experience in biochemical and molecular biological techniques, such as gel electrophoresis, enzyme assays, PCR, and related methodologies. He/she should also have excellent oral and written communication skills and be willing to do some travel.

J.T. Baker offers a competitive salary and comprehensive benefits package including incentive, savings, dental and tuition reimbursement plans. In confidence, interested candidates should send their resume and salary requirements, along with a cover letter which is responsive to each requirement and preference, to Human Resources, J.T. BAKER, INC., 222 Red School Lane,

Phillipsburg, NJ 08865. Direct Applicants Only - No Telephone Calls, Resume must be received by May 28, 1993. Equal Opportunity Employer M/F



### The quality of R&D depends on the quality of the resources.

### SENIOR SCIENTIST Allergy

There are a number of components to success in the pharmaceutical research process. The most important is the people. And at Schering-Plough, we hire the best talent in the industry, and provide them with the technical resources they need to do their best work: the most advanced instrumentation; the latest computerized systems; modern lab facilities. Currently, we are spending more than \$500 million on R&D, and have just completed a \$300 million, 1 million square foot R&D facility in Kenilworth, New Jersey.

We are seeking a Senior Scientist to conduct on-going *in vivo* studies with cytokines and airway inflammation. This work will initially focus on evaluating antibodies to IL-5 for activity in relevant models of allergic disease. Studies will also be conducted to fully characterize the cellular and cytokine infiltration into allergic airways, and to correlate this data with changes in airway reactivity.

To qualify for this highly visible and challenging position, you must offer a

PhD in Physiology (or a related field) with 0-2 years of postdoctoral training.

We offer a highly competitive salary commensurate with your experience and education, superior benefits, and all the support an international industry leader can offer. For confidential consideration, please send your resume, indicating salary requirements, to: Ms. Kathy Bassinger, Schering-Plough Research Institute, Box DD-93-10, 2015 Galloping Hill Road, Kenilworth, New Jersey 07033. We are an equal opportunity employer.

The science of success



### **MARINE SCIENTIST—TWO POSITIONS**

The West Coast National Undersea Research Center, at the University of Alaska Fairbanks, is a recently established center for NOAA's National Undersea Research Program. The Center's mission is to promote, facilitate, and support quality undersea research along the West Coast of the United States including the western Arctic plus Antarctica.

SCIENCE DIRECTOR: The Science Director will be responsible for the direction and coordination of the undersea science program for the U.S. West Coast including the western Arctic plus Antarctica. Duties include (a) develop effective communication with research community, (b) develop and implement programmatic research themes, (c) prepare annual announcement of research opportunities and coordinate proposal review, (d) assist with preparation of the Center's annual report and proposal to NOAA, and (e) some supervision of Center staff. The Science Director will report to the Center Director. The Science Director will have the opportunity to maintain an independent research program.

STAFF SCIENTIST: The Staff Scientist's duties will be to interact and correspond with scientists interested in undersea research, particularly in the region of Oregon and Washington. The Staff Scientist will represent the Center at selected professional meetings and workshops. Also, the Staff Scientist will assist the Director and Science Director in: a) preparing the annual announcement of research opportunities, b) conducting peer reviews of research proposals received, c) writing the annual Center proposal to NOAA, d) expediting submission of reports from principal investigators, and drafting the annual report to NURP. The Staff Scientist will have the opportunity to maintain an independent research program.

Both positions are 12-month per year appointments. Required qualifications include an advanced degree (Ph.D. preferred) in Oceanography, Fisheries, or Marine Sciences and research experience with manned submersibles and ROVs or other undersea technology. Review of applications will begin June 7, 1993, and continue until the position is filled. Submit resume and names and addresses of three references to: Director, West Coast National Undersea Research Center, School of Fisheries and Ocean Sciences, University of Alaska Fairbanks, Fairbanks, AK 99775–1090.

The University of Alaska is an AA/EO employer and educational institution.

### RESEARCH SCIENTIST

VIAGENE, INC., is engaged in developing gene transfer therapeutics for viral diseases, cancers and genetic disorders. Our first gene transfer product for combating HIV is entering clinical trials and we expect to be one of the first companies to bring such products to market.

Qualified candidates will have a Ph.D. or M.D./Ph.D. with emphasis in Cell Biology, Immunology, and Hematopoiesis, and experience in Biomedical Research in an academic or industrial setting.

Located in San Diego, California, one of America's most attractive centers for biomedical research and education, Viagene offers competitive salaries and an excellent benefits package, including a stock option plan.

Please forward your CV to: Attn: Human Resources, Viagene, Inc., 11075 Roselle Street, San Diego, CA 92121. EOE M/F/D/V.



VIAGENE, INC.

### **POSITIONS OPEN**

### NEONATOLOGY/NEUROLOGY RESEARCH FELLOWSHIP

Reynolds Rich Smith Smith Fellowship available at Harvard Medical School for research training in development and function of the central nervous system relevant to the prevention and treatment of autism and related diseases. For individuals who have completed, or are in process of completing, requirements for board certification in neonatology or neurology, and will devote a majority of time to research training. Submit curriculum vitae, research proposal (2 pages or less), and sponsoring letter from research mentor by June 1, 1993, to: Reynolds Rich Smith Fellowship, Joint Program in Neonatology, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115. Telephone: 617-735-6366, FAX: 617-735-7677. Women and minorities are encouraged to apply.

### LABORATORY RESEARCH ASSOCIATE BARLEY AND WHEAT GENETICS

### Plant and Soil Science Department MONTANA STATE UNIVERSITY

Non-tenure-track position available 1 July 1993 for three years to convert RFLP markers to STS/PCR markers, sequence PCR products, manage molecular genetic laboratory. Required qualifications: M.S. in Genetics or related field, experience in cloning, genomic library management, DNA sequencing, lab management. Application review begins 1 June 1993. Before applying, candidates must request full position description from: Dr. Tom Blake, Plant & Soil Science, Montana State University, Bozeman, MT 59717-0312. Telephone: 406-994-5055; FAX: 406-994-3933, Email: Blake @Hordeum.oscs.montana.edu. ADA/Equal Opportunity/Affirmative Action/Veterans Preference.

### MOLECULAR NEUROSCIENCE

An NIH STAFF FELLOW position is available to study various aspects of gene expression following nerve injury or persistent noxious stimulation using new and novel molecular techniques in a new, fully equipped laboratory. Research interests should be focused on neurons of the dorsal root ganglia and spinal cord. Applicants should have a broad and in-depth knowledge of molecular biology, and postdoctoral experience. Please send curriculum vitae, summary of research experience, current research interests, and three letters of recommendation to: M. A. Ruda, Ph.D., Cellular and Molecular Mechanism Section, Neurobiology and Anesthesiology Branch, National Institute of Dental Research, National Institutes of Health, Building 49, Room 1A11, 9000 Rockville Pike, Rockville, MD 20892.

POSTDOCTORAL FELLOWSHIPS available (U.S. citizens/permanent residents) to address issues of signaling specificity for G-protein coupled receptors and cytokine signaling systems. Research efforts involve a multifaceted approach utilizing tools of molecular biology, protein chemistry and cell biology to identify determinants of signaling specificity and to define the receptor's microenvironment. Interactive research environment in a charming coastal area. Send curriculum vitae and three letters of reference to: Stephen M. Lanier, Ph.D., Department of Pharmacology, Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOW—Position open for Postdoctorate Fellow to study systemic and renal hemodynamics and changes in vasoactive humoral substances and their interaction with divalent ion nutrition. Ph.D. in physiology or pharmacology required. This position is for two years of support. Salary is negotiable. Closing date June 15, 1993. Submit curriculum vitae to: Edward Zawada, 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.

### **POSITIONS OPEN**

### IMMUNOLOGY POSTDOCTORAL FELLOWSHIP UNIVERSITY OF VIRGINIA

Applications are invited for a postdoctoral position in autoimmunity research. Projects relate to tolerance induction and peptide antigen mimicry in autoimmune models. A strong background in basic immunology is essential. Send curriculum vitae, names and telephone numbers of three references to: Dr. Kenneth Tung, Department of Pathology, Box 214, University of Virginia, Health Sciences Center, Charlottesville, VA 22908.

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE position is available to investigate protein phosphorylation and Ca<sup>2+</sup> signaling mechanisms associated with contraction of vascular/visceral smooth muscle. Studies include experiments with intact and permeabilized smooth muscle as well as imaging techniques with cultured cells. Salary is competitive and negotiable. Position is for 2 to 3 years. Candidates should send curriculum vitae and 2 letters of reference to: Dr. J. Di Salvo, Department of Medical and Molecular Physiology, School of Medicine, University of Minnesota–Duluth, 10 University Drive, Duluth, MN 55812–2487.

UMD is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOW to study plant-related signaling mechanisms in alginate synthesis, a potential virulence factor, in the phytopathogen Pseudomonas syningae. Experience in techniques such as DNA sequencing and site-directed mutagenesis is required. The work, to be performed at Oklahoma State University, Stillwater, is a collaboration between the former and the University of Illinois. Annual salary is \$24,000. Résumés to: Dr. C. Bender, 110 Noble Research Center, OSU, Stillwater, OK 74078; or to: Dr. A. Chakrabarty, Department of Microbiology, M/C 790, UIC, 901 South Wolcott, Chicago, IL 60612–7344. OSU and UIC are Equal Opportunity/Affirmative Action Employers.

### POSTDOCTORAL RESEARCH FELLOWSHIP

A position is available to study the cellular and molecular mechanisms by which insulin regulates gene expression in mammalian cells. Applicants should have a Ph.D. and/or M.D. with a strong background in cellular and molecular biology. Send curriculum vitae and the names of three references to: Dr. Leonard Jarett, Chairman, Department of Pathology and Laboratory Medicine, Hospital of the University of Pennsylvania School of Medicine, 6 Gates Building, 3400 Spruce Street, Philadelphia, PA 19104. Affirmative Action/Equal Opportunity Employer, M/F/D/V.

A POSTDOCTORAL RESEARCH ASSOCIATE position is available for NIH-funded research for a recent Ph.D. graduate to study molecular mechanisms of cell cycle control, G1 check points including p53, and how these may be manipulated to influence cell death processes in neoplastic cells. Applicants should have a strong background in molecular biology techniques including cloning, PCR sequencing, directed mutagenesis, engineering constructs under inducible promoters, use of retroviral vectors, transfection techniques. Send curriculum vitae with names of 3 references to: Dr. J. Houghton, Department of Molecular Pharmacology, St. Jude Children's Research Hospital, 332 North Lauderdale, Memphis, TN 38101. Equal Opportunity/Affirmative Action Employer.

Several POSTDOCTORAL/RESEARCH ASSOCIATE POSITIONS are available for well-qualified individuals to join a laboratory studying structure, function and gene regulation of acidic FGF in mammalian and amphibian cells. The successful candidates will have training in molecular biology and/or biochemistry. Individuals with previous postdoctoral experience are encouraged to apply. Salaries commensurate with experience. Interested individuals should forward curriculum vitae and the names and addresses of three references to: Dr. Ing-Ming Chiu, Davis Medical Research Center, The Ohio State University, 480 West Ninth Avenue, Columbus, OH 43210.

### **POSITIONS OPEN**

### POSTDOCTORAL RESEARCH ASSOCIATE MOLECULAR VIROLOGY

Seeking applicants for a two-year, non-tenure-leading Postdoctoral Research Associate position dependent upon approval of extramural funds. Will join an active research group studying the molecular biology of pestiviruses and carry out research aimed at understanding the function of cis- and trans-acting elements in the genomes of BVDV and related pestiviruses. Applicants should hold a doctoral degree and have previous research experience with the molecular biology of prokaryotic/eukaryotic cells and/or viruses. Significant experience with relevant molecular biology techniques (i.e., cloning, sequencing, blotting, PCR) is necessary. Knowledge of classical virological techniques and eukaryotic cell biology would be advantageous. Requires an innovative researcher with relevant experience and primary research interests in molecular virology and pathogenesis. Submit curriculum vitae and names of two referees by July 15, 1993, (or until suitable candidate is found) to: Dr. Ruben Donis, Department of Veterinary and Biomedical Sciences, University of Nebraska–Lincoln, 120 VBS, Lincoln, NE 68583–0905; FAX: 402/472-9690, Email: RDONIS@UNL.EDU or RDONIS@UNLVAX1. UNL is committed to a pluralistic campus community through Affirmative Action and Equal Opportunity and is responsive to the needs of dual-career couples. We assure reasonable accommodation under the Americans With Disabilities Act.

POSTDOCTORAL RESEARCH—Two projects available at Tyndall Air Force Base in Panama City, Florida, for recent (last 3 years preferred) doctoral degree recipients in biochemistry, microbiology, or related discipline. One project involves bacterial degradation of organic pollutants in groundwater. The other involves isolation and characterization of redox proteins in sediments and plant material. Contact: Postgraduate Research Program/TAFB, Science/Engineering Education Division, Oak Ridge Institute for Science and Education, P.O. Box 117, Oak Ridge, TN 37831–0117, Telephone: (615) 576-3456.

BIOTECHNOLOGY/ PHARMACEUTICAL Nationwide Career Opportunities RESEARCH ASSISTANTS ASSISTANT/ASSOCIATE SCIENTISTS

> James E. Iannoni and Associates P.O. Box 66 Hampton, CT 06247 Telephone: 203-455-0151 Fee company paid.

RESEARCH ASSOCIATE—NEW YORK. The Division of Gastroenterology of the Brookdale Hospital Medical Center seeks a Research Associate possessing a Ph.D. degree with expertise in gastrointestinal physiology, gastrointestinal motility, neural and peptidergic control of gastrointestinal function to operate the clinical motility laboratory and to lead the research in the division. Responsibilities also include teaching fellows. Submit curriculum vitae and names of three references to: Hulya Levendoglu, M.D., Chief, Division of Gastroenterology, The Brookdale Hospital Medical Center, Linden Boulevard at Brookdale Plaza, Brooklyn, NY 11212. Equal Opportunity Employer.

ASSOCIATE RESEARCH SCIENTIST is needed with at least 3 years of postdoctoral experience in molecular genetics and biochemistry. The experience must encompass DNA cloning and recombinant DNA methods including PCR methods, construction of transgenic mice, disruption of murine genes by homologous recombination, generation of chimeric mice with ES cell implantation methods. The investigator must have a thorough working knowledge of neurobiology, in particular of neurotrophic factors. A strong background in chemistry is also desired. Please send curriculum vitae to: Dr. David Hirsh, Department of Biochemistry and Molecular Biophysics, Columbia University, 630 West 168th Street, New York, NY 10032.

Columbia University takes Affirmative Action to ensure Equal Opportunity.

It is becoming increasingly clear that human health is intricately related to our chemical and physical surroundings. The development of environmental strategies for dealing with these relationships is often based on health risk assessments. Recognizing the interdependence between health and environment, the

### Medical University of South Carolina offers a graduate program in Environmental Risk Assessment leading to the Doctor of Philosophy degree.

The core curriculum of the program consists of courses in risk assessment, biostatistics, epidemiology, systems science, environmental biolomy and toxicology, policy and regulatory issues, and two interdisciplinary case studies courses. This core is complemented with electives in advanced topics of risk assessment, such as exposure assessment and pharmacokinetics, risk modeling, and computing. Furthermore, electives in various areas of biology, toxicology, health-related sciences, and policy studies are available. The program is administered by the Department of Biostatistics, Epidemiology, and Systems Science, under the direction of David G. Hoel and Eberhard O. Voit, but also draws expertise from basic science and policy departments.

Students with a Bachelor's or Master's degree in the biomedical, mathematical, or engineering sciences are encouraged to apply. Financial support is available on a competitive basis. For further information contact: Ms. Joy Sharkey, Department of Biostatistics, Epidemiology, and Systems Science, Medical University of South Carolina, Charleston, SC 29425-2503, (803) 792-1578.

Department of Agronomy, University of Illinois at Urbana-Champaign invites applications for full time Assistant Professor of Soil Fertility/Mineral Nutrition. Emphasis on soil-plant relations including soil fertility, mineral nutrition, nutrient cycling, nutrient use efficiencies, new technologies for nutrient management, or environmental fate of nutrients. 9-month tenure-track position, 75% research, 25% teaching; opportunity for summer appt. Develop successful extramurally-funded research program in soil fertility/mineral nutrition addressing fundamental and adaptive problems of nutrient management in soils, min-eral nutrition, and nutrient cycling in Illinois and other midwestern cropping systems. Fieldbased research supported by complementary greenhouse and laboratory strategies. Teach minimum of one course per academic year. Advise graduate and undergraduate students. Ph.D. in Soils, Agronomy, or related discipline and strong training and experience in soil fertility/chemistry and mineral nutrition required. Additional training in plant physiology, experimental design, and applied statistics and broad knowledge of scientific principles to soil management and crop production practices desired. Salary commensurate with training and experience. Starting date January 21, 1994, or when suitable candidate available. Closing date September 15, 1993, or until suitable candidate identified. Submit application dossier consisting of a personal statement of research and teaching goals, and reasons for interest in the position; curriculum vitae; copies of transcripts; and three letters of reference to Professor G. H. Heichel, Head, Department of Agronomy, University of Illinois at Urbana/Champaign, 1102 South Goodwin Ave-nue, Urbana, Illinois 61801–4798. Telephone: (217) 333-9480. For additional information contact: Dr. Wayne L. Banwart, (217) 333-9480. THE UNIVERSITY OF ILLINOIS IS AN AFFIR-MATIVE ACTION/EQUAL OPPORTUNITY EM-PLOYER. PLEASE CITE ANNOUNCEMENT NUMBER 3735-4/93C WHEN APPLYING.



### **Controllable Gene Therapies**

Medicines for the Next Millennium

GENEMEDICINE, INC. is a new company focused on the development of controllable *in vivo* gene therapies. We are seeking a select group of bright and highly motivated individuals to pioneer our scientific and clinical programs.

### STAFF SCIENTISTS

We wish to appoint experimental scientists to lead groups responsible for the design and implementation of our scientific activities. These positions have significant growth potential and are available in the following areas:

### **MOLECULAR & CELL BIOLOGY**

You will be responsible for the design and development of DNA vectors that have tissue-specific function and provide for controlled activation of *in vivo* gene expression. Applicants must have a Ph.D. plus 2 to 5 years experience.

### **VECTOR PRODUCTION & PROCESS DEVELOPMENT**

You will be responsible for the design, development and scale-up of DNA vector production and purification to GLP and GMP standards. Applicants will have a Ph.D. or a M.S. and substantial industrial biotechnology experience.

### **PHARMACOLOGY/PHARMACOKINETICS**

Your responsibilities will be the design, development and analysis of studies to determine the behavior of DNA vectors in normal and diseased animal models. Applicants must have a Ph.D. or D.V.M. plus 5 years experience in pharmacology, pharmacokinetics or pathophysiology.

### FORMULATION SCIENCE

You will be responsible for optimizing the formulation of DNA vectors. Applicants will have a Ph.D. and at least 2 years experience in the formulation of colloidal systems.

### PHYSICAL AND BIOPHYSICAL ANALYSIS

Your role will be to assess the physical and biophysical characteristics of DNA vectors. You will have a Ph.D. and at least 2 years relevant experience in determining the colloidal properties of macromolecules and particulate systems.

### STAFF ASSOCIATES

We wish to make a number of technical appointments in each of the areas given above. We seek individuals with demonstrated technical skills, strong work ethic, excellent academic training and a desire to learn and to grow. Candidates will have a B.S. or a M.S. plus at least 2 years experience.

GENEMEDICINE is backed by several of the most successful venture capital investors in biotechnology, has strong ties to the laboratories of its scientific founders at Baylor College of Medicine and is located close to the Texas Medical Center—the world's largest medical research facility. We offer a highly competitive compensation package including stock options. For confidential consideration, please send your CV and a letter outlining the applicability of your background for the position of interest to:

GENEMEDICINE, INC., Human Resources Director, 8080 North Stadium Drive, Suite 2100, Houston, TX 77054-1823

An Equal Opportunity Employer

GENEMEDICINE, INC.

### **ASSISTANT PROFESSOR/ASSOCIATE PROFESSOR GROSS ANATOMY**

Applications are being accepted for a tenure-track gross anatomy position at the assistant or associate professor level in the Department of Anatomy, College of Medicine, University of South Florida, Tampa, Florida. Earliest starting date for this position is September 1, 1993.

Individuals should have a proven record of research and publication, with a demonstrated ability or a potential to attract extramural funding. Candidates are required to hold a Ph.D. in anatomy or cell biology, or a combination of Ph.D./M.D. Postdoctoral experience and prior teaching in a medical school gross anatomy course are mandatory requirements. Preference will be given applicants with research interest and experience in cell and molecular biology applied to areas of neuroscience, reproductive or cardiovascular systems. Teaching responsibility involves participation in a one-term dissectionbased gross anatomy course for medical students and graduate level courses related to their specialty.

The College of Medicine, University of South Florida, is a 22-year old medical school with a class of 96 Freshman students. The medical curriculum is traditional, but changes to a more contemporary curriculum are contemplated within the next couple of years.

Applicants should forward curriculum vitae, statement of research interests, and names of three references by July 15, 1993 to:

Dr. Johannes A. G. Rhodin, M.D., Ph.D., Chairman Department of Anatomy, College of Medicine University of South Florida 12901 Bruce B. Downs Boulevard, MDC Box 6 Tampa, Florida 33612-4799

The University of South Florida is an Equal Opportunity/Affirmative Action/Equal Access Employer.

### DICKINSO

### **SCIENTIST** Molecular Biology

**B**ecton Dickinson Research Center is expanding its corporate program in the development of DNA probe-based technology for diagnostic applications. Innovative and highly-motivated scientists are invited to submit an application to join a multi-disciplinary team of investigators working on novel nucleic acid amplification technologies.

A position is now available for a Ph.D.-level scientist to join our amplification development group. You will be involved in the development of improved nucleic acid amplification systems based upon novel enzymatic methods.

The successful candidate must have a doctorate degree in biochemistry or molecular biology with at least two years of postdoctoral experience and a published record of accomplishment. A strong mechanistic understanding of restriction enzymes and DNA polymerases is highly desirable.

For immediate consideration, please send your resume to: Human Resources, Becton Dickinson & Company Research Center, 21 Davis Drive, Research Triangle Park, NC 27709. AA/EEO Employer.

> BECTON DICKINSON

DISCOVERY REWARDS 0 F

### **Associate Director National Science Resources Center**

The National Science Resources Center (NSRC) is seeking an associate director to manage NSRC information dissemination, rexternal liaison, and development activi-ties. Responsibilities include managing NSRC programs to disseminate informa-tion on effective science teaching resources through resource collections, computer databases, and published resource guides; coordinating development of telecommunications networks to assist regional, state, and local leaders working to improve the teaching of science in the schools; developing cooperative relationships with corporations, foundations, educational organiza-tions, and scientific and engineering societ-ies that are actively involved in science education; and contributing to the develop-ment of new NSRC initiatives. Position requires Ph.D. or equivalent in a scientific or technical field, preferably related to precollege science education, and at least 4 years of directly related experience and interaction with external and internal executives, leaders in science education re-form, scientists and engineers, and representatives from business, industry, and private foundations. We offer a salary commensurate with experience and an excepmensurate with experience and an exceptional benefits package. Please send resume in confidence to: NSRC Administrative Officer, Smithsonian Institution MRC-403, Arts & Industries Building, Room 1201, Washington,

DC 20560 (EOE)

### **UNIVERSITY OF GENEVA** (SWITZERLAND) **FACULTY OF MEDICINE**

### Department of Medical Biochemistry

The Department is looking for an outstanding young investigator, to create and lead a small independent research group working on an interesting aspect of biochemistry or molecular biology. This tenuretrack position is made available within the framework of the Program in Molecular and Cellular Biology of the Faculty of Medicine.

For applications and further enquiries, please contact:

Office of the Dean **Faculty of Medicine** Centre Médical Universitaire 1211 Geneva 4 Switzerland

Tel: (41.22) 702.50.33 Fax: (41.22) 372.49.31

Deadline for applications on July 15, 1993.

Marquette University School of Dentistry (Milwaukee, WI) has a full-time, tenure track faculty position available in the Department of Basic Sciences effective, August 16, 1993. Duties include teaching biochemistry to dental and allied health professional students and participation in the other basic sciences courses. Candidates should have an active, fundable research program. Reguires Ph.D. in biochemistry plus a background in other Basic Sciences, teaching experience at both the undergraduate and professional level and research experience including postdoctoral work and publications. Interested individuals should submit curriculum vitae

> Ms. Susan Dalsasso Assistant to the Dean Marquette University School of Dentistry 604 N. 16 Street Milwaukee, WI 53233

Application Deadline: June 15,

Marquette University is an affirmative action, equal opportunity employer.

### Cephalon, Inc.

Widely recognized as a leader in neurological research, specializes in the discovery and development of breakthrough treatments for neuronal pathologies including ALS, Alzheimer's disease, stroke and narcolepsy.

### **Calcium Neurotoxicity**

In our Biochemistry Department, we seek a Senior Scientist Enzymologist to head efforts directed at the neurotoxicity of calcium overload. The focus is on the involvement of the calcium-activated protease calpain I in neurotoxic processes, and the development of therapeutically useful calpain I inhibitors. Responsibilities include the supervision of a research team within the department, as well as coordination with chemists, pharmacologists, and molecular biologists in other Departments.

Candidates must have a minimum of 5 years post-doctoral experience in enzymology, a significant publication record, and a history of supervision of Ph.D. and associate scientists. **Reply to job RGS.** 

### **Signal Transduction**

The Signal Transduction Group seeks highly motivated and talented Ph.D. Research Scientists to join multidisciplinary programs focused on molecular mechanisms of neuronal survival. The following positions require at least two years post-doctoral experience and the ability to interact in an exceptionally collaborative research environment.

### Enzymology/Biochemistry

To define modes of interaction of neurotrophic small molecules with defined molecular targets. Pivotal position requiring medicinal chemistry approaches. A prior background in tyrosine kinases and industrial experience preferred. **Reply to job CD1**.

### Molecular Neurobiology

To study molecular mechanisms of neuronal survival. Should have molecular biology expertise and a background in receptors and/or intracellular second messenger systems. Hands-on experience with primary neuronal cell culture is desired. **Reply to job CD2.** 

Cephalon, Inc. offers an exciting research environment, and is committed to your professional development, encouraging publications and attendance at scientific meetings. We have new extensive laboratory facilities, located in suburban Philadelphia and providing easy access to the Atlantic coast region, from New York City to Washington, D.C. The company provides excellent compensation and benefits, including a 401K plan and equity participation. For confidential consideration, please send your resume and indication of position of interest to:

### Cephalon, Inc.

Attn: Janet Marie Kuders 145 Brandywine Parkway West Chester, PA 19380-4245

An equal opportunity employer



## The quality of R&D depends on the quality of the resources.

### Drug Metabolism

There are a number of components to success in the pharmaceutical research process. The most important is our people. At Schering-Plough, we hire the best talent in our industry. Then, we provide them with the technical resources they need to do their best work: the most advanced instrumentation; the latest computerized systems; modern lab facilities. Finally, we spend over \$500 million annually on R&D, and have just completed a \$300 million R&D facility.

Commitment of this scope has helped us achieve \$4 billion in annual sales around the world.

### SENIOR PRINCIPAL SCIENTIST

You will have overall responsibility for the development of analytical methods in the Department of Drug Metabolism and Pharmacokinetics. These methods will include GLC, HPLC, GCMS and LC-MS, and are essential for both the support of new drug discovery as well as for all the programs leading to NDA and/or HRD submission. In addition, you will oversee early phase drug metabolism support for new drug discovery, and assume responsibility for clinical drug metabolism studies in therapeutic areas of CNS.

The successful candidate will offer a PhD along with a minimum of eight years of laboratory and managerial experience in drug metabolism or bioanalytical research. A thorough knowledge of modern analytical instrumentation, proven supervisory abilities and strong oral/written communication skills are essential; a good background and knowledge in drug metabolism research is important. Please refer to Position SPS on resume.

### ASSISTANT SCIENTIST

As an Assistant Scientist in this dynamic research area, you will analyze biological samples using immunoassay and/or other techniques, and participate in analytical method development and validation. You should have a BS in a relevant discipline with 2-5 years of experience (or an MS with 0 years of experience), a strong background in immunoassay techniques, and demonstrated knowledge of computer data reduction program. Please refer to Position AST on resume.

### SENIOR SCIENTISTS (2)

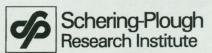
We are seeking two Senior Scientists to become integral members of this dynamic team of researchers, and to assume responsibility for a variety of *in-vitro* and *in-vitro* metabolism studies; analytical method development; metabolite isolation and identification; and supervision of a small staff of scientific personnel.

For one position, you should offer a PhD in Chemistry (Organic, Analytical, Medicinal), Pharmacy or a related discipline, along with at least two years of relevant experience. A strong research background in biopharmaceutics, with demonstrated knowledge of analytical methods development, instrumentation, in-vitor and in-vitor drug metabolism techniques, including metabolite isolation and identification, and the ability to apply this expertise to independent projects, are essential. Strong oral and written communication skills are important. Please refer to Position SES on resume.

For another position, you should offer a PhD in Biology, Pharmacology, Pharmacy or a related discipline, along with at least two years of relevant experience. A strong background in preclinical drug metabolism (absorption, distribution, metabolism, excretion studies) including study design and small animal surgery, and the ability to apply this expertise to independent projects, are essential. Excellent oral and written communication skills are important. Please refer to Position SSC on resume.

We offer salaries commensurate with your experience and education, a generous benefits package and the opportunity to join a prestigious organization with a demonstrated commitment to research. For confidential consideration, please send your resume, indicating the code for your position of interest and salary history/requirements, to: Mr. William E. Decker, Human Resources Manager-Research, Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ 07033-0539. We are an equal opportunity employer.

The science of success



### **POSITIONS OPEN**

### GENOME INFORMATICS

POSTDOCTORAL POSITION available immediately at the UNIVERSITY OF GEORGIA to develop NEURAL NETWORKS to assemble physical maps. Work involves both the development and testing of new physical mapping algorithms as well as their application to three genome projects involving a yeast, fungus, and region of a human chromosome. Send curriculum vitae and three references to: Dr. Jonathan Arnold, Genetics Department, University of Georgia, Athens, GA 30602. FAX: (706) 542-3910. An Equal Opportunity/ Affirmative Action Employer.

### POSTDOCTORAL POSITION MOLECULAR IMMUNOLOGY

A position is available for a postdoctoral fellow to study the biology of cytotoxic T lymphocytes with particular focus on the mechanisms of target cell lysis. Experience with molecular biology is desirable. Please send curriculum vitae and the names of three references to: Dr. Michael Grusby, Department of Cancer Biology, Harvard School of Public Health, 665 Huntington Avenue, Boston, MA 02115.

POSTDOCTORAL FELLOW. Molecular Evolution/Computational Biology. Position available September 1, 1993, in the Department of Biological Sciences, University of Nevada, Las Vegas, Las Vegas, Nevada, to perform computational analysis of RNA virus genomic sequences. Ph.D. in Virology, Molecular Biology or Computational Biology required. Send curriculum vitae and three letters of reference to: Dr. Marcella A. McClure, Department of Biological Sciences, University of Nevada, Las Vegas, Box 454004, Las Vegas, NV 89154–4004 or inquire 714-856-6178 or Email: mars@shiva.bio.uci.edu.

### ASSISTANT EXTENSION CITRUS MANAGEMENT SPECIALIST AND ASSISTANT PLANT PHYSIOLOGIST

The Department of Botany and Plant Sciences, University of California, Riverside, announces a position available October 1, 1993. The position is an 11-month, academic career-track, Assistant Extension Specialist (70%) and Assistant Plant Physiologist (30%) appointment in the Agricultural Experiment Station. Applied and basic research will emphasize soil/water/rhizosphere management in citriculture. The appointee is expected to provide leadership, coordination, and subject matter knowledge through statewide research and education activities for the benefit of the California citrus industry. A Ph.D. degree in plant physiology or a closely related discipline is required. The position requires a broad knowledge of plant science and expertise in one or more of the following areas: mineral nutrition/fertility management; irrigation management; root function and health; water and/or salinity stress; tree crops. Skills in oral, written, and visual communication are essential. While the primary responsibility is to citrus, the appointee will serve as a resource for improving the soil, water and nutrition management practices for other subtropical fruit tree crops of the coastal and desert areas of southern California. Send letter of application, curriculum vitae, statement of research interest, and transcripts, and arrange to have at least three confidential letters of reference sent to: Dr. R. T. Leonard, Chairman, Department of Botany and Plant Sciences, University of California, Riverside, CA 92521–0124; Telephone: 909-787-4413; FAX: 909-787-4437. The Application deadline is July 30, 1993. The University of California is an Affirmative Action/Equal Opportunity Employer.

### GENETIC EPIDEMIOLOGIST

For cancer genetics research program. Must be able to take a leadership role in supervision of a registry of high risk patients, and to facilitate multi-institutional collaboration. Candidates should have postdoctoral experience in both epidemiology and human genetics. The position carries an appointment at Cornell University Medical College. Working conditions and stipend are attractive. Send résumé to: Dr. D. G. Miller, Strang Cancer Prevention Center, 428 East 72nd Street, New York, NY 10021.

### **POSITIONS OPEN**



The Health Technology Assessment Program of ECRI, a nonprofit health research and publishing agency, seeks outstanding candidates for the following positions:

### M.D. Epidemiologist

A clinically competent physician with formal training in epidemiology and strong analytical skills to join a multidisciplinary effort to critique the clinical literature and assess new health technologies.

### Ph.D. Biostatistician

A doctoral-level statistician experienced in biomedical applications to assess the statistical validity and methodological designs of clinical studies and new health technologies.

### Ph.D. Research Analysts

Doctoral-level life scientists with voracious reading ability to organize clinical literature and write epidemiologically objective critiques of new health technologies.



These appointments offer unusual opportunities to impact significantly on the cost and quality of healthcare, here and abroad. Possibilities to participate in grant-funded research activities are also available. Please send curriculum vitae and reference list to: Human Resources, ECRI, 5200 Butler Pike, Plymouth Meeting, PA 19462.

### Ludwig Institute for Cancer Research San Diego Branch SENIOR STAFF SCIENTIST

The Ludwig Institute has recently established a branch in affiliation with the University of California—San Diego (UCSD) under the directorship of Dr. W. K. Cavenee. We seek an experienced and accomplished investigator in the field of transcriptional regulation of mammalian differentiation to establish a program in this area that will be synergistic with the other groups in the branch. Salaries, operating funds and relocation expenses will be provided commensurate with experience and academic appointments with the UCSD School of Medicine will be possible. Interested applicants should send curriculum vitae, a statement describing future research directions and the names of five professional references to: Dr. W. K. Cavenee, Ludwig Institute for Cancer Research, 9500 Gilman Drive, La Jolla, CA 92093—0660. The Ludwig Institute and UCSD are Equal Opportunity/Affirmative Action Employers.

### VISION SCIENTIST VISUAL PSYCHOPHYSICS AND COMPUTATIONAL VISION

The University of Missouri–St. Louis School of Optometry seeks a vision scientist to teach professional and graduate-level courses in visual psychophysics and to develop an active research program in the areas of visual psychophysics and computational vision. Applicants are expected to be willing to generate external support for their research. Rank/salary/appointment date negotiable. Letter, résumé, and three letters of reference by May 31, 1993, to: Dr. Jerry L. Christensen, Dean, School of Optometry, University of Missouri–St. Louis, 8001 Natural Bridge Road, St. Louis, MO 63121. Equal Opportunity/Affirmative Action Employer, compliant with the Americans with Disabilities Act of 1990.

A position is available in the Department of Comparative Medicine, Tufts University School of Veterinary Medicine, Grafton, Massachusetts, for a SCIENTIST/TECHNICIAN with experience in the operation and application of voltage clumps (Ussing chambers) to perform physiological studies of mucosal tissue. Please contact: Dr. Saul Tzipori; Telephone: (508) 839-7955

### **POSITIONS OPEN**

### TWO NEW PH.D.-LEVEL POSITIONS BIOCHEMIST AND MOLECULAR BIOLOGIST

The CTRC Institute for Drug Development (IDD) is a Texas research institution focused on accelerating the development of anticancer agents. IDD is the research arm of the Cancer Therapy and Research Center in San Antonio with research programs in molecular biology, pharmacology, animal model development, and medicinal chemistry. The CTRC was established in 1974 and currently has about 4000 patient visits per month. The staff often hold appointments at various institutions including participating hospitals and the University of Texas Health Science Center at San Antonio. We are currently seeking a Ph.D.-level biochemist and a Ph.D. molecular biologist who have strong commitments to cancer research and to designing novel therapies, or to improving current treatments. The ideal candidates will have approximately five years of successful experience and will be encouraged to build their own focused research program as well as to interact with and support colleagues in basic research, drug development, and clinical trials. Applicants may send their résumé and salary history to: Antia Busquests, Institute for Drug Development, 14960 Omicron, San Antonio, TX 78245. Equal Opportunity Employer. Smoke-free Environment.

The Biotechnology Patent Examining Group of the Patent and Trademark Office is currently recruiting scientists for positions as **PATENT EXAMINERS**. Individuals with advanced degrees and/or equivalent experience in the fields of immunology, molecular biology, gene therapy, transgenic animals, animal science, biochemistry, protein engineering and microbiology are urged to send a résumé or SF-171 to the following address:

Patent and Trademark Office Office of Personnel Box 171 Washington, DC 20231 K. Clark (180)

For further information, call (703) 308-1123. U.S. CITIZENSHIP IS REQUIRED FOR EMPLOYMENT.

CELLULAR IMMUNOLOGIST. Applicants invited for SENIOR SCIENTIST position directing laboratory aspects of a research, immunotherapy effort. Must work cooperatively with clinical scientists in progressive, innovative program. Opportunity exists for medical school appointment and graduate school teaching. Fully funded position and laboratory. Pay is commensurate with education and experience. Position will be filled in 1993. Opportunity to build a major division in applied immunotherapy research. Interested applicants submit curriculum vitae, representative publications, and 3 references to: Phillip Periman, M.D., the Don and Sybil Harrington Cancer Center, 1500 Wallace Boulevard, Amarillo, TX 79106. Equal Opportunity/Affirmative Action Employer.

### NOVOPHARM BIOTECH MOLECULAR BIOLOGY SCIENTISTS

We are the Research and Development arm of the largest Canadian generic pharmaceutical company, and because of our expansion we are actively recruiting postdoctoral-level scientists with experience in recombinant protein expression and molecular analysis of recombinant products. Interested candidates are asked to send their résumés including references to: Novopharm Biotech, Human Resources Department, 147 Hamelin Street, Winnipeg, Manitoba, R3T 3Z1. FAX: 204-452-7721. We are an Equal Opportunity Employer.

### PHARMACEUTICAL/BIOTECHNOLOGY PROFESSIONALS

Kuhn Med-Tech is a national executive search firm specializing in the placement of scientists and engineers in all areas of the medical industry including R&D, Drug Discovery, Process Development, Manufacturing, QA/QC, Clinical and Regulatory Affairs, and Sales/Marketing Management. Our clients hire at all levels from Research Associates through Senior Executives. For immediate consideration, please contact: Kuhn Med-Tech, 27128-B Paseo Espada #623, S.J. Capistrano, CA 92675; 714-496-3500 Telephone, 714-496-1716 FAX.

## IMMIJNO(SEN, INC.

ImmunoGen is a rapidly growing biotechnology company dedicated to the improved treatment of cancer and immune-mediated diseases. Using innovative technologies, the company is developing immunocon-jugates comprised of monoclonal antibodies linked to highly potent toxins and drugs. Three of ImmunoGen's products are in human clinical trials: The lead product has entered Phase III testing. We are seeking talented individuals to join us in exploring new approaches to the treatment of life-threatening diseases.

Research Scientist - Biochemistry We are seeking a talented Ph.D Biochemist who should enjoy the challenge of laboratory research that may lead to the development of novel cancer therapeutics. You will join a team of scientists who are focusing on the identification of target antigens and the discovery of specific targeting agents towards those antigens. The successful those antigens. The successful candidate should have a minimum of two years postdoctoral training, preferably in protein biochemistry and a proven record of creativity and accomplishment in research. ImmunoGen offers an excellent salary and benefits package including 100% paid Health and Dental Insurance and Tuition Assistance. Please send a detailed resume to: Jack Knox, Director of Human Resources, 60 Hamilton Street,

Cambridge, MA 02139. An Equal Opportunity Employer.

### **Project Director**

Searle, a global leader in the research and development of pharmaceuticals, is seeking a Project Director to ensure the successful development of key biotechnology derived product opportunities.

Primary responsibility for this high level position is to successfully and expediently manage the development process for protein products through all stages of planning, development, approval and registration. Additional responsibilities include timely and accurate project tracking and reporting to Searle management.

This position requires a professional with 5-10 years of pharmaceutical industry experience, specifically in biotechnology development or drug research project management. Candidates must possess a PhD, MD or equivalent.

A competitive salary and an excellent benefits program extend the rewards of this challenging position. Submit confidential resume to: Searle, Human Resources, Dept. PB1, 4901 Searle Parkway, Skokie, IL 60077. An equal opportunity employer. M/F/D/V.



Together, we can do a world of good



### Cardiovascular Disease

COR Therapeutics, Inc. is a publicly-held biopharmaceutical company located in the San Francisco Bay Area. We specialize in the discovery and development of novel therapeutics for the treatment of various aspects of atherosclerosis-induced cardio-vascular disease. COR is actively recruiting highly qualified scientists with proven track records to join our multidisciplinary research teams.

Receptor Biology - This position offers the opportunity to study the role of receptor tyrosine kinases in cardiovascular disease and to participate in an ongoing drug discovery program to identify and characterize growth factor receptor antagonists. A Ph.D. in an applicable field and a minimum of two years postdoctoral experience in tyrosine kinase/signal transduction research is required. Preference will be given to candidates with a strong background in protein purification and characterization. (Job Code R9-93)

**Organic/Medicinal Chemistry -** Medicinal Chemists are sought for our drug discovery efforts on receptor antagonists and protease inhibitors based on synthetic peptide leads. Successful candidates will have a Ph.D. in Chemistry and a minimum of two years applicable research experience working in a biotechnology or pharmaceutical company. (Job Code R5-93)

COR Therapeutics, Inc. offers competitive salaries, benefits and attractive equity positions to its employees combined with the challenge and opportunity to make significant research contributions. To apply, please send curriculum vitae to:

COR Therapeutics, Inc., Human Resources, 256 East Grand Avenue, South San Francisco, CA 94080. Please reference job code in correspondence. COR is an equal opportunity employer.



COR THERAPEUTICS, INC.

Affymax Research Institute is an innovative venture dedicated to the development of new technologies which will accelerate the process of drug discovery.

### **Head of Peptide Chemistry**

Our success in the creation and screening of large combinatorial chemical libraries has created the need for a Head of Medicinal Chemistry. We seek an exceptional Ph.D. level scientist, with 5-10 years of industrial experience, who will lead a group engaged in the application of peptide chemistry to the drug discovery process. Experience in managing research, an ability to lead others, to productively interact in a multidisciplinary environment, demonstrated expertise in peptide chemistry, peptide analysis and characterization, and possession of a broad knowledge of the relationship of peptides to medicinal chemistry are essential qualities. (S/EG1)

### **Peptide Chemists**

Two positions are immediately available for B.S./M.S. Peptide Chemists with 4+ years of industrial experience. These positions require broad experience in solid phase and solution phase synthesis, purification, and characterization of biologically active peptides. Additional useful experience includes: knowledge of methodologies for maximizing hindered couplings and general organic chemistry expertise applied to the development of peptide synthetic methods. The appropriate candidates must also possess a background in NMR, mass spectroscopy, HPLC, and other peptide related analytical tools. (S/EG2)

Affymax offers many of the benefits of a world class academic environment and the potential to develop new therapeutics. To apply send your resume with appropriate job code to: Affymax Research Institute, Human Resources Dept., 4001 Miranda Avenue, Palo Alto, CA 94304. EOE



### PHARMACEUTICAL RESEARCH

ZENECA Pharmaceuticals Group (formerly ICI Pharmaceuticals Group), dedicated to the challenge of discovering and developing important new therapeutic agents, has openings in the CNS and Pulmonary Pharmacology drug discovery research groups at our suburban Wilmington, Delaware location.

### **CNS Pharmacology**

**NEUROPHYSIOLOGIST** — We seek a Neurophysiologist to assist in the design and execution of pharmacological studies to identify drugs for central nervous system disorders. Proficiency in electrophysiological techniques (stereotaxic surgery, histology, extracellular single unit recording, iontophoreses, brain slice) desired. Knowledge of electronics and computer science preferred. BS/MS in Neurobiology with experience in Neurophysiology required.

### **Pulmonary Pharmacology**

POSTDOCTORAL FELLOW — A 2-year postdoctoral position is currently available. Candidate will be involved in ongoing research concerning effects and mechanisms of effects of C-fiber activation in the airways and understanding their role in airways hyperresponsiveness: a phenomena which underpins asthma. Studies will also involve modulation of C-fiber responses by inflammatory cells and their products, including cytokines. PhD or equivalent in a Biological Science is required. Experience with isolated tissue preparations and measurement of physiological and/or pharmacological responses would be an attribute.

We offer competitive compensation, comprehensive flexible benefits, a unique investment plan, and the opportunity to join a team of scientists from a broad range of disciplines in an industrial pharmaceutical research environment.

Interested candidates should submit c.v. to: Melanie Lewis, ZENECA Pharmaceuticals Group, 1800 Concord Pike, Wilmington, DE 19897.

### **ZENECA**Pharmaceuticals Group

ZENECA Pharmaceuticals/Stuart Pharmaceuticals
Business Units of ZENECA Inc.

An Equal Opportunity Employer M/F.

### DIRECTOR EXPERIMENTAL ONCOLOGY

Blomeasure, a research-driven 17-year-old corporation with a research focus on therapeutic anti-growth factors, is seeking a dynamic and highly motivated Experimental Oncologist capable of designing, implementing and validating "in vivo" rodent tumor models of direct clinical relevance.

The potential candidate should have a Ph.D. in biological sciences and at least three years' experience in tumor biology and "in vivo" tumor models. A proven research record in tumor-inhibiting factors, apoptosis inducers, suppressor genes, etc. as applied to "in vivo" models of tumor growth is essential. Excellent communication skills and ability to implement ideas and to interact with laboratory staff and physicians in charge of clinical studies are also required.

Biomeasure offers a stimulating research environment, excellent compensation and benefits package. Located near Boston in a new building, we provide state-of-the art facilities and the opportunity to collaborate with leading research institutions

Send resume, salary requirements and a statement of research interests in confidence to: Human Resources.

Biomeasure Incorporated 27 Maple Street Milford, MA 01757

An affirmative action/ equal opportunity employer: M/F/H/V.

### SCIENTIST/SR. SCIENTIST

An opportunity exists for an experienced immunologist to lead a manufacturing group in the purification of naturally occurring cytokines. The position requires an MS/PhD degree with 2 vrs experience in human monocyte culture, cytokine immunoassays and protein purification. The candidates must have good communication skills, and the ability to work in a team environment. Chesapeake Biological Laboratories provides contract filling and development services to the biotechnology and pharmaceutical industries. Send resume to:

> CBL, Inc. ATTN: CS-3 6000 Metro Dr. Baltimore, MD 21215

An Equal Opportunity Employer

### FACULTY POSITION UNIVERSITY OF MASSACHUSETTS MEDICAL CENTER

Immediate opening for a senior tenure or junior tenure track faculty position in an interdepartmental Molecular Medicine Program. Rank will be commensurate with ability and experience. The laboratories for the Program are housed in a modern building containing 80,000 square feet of research space. A wide variety of core facilities as well as 300 and 500 Mhz NMR spectrometers, Raxis II x-ray data collection, and an array of computational and molecular graphics facilities are available. The position will be highly competitive with regard to start-up funds, laboratory space, and salary.

The Program seeks an individual of outstanding research potential who is employing chemical approaches to study important biological problems. Areas of specific interest include, but not limited to, bioorganic chemistry, protein or nucleic acid chemistry, development of novel chemical probes, drug design and action, medicinal chemistry, drugmacromolecule interactions, protein-ligand interaction and marcomolecule structure. Applicants should send a curriculum vitae, statement of research, and names of three references to: Dr. Roger J. Davis, Search Committee Chairman, Program in Molecular Medicine, University of Massachusetts Medical School, 373 Plantation Street, Worcester, MA 01605.

An Equal Opportunity/Affirmative Action Employer

### The Amgen Institute (Toronto)

### **Senior Staff Scientists**

The Amgen Institute invites qualified professionals to apply for positions of Senior Staff Scientist. You will be responsibile for independent investigations at our new state-of-the-art research facilities which are presently under construction within the Toronto University-Hospital research centre.

Candidates must have a qualified doctoral or medical degree, with at least two years of postdoctoral training and a demonstrated ability to develop strong research programmes. Applicants interested in research in molecular and cellular biology of lymphocyte regulation, immune recognition, neurobiology and related areas will be given priority. Successful candidates are eligible to apply for cross appointments at the Ontario Cancer Institute and appropriate academic departments at the University of Toronto.

The Canadian Immigration Department stipulates that Canadian residents will be considered in the first instance. However, all qualified professionals are urged to apply. Please send a current curriculum vitae, brief statement of future research interests and three letters of recommendation to: Amgen Institute, Attn: Professor T.W. Mak, Job Code OA-SC-DC-001, 500 Sherbourne Street, Toronto, Ontario, Canada M4X 1K9. We are an Equal Opportunity Employer.



### ASSOCIATE VICE PRESIDENT for RESEARCH LOYOLA UNIVERSITY of CHICAGO

Loyola University of Chicago invites applications or nominations for the position of Associate Vice President for Research. The Associate Vice President for Research will also serve as the Director of University Research Services. We seek candidates with an earned doctorate (M.D., Ph.D., etc.), outstanding academic credentials commensurate with a senior faculty member in a university department, previous experience in research administration, and a strong commitment to facilitating research and its development in a university setting

The Associate Vice President for Research will be responsible for 1) the development, implementation, and supervision of policies governing the conduct of research and research programs throughout the University, 2) the coordination and management of research services offices and activities provided at Loyola's Lake Shore, Water Tower, and Medical Center Campuses, 3) serving as the representative and advocate for the research community by providing advice and consultation to the University administration, Deans, Academic Chairs, and Faculty that will enhance the University research mission, 4) representing the University's research mission, 4) representing the University research community in matters pertinent to local, state, and federal research related issues, 5) working with Faculty and the University Development office to identify and facilitate opportunities for research funding, 6) overseeing the University Research Committee, safety committees, and all technology transfer activities. The Associate Vice President for Research reports jointly to the Senior Vice President and Dean of Faculties and to the Provoet of the Medical Center.

Loyola University of Chicago, a private Jesuit institution, is composed of the College of Arts & Sciences, Mundelein College, and the Schools of Business, Education, Law, Medicine, Nursing, Social Work, and the Graduate School.

Please address all questions and nominations/applications with a current Curriculum Vitae by JULY 1, 1993 to: Dr. John X. Thomas, Jr.; Chair, Associate Vice President for Research Search Committee; Loyola University Medical Center; Room 6742; 2166 South First Avenue; Maywood, IL 60153; TX: 708-216-5840; FAX: 708-216-9433.

LOYOLA UNIVERSITY of CHICAGO is an Equal Opportunity/Affirmative Action Educator and Employer

### We're Leading The Way... To A Better Future

Searle is a leading pharmaceutical company committed to developing new frontiers in research. As such, we are seeking a Pulmonary Pharmacologist/Physiologist who shares our vision for excellence in research.

With the goal of identifying potential new drugs for treating airway diseases, the selected candidate will design and conduct research in the area of pulmonary pharmacology with emphasis on animal models of asthma. Key to this position is experience in measuring airway mechanics in animals

In addition to extensive knowledge of pulmonary pharmacology or physiology, the qualified professional will possess a B.S. or M.S. in pharmacology, physiology, immunology or animal sciences with 5-7 years experience in a pulmonary pharmacology research laboratory. Candidates with a Ph.D. are preferred.

In addition to the rewards of an innovative, challenging environment, Searle offers you an outstanding salary/benefits package. Please send your resume to: Searle, Human Resources, Dept. MB2, 4901 Searle Parkway, Skokie, IL 60077. EOE M/F/V/D.





### **Accell**® Gene Therapy

Our proprietary *Accell* gene delivery systems are being applied toward such diverse biomedical applications as genetic vaccines for infectious disease, cancer immunotherapy and cellular therapy for genetic disease. If you're looking for an opportunity to conduct cutting edge research in human genetics while developing therapeutics that will improve the quality of life on a global scale, Agracetus may fit your needs.

### Research Scientist

We are seeking an independent investigator with a specialty in immunology and demonstrated experience in gene therapy, mammalian physiology, biochemical genetics or a related field. Applicants must hold a Ph.D. or M.D. degree, and productive postdoctoral research will be a significant competitive advantage. The successful candidate will participate in collaborative programs with leading academic laboratories that are applying *Accell* gene delivery technology to the development of genetic therapeutics.

### Postdoctoral Fellowships

We are seeking postdoctoral scientists to participate in ongoing research programs applying *Accell* gene delivery technology toward tumor gene therapy and genetic immunization against infectious disease. The anticipated candidates will have broad knowledge of cell and molecular biology, and should additionally have specialized training in immunological techniques, molecular oncology or related fields. Previous experience with animal models of human disease will be a valuable asset.

Agracetus has a state-of-the-art facility located near the campus of the University of Wisconsin-Madison. We offer an outstanding salary and benefits package. Please send your resume to: Vice President of Research, Agracetus, Inc., 8520 University Green, Middleton, WI 53562. An equal opportunity employer.





### **LECTURESHIP IN MICROBIOLOGY**

Applications are invited for the above post in the Department of Microbiology at Trinity College, Dublin, tenable from 1st October, 1993. Applicants should have research experience in bacterial pathogenicity. The successful candidate will be expected to develop an independent area of research, to contribute to undergraduate and postgraduate teaching and to undertake administrative responsibilities.

Salary Scale: IR£ 13,402-IR£ 32,608 per annum.

Appointments will be made within the salary range IR£ 13,402–IR£ 18,773 per annum at a point to accord with qualifications and experience to date.

Application forms and further particulars relating to this appointment may be obtained from:

Establishment Officer
Staff Office
Trinity College
DUBLIN

TEL: 7021678/FAX: 6772169

The closing date for receipt of completed applications will be *Friday, 11th June, 1993.* 

TRINITY COLLEGE IS AN EQUAL OPPORTUNITIES EMPLOYER

### **ANNOUNCEMENTS**

### Ph.D.'s IN BIOTECHNOLOGY

Positions available for Ph.D.-level candidates in: Immunology, Cell Biology, Molecular Biology, Protein Chemistry, Formulations, Assay development. Call, FAX or Send curriculum vitae to:

SCIENTIFIC RESOURCES
1244 Boylston Street
Chestnut Hill, MA 02167
Telephone: 617-732-8789;
FAX: 617-734-5979
Executive Recruitment Consultants

Third International Workshop on the Identification of Transcribed Sequences in the Human Genome. October 2–4, 1993, New Orleans, Louisiana. Send Abstracts by July 1, 1993, to:

Dr. Ute Hochgeschwender Unit on Genomics, NIMH 10/4N320 9000 Rockville Pike Bethesda, MD 20892

Additional information: Dr. K. Gardiner, Telephone: (303) 333-4515.

PRE-PROPOSALS—Deadline: 1 August 1993. International Foundation for Ethical Research (IFER) has grants available for research into alternatives to the use of live animals in research, testing and teaching. Projects must take into account the three R's: Refinement, Reduction, and Replacement plus a fourth R: Responsibility. For information and format write: IFER, 53 West Jackson Boulevard, Chicago, IL 60604, or call: 312-427-6025.

AMERICAN INSTITUTE
FOR CANCER RESEARCH
Conference on
"DIET AND BREAST CANCER"
September 2-3, 1993
L'Enfant Plaza Hotel, Washington, D.C.

For more information call the Research Department at AICR: 1-800-843-8114 or FAX: 202-328-7226



### ENTREPRENEURIAL SCIENTIFIC/ EMERGING COMPANIES

There are a number of excellent reasons why the Colorado Bio/Medical Venture Center is the place to launch your new bio/medical company:

- We provide you with a research campus, labs, university and business ties, regulatory assistance, fundraising help and administrative support.
- Locating in Colorado means a superb quality of life, low costs, easy national and international access, and a high quality work force. Plus, you'll be part of a growing community of world-recognized research institutions such as the University of Colorado, Colorado State University and the National Jewish Center for Immunology and Respiratory Medicine, and more than 200 bio/med companies, including high profile Synergen, Ribozyme, Cobe Laboratories and Spectranetics.
- Investigate the possibilities for you and your company today. Call (303) 237-3998, FAX: (303) 237-4010 or write us at: CBVC, 1610 Pierce Street, Lakewood, CO 80214.



### ASSOCIATE DIRECTOR

Genetic Design, Inc., the country's leading human identification laboratory, currently has a position available in the department of parentage testing at its facility in Greensboro, North Carolina. The individual we seek will be principally involved in evaluation of genetic data and will travel within the United States to provide testimony in the courtroom.

Requirements for the position include a Ph.D. or D.Sc. in one of the biological sciences. Two years of experience in a licensed laboratory, in a clinical setting or in human specimen testing is preferred, but not required. Experience in classical genetics, HLA serology and/ or DNA probe technology is desirable.

We offer an affordable life-style with an array of recreational, cultural, and educational opportunities in Greensboro and the surrounding area. Our salaries and benefits are competitive and include relocation assistance.

Applicants should send or fax curriculum vitae to:

> HUMAN RESOURCES DEPARTMENT GENETIC DESIGN, INC.

7017 Albert Pick Road Greensboro, NC 27409 FAX: (919) 665-3966

### **Staff Scientists**

### Peptidomimetics Medicinal Chemistry

Affymax Research Institute is an innovative venture dedicated to the development of new technology which will accelerate the process of drug discovery.

Our success in the creation and screening of large combinatorial chemical libraries has created several openings in our Department of Medicinal Chemistry for Ph.D. scientists with demonstrated achievement in Peptidomimetic Chemistry. We seek experienced medicinal chemists with strong synthetic organic chemical backgrounds, including 2+ years experience in the industry, who are enthusiastic about pursuing drug discovery in a multidisciplinary environment.

Affymax offers many of the benefits of a world class academic environment and the potential to develop new therapeutics. Please refer to Job Code S/EG3 and send your resume to: Affymax Research Institute, 4001 Miranda Avenue, Palo Alto, CA 94304. Equal Opportunity Employer.







Disorders And Infectious Diseases

### **CELLULAR IMMUNOLOGISTS**

**UNITED BIOMEDICAL. INC. (UBI)**, is a dynamic and growing biopharmaceutical company devoted to the development and manufacture of diagnostic products, vaccines and therapeutics to combat immune disorders and infectious diseases.

Currently openings are available for Scientists with a strong background in cellular immunology and immunogenetics. Experience in murine and human CTL assays, T-cell proliferation assays, T-cell cloning, and flow cytometry essential. Successful candidates will be responsible for the design and development of vaccines to protect humans from assorted pathogens including HIV; generation of long-term CMI to vaccine candidates in vivo; identification of immunoreactive sites and investigation of T-B cell interactions.

Located on Long Island, in close proximity to Cold Spring Harbor Laboratory and the State University of New York at Stony Brook, yet only 45 miles from Manhattan, UBI offers an active and stimulating scientific environment. An excellent benefits package and competitive salary accompany these positions. Please send CV along with salary requirements to:



Manager, Human Resources-S UNITED BIOMEDICAL, INC.

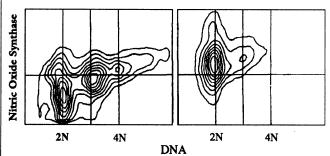
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### **MEETINGS**

SECOND BERKSHIRE NEUROSCIENCE SYMPOSIUM: Mechanisms of Programmed Cell Death and their Implications for the Brain. Jiminy Peak Conference Court, Hancock, Massachusetts, June Peak Conference Court, Hancock, Massachusetts, June 21–23, 1993. Speakers include M. Chalfie, T. Cunningham, H.R. Horvitz, M. Johnston, N. Kowall, R. McBurney, W. Nicklas, R. Oppenheim, J. Rothstein, L. Schwartz, H. Steller, and others. Contact: Nan Donnelly or R. C. Henneberry, Conte Institute for Environmental Health, Telephone: (413) 449-6100, PAN. (413) 443-1740. FAX: (413) 443-1740.

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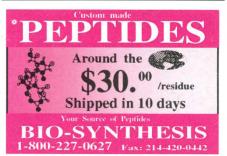
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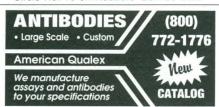
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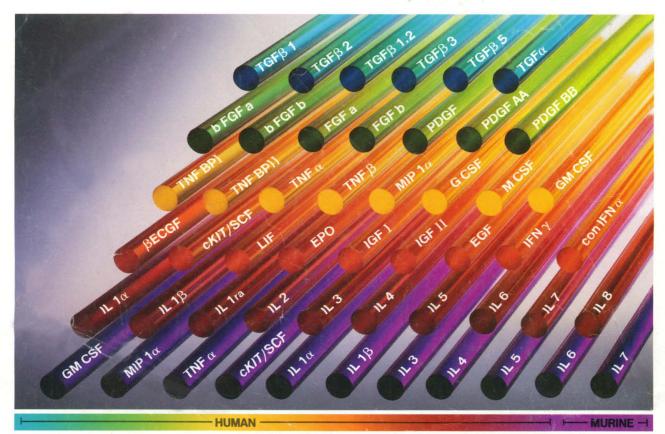
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