# Products & Materials

# Automated Scanning System

The SciScan 5000 System automates DNA sequence reading and many other laboratory data analysis tasks. The system includes a high-resolution scanner that digitally records an image of any laboratory sample, with a scanning bed that accommodates samples up to 14 inches wide, of any length, and up to 0.5 inch thick. The system quickly reads DNA sequencing autoradio-



grams without user intervention. Derived sequence data are displayed linked with the gel images and can be edited on screen. The sequence can then be printed or stored on the computer disk for further analysis. United States Biochemical. Circle 545.

# **Monoclonal** Antibodies

ACT-T-SET Granzyme A is a monoclonal antibody (MAb) that recognizes human granzyme A in frozen tissue sections and fixed cell preparations. It can also be used for immunoprecipitation procedures. Granzyme A is found in the intracellular cytoplasmic granules of cytotoxic T lymphocytes. T Cell Sciences. Circle 557.

Indenti-T Pan-TCR $\alpha\beta$  is a MAb that identifies a common epitope of the human  $\alpha\beta$  T cell antigen receptor. It can be used in flow cytometry analysis of live cells, immunohistology protocols, and immunoprecipitation procedures. T Cell Sciences. Circle 546.

# **Biology Spell Checker**

BioWords, a spell checker for use on Macintosh computers, contains more than 31,000 biology-related words. Fields covered include agronomy, anatomy, biochemistry, biotechnology, botany, enzymology, genetics, horticulture, immunology, medicine, microbiology, organic chemistry, pesticide science, pharmacology, plant science, soil science, taxonomy, toxicology, virology, weed science, and zoology. The spell checker works in conjunction with Microsoft Word 4.0 and requires a hard disk. Scientific Software. Circle 547.

# Image Intensifier

GENIISYS is a screw-on, optically coupled second-generation image intensifier for use in low light level imaging. It is designed for use with both charge-coupled devices and tube-type cameras. The optical coupling interfaces with either 1-inch or 2/3 cameras. The GENIISYS intensifier, high-voltage power supply, and relay optics are contained in a compact cylinder, weighing less than 3 pounds. A separate unit includes microprocessor access to control functions through front panel controls or an RS-232 link. GENIISYS features automatic control of intensifier gain and shuttering, which provides a wide range of operation. For quantitative analysis, GENIISYS can be operated in variable fixed gain mode, which includes two separate gain presettings. Dage-MTI. Circle 548.

# Non-Acrylamide Gel

HydroLink D600 is a non-acrylamide monomer combined with an innovative cross-linker for separating oligonucleotides and low molecular weight double-stranded DNA (dsDNA). HydroLink D600 is a direct substitute for acrylamide-bis stock solutions. D600 yields up to 1-base resolution of nucleotides down to 10 bases and up to 4-bp resolution of dsDNA fragments for oligonucleotide separation in the 10 to 300bp range. J. T. Baker. Circle 549.

# FcBlock Reduces Background Staining

FcBlock is a monoclonal antibody-based product that strongly and specifically binds to murine Fc $\gamma$  receptors expressed by mouse lymphocytes and macrophages. FcBlock prevents antibodies from binding to cells via their Fc portions and can significantly reduce background staining. The user simply incubates mouse cells with FcBlock for 3 minutes and then stains as usual with fluorochrome-conjugated or biotin-labeled antibodies. PharMingen. Circle 550.

# **RNA** Purification Kit

The RNaid Kit can purify RNA from gels in 20 minutes. The user can select RNA species according to size and clean up RNA polymerase chain reaction products. This gel extraction kit provides rapid separation of RNA from enzymes and unincorporated label and removes polymerases, transcriptases, restriction enzymes, and ribozymes. It can also desalt and remove other contaminants such as enzymes and proteins from RNA samples and rapidly isolate total RNA from guanidinium cell lysates. Midwest Scientific. Circle 551.

# Literature

BIOSIS Connection, an online system, includes four new databases: Biology Digest Online, Life Sciences from NTIS (National Technical Information Service), Multiple Sclerosis Research Literature, and Forthcoming Books in the Life Sciences. BIOSIS. Circle 552.

Thermal Analysis Supplies Catalog provides 52 pages of photographs, illustrations, and technical information to assist users in selecting the correct parts for their operations. Perkin-Elmer. Circle 553.

Vertical Slab is a brochure that describes a cell design that allows gels to run up to three times faster than conventional systems and that ensures even heat distribution over the entire gel surface. Buchler Instruments. Circle 554.

Sample Preparation Products is a comprehensive catalog with an up-to-date applications bibliography for users of solid-phase extraction technology. Varian Associates. Circle 555.

Product Guide 1991 offers the fiber-optic component user a single, comprehensive source of information on Lasertron products including detailed specifications, application notes, and manufacturing and reliability information. Lasertron. Circle 556.

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

# Personnel Placement

# LINE CLASSIFIED ADVERTISEMENTS

**DEADLINES:** Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* publishes each Friday, except the last Friday of the year. Advertisements must be submitted in writing.

HOW TO SUBMIT A CLASSIFIED AD: Prepare double-spaced typewritten ad copy on a separate sheet. Do not include any abbreviations. *Science* guidelines. Deadline for applications stated in ad must be at least 2 weeks after date of publication. Also include a cover sheet which gives name and phone number of contact person, desired date of publication, and billing information, including any special invoicing requests. Mail or FAX materials to:

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

CLASSIFICATIONS: Science publishes line classified ads under the following headings: Positions Open, Employment Agencies, Situations Wanted, Courses and Training, Meetings, Announcements, and Marketplace. Advertisers should specify classification desired.

How to calculate RATE FOR CLASSIFIED AD: Ads are \$41 per line with a \$410 minimum. One line equals 52 characters and spaces; centered headings equal 32 characters and spaces.

To ESTIMATE ad cost, count total number of 52 character lines and multiply by \$41 to find approximate cost of ad per week. Each line of centered heading counts as one line. Also count one line for white space between headline and first line of text; all partial lines are also counted as full lines (including all centered reply information).

Remember, this is a rough estimate only. Allow for variation between estimated typewritten lines and ads when actually typeset for magazine. Therefore, purchase orders must allow additional funds for flexibility and/or adjustment. *Science* cannot provide proofs of typeset ads.

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

CREDIT CARDS: Science accepts MasterCard and VISA. Both personal and corporate cards may be used. Prepayment does not apply to credit cards.

BOXES AND LOGOS: Any line classified ad can be boxed and/or published with logo to increase its visibility on page. Since the box takes up additional space, one line now equals 48 characters and spaces: two additional lines will be added to allow for top and bottom rules. Logos are billed according to the number of lines needed to fit logo in space.

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

# DISPLAY PERSONNEL ADVERTISEMENTS

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

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

**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, national origin, handicap, or sexual preference. *Science* reserves the right, at its discretion, to decline to publish advertisements submitted to it and to decline classifications which it considers misleading. ASSISTANT PROFESSOR ORAL BIOLOGY. Applications are invited for an assistant professor position in the areas of immunology, cellular, or molecular biology. Candidates are expected to carry out independent research programs relevant to oral biology. Limited participation in pre-postdoctoral education is expected. Submit curriculum vitae and three letters of reference to: Dr. Frank Oppenheim, Chairman, Department of Oral Biology and Periodontology, Boston University Medical Center, BUSGD, Room 217B, Boston, MA 02118. An Equal Opportunity Employer.

# POPULATION GENETICIST COLORADO STATE UNIVERSITY

The Department of Biology invites applications for a 9-month, tenure-track position in population genetics at the ASSISTANT PROFESSOR level, available January or August 1992. Primary emphasis is on the genetic structure and dynamics of natural populations of plants or animals in the context of ecological and evolutionary questions. Applicants must possess a Ph.D. in a biolog-ical science and provide evidence of potential for excellence in teaching and research; postdoctoral experience is desirable. We seek an individual who is thoroughly conversant with modern theory in population genetics, ecology, and evolutionary biology and who is actively involved in testing such theory using molecular tech-niques. The successful candidate will be expected to develop a vigorous, externally funded research program and to interact with the ecologists and molecular genet-icists in the department and university. Teaching responsibilities will include an advanced course in the genetics of natural populations, an undergraduate course in evo-lution, and participation in the introductory biology program. Applicants should submit curriculum vitae. and describing research and teaching goals, and should arrange to have three letters of recommendation sent by September 1991 to: Dr. John A. Wiens, Population Genetics Search Committee, Department of Biology, Colorado State University, Fort Collins, CO 80523. CSU is an Affirmative Action/Equal Opportunity Employer. EO Office: 314 Student Services Building.

The Department of Microbiology and Immunology at The Pennsylvania State University College of Medicine invites applications for a tenure-track position at the **ASSOCIATE PROFESSOR** level available in the summer of 1991. Individuals with strong training in molecular virology whose research interests are focused on the molecular aspects of retrovirus replication and/or assembly are especially encouraged to apply. Candidates should possess a Ph.D. or M.D. and show evidence of outstanding research accomplishments and demonstrated ability to generate research funding. The applicants are expected to be decicated to excellence in teaching medical and graduate students. Send letters of application, curriculum vitae, and the names and addresses of three references by 15 July 1991 to: Search Committee, Department of Microbiology and Immunology, The Pennsylvania State University College of Medicine, P.O. Box 850, Department 22, Hershey, PA 17033. The Pennsylvania State University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

### UNIVERSITY OF MIAMI SCHOOL OF MEDICINE (UMSM) DEPARTMENT OF NEUROLOGY NEUROIMMUNOLOGIST

Applications are invited from M.D. or Ph.D. neuroimmunologists at the ASSOCIATE OR FULL PRO-FESSOR level to direct the neuroimmunology section of the Department of Neurology. Tenure decisions will be based upon candidate's qualifications. A VA/MC position may be available. Applicants should have established laboratory research programs and clinical interests. M.D.'s must be Board-eligible/certified and eligible for a Florida Medical License. This is an exciting growth position in a department with extensive existing neuroscience research programs, including MS, AIDS, and the neuromuscular diseases. Collaborative opportunities in UMSM are excellent, with extensive research groups in immunology, virology, and molecular biology.

Immunology, virology, and molecular biology. Applications with curriculum vitae, names of three references, and copies of five recent publications to: Walter G. Bradley, D.M., F.R.C.P., Professor and Chairman, University of Miami School of Medicine, Department of Neurology (D4-5), P.O. Box 016960, Miami, FL 33101. The University of Miami is an Equal Opportunity/Affirmative Action Employer.

# **POSITIONS OPEN**

BOTANY, TEMPORARY ASSISTANT PRO-FESSOR. Teaching responsibilities include plant general biology, anatomy, physiology and systematics, and a nonmajors course in general biology. Ph.D. in appropriate field required. Salary commensurate with qualifications and experience. Position available 20 August 1991. Send letter of application, curriculum vitae, official transcripts, and three letters of recommendation to: Botany Search Committee, Station #33, Eastern New Mexico University, Portales, NM 88130. Screening will begin 1 July 1991 and continue until the position is filled. Afirmative Action/Equal Opportunity Employer.

**RESEARCH ASSISTANT PROFESSOR.** Position available in the Division of Cardiothoracic Surgery. Duties include coordinating some of the group research efforts of the division, as well as developing an independent extramurally funded research program in an area related to cardiothoracic surgery. Ph.D. or equivalent in physiology or a related area with an emphasis on cardiac physiology is a requirement, with other advanced degrees such as M.D. or D.V.M. also desirable. Send curriculum vitae to: Jack J. Curtis, M.D., Division of Cardiothoracia School of Medicine, One Hospital Drive, Columbia, School of Medicine, One Hospital Drive, Columbia, MO 65212. Application deadline is: 15 July 1991. The University of Missouri-Columbia is an Equal Opportunity and Afirmative Action Institution.

The Animal Disease Research and Diagnostic Laboratory and Department of Veterinary Science, College of Agriculture and Biological Sciences, South Dakota State University (SDSU), invites applications for a tenuretrack position at the ASSISTANT OR ASSOCIATE **PROFESSOR** level, available immediately. The laboratory and department are nationally recognized as leaders in the diagnosis, pathogenesis, and mechanisms of diseases in domestic livestock. Requirements are a Ph.D. or D.V.M./Ph.D. in virology and/or immunology with research and diagnostic experience in bovine infectious diseases. Individuals with postdoctoral experience will be given preference. The individual will supervise personnel in the diagnostic serology section of the Animal Disease Research and Diagnostic Laboratory; develop innovative assays for the serological diagnosis of infectious diseases in food animals; develop a competitive, externally funded research program in bovine viral diseases; and act as a consultant to the diagnostic bovine virology section. Salary commensurate with qualifications and experience. Applicants are requested to send curriculum vitae, a brief statement of current research interests, transcripts, and names and addresses of three references by 25 July 1991 to: Dr. David A. Benfield, Virology Search Committee, Animal Disease Research and Diagnostic Laboratory, South Dakota State University, P.O. Box 2175, Brookings, SD 57007. SDSU is an Equal Opportunity/Affirmative Action Employer.

# FULL PROFESSORSHIP IN ANALYTICAL AND ENVIRONMENTAL CHEMISTRY UNIVERSITY OF GENEVA FACULTY OF SCIENCES

A new full-time position has been opened for a SCIENTIST capable of teaching analytical and environmental chemistry, as well as directing research and doctoral theses in the field of chemistry/analytical chemistry of natural aquatic systems. It is expected that the candidate will have obtained a Ph.D. or equivalent degree. The purposed starting date is 1 January 1992. Applications should be sent by 13 September 1991 to: Secrétariat de la Faculté des Sciences, Université de Genève, 30, quai Ernest-Ansermet, CH-1211 Geneva 4, Switzerland, from whom additional information can also be obtained.

The University of California, Los Angeles (UCLA), School of Medicine is recruinng outstanding scientists for TENURE-TRACK POSITIONS in the areas of genetics, neurobiology, immunology, metabolism, or structure. Space is available in the new McDonald Medical Research Laboratory building as well as in various departments. Eligibility includes new assistant professors as well as senior investigators.

Candidates are requested to submit curriculum vitae and letter of interest to: Chairman, Search Committee (2), UCLA School of Medicine, Office of the Dean, Room 12-138 CHS, Los Angeles, CA 90024–1722.

UCLA is an Equal Opportunity/Affirmative Action Employer.

PROTEIN BIOCHEMIST/MOLECULAR BI-OLOGIST with expertise in the area of protein biochemistry is being sought for a tenure-track position at the ASSISTANT PROFESSOR level in the Division of Neuropathology of The Department of Pathology at The Ohio State University (OSU). Candidates will be expected to develop an independent research program, and interact with other related academic activities, but will have only minor teaching and administrative responsibilities. Research experience related to neuroscience and/or oncology are desirable. Applicants should send curriculum vitae and statement of career goals to: Allan J. Yates M.D., Ph.D., Professor and Head, Division of Neuropathology, Room 111 Upham Hall, 473 West 12th Avenue, Columbus, OH 43210. OSU, an Equal Opportunity Employer, encourages minorities and women to apply.

### UNIVERSITY OF MIAMI SCHOOL OF MEDICINE (UMSM) DEPARTMENT OF NEUROLOGY MOLECULAR NEUROBIOLOGIST

Applications are invited from M.D. or Ph.D. molecular biologists and molecular geneticists at the ASSIST-ANT QR'ASSOCIATE PROFESSOR level, interested in neurological and/or neuromuscular diseases. Tenure decisions will be based upon candidate's qualifications. M.D.'s must be Board-eligible/certified and eligible for a Florida Medical License. A VAMC appointment is available if desired. Applicants should have an established research program using molecular genetics techniques to investigate neurological function and disease. This is an exciting growth position in a department with extensive existing neuroscience research programs. Collaborative opportunities in UMSM are excellent, with several large molecular biology and molecular genetics groups.

Applications with curriculum vitae, names of three references, and copies of five recent publications to: Walter G. Bradley, D.M., F.R.C.P., Professor and Chairman, University of Miami School of Medicine, Department of Neurology (D4-5), P.O. Box 016960, Miami, FL 33101. The University of Miami is an Equal Opportunity/Affirmative Action Employer.

# SCIENTIFIC MANAGER

Unique challenge for a motivated scientific manager in a growing biotechnology company. Opportunity to combine managerial and technical expertise in development of new bioluminescent/chemiluminescent assay systems. Candidate must have capability to implement GLP, GMP, and manage production of Class II diagnostic device. Background in tumor or cell biology and commercial laboratory and research experience required. Send résumé to: Dr. Peter Andreotti, MCL Technologies, 5601 N.E. 14 Avenue, Ft. Lauderdale, FL 33334.

# ASSISTANT DEAN

Northwestern University invites application for the position of assistant dean for physical environment in the College of Arts and Sciences. This position reports to the dean of the college. Facility and equipment responsibilities include oversight on space management, coordination of the design and implementation of renovation projects, maintenance of 1 million gross square feet in more than 30 buildings; furnishings, copiers, computers, and other equipment; oversight of security, safety, and emergency activities for the college; direct responsibility for a \$400,000 budget. Other responsibilities include review and recommendation on research staff appointments, research grant proposals, liaison with the university research grant proposals, liaison with the university condication.

major college events such as the senior convocation. Qualifications: facilities experience, preferably in a laboratory science; college or university experience, preferably with a Ph.D.; excellent oral, written, and interpersonal skills.

Please submit a letter of application, including a résumé and the names, addresses, and telephone numbers of three references, by 1 July 1991 to: Search Committee, Office of the Dean, College of Arts and Sciences, Northwestern University, 1918 Sheridan Road, Evanston, IL 60208. Applications from women and minorities are encouraged. Northwestern University is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon eligibility to work in the United States.

# 14 JUNE 1991



Medical Coller

The Aga Khan University is now in its eighth year of operation. Its affiliated Aga Khan University Hospital has well equipped teaching and service laboratories and will have 654 beds when fully operational. The University and the University Hospital are autonomous, privately funded and philanthropic institutions committed to the provision of effective health, professional education and health services research relevant to Pakistan and the region. Our undergraduate curriculum in medicine stresses integrated training of the basic and clinical sciences with a hands-on, problem solving approach to patient care and parallel extensive training in Community Health Sciences.

Applications are invited from highly committed professionals for the key position of:

# **PROFESSOR & CHAIRPERSON DEPARTMENT OF COMMUNITY HEALTH SCIENCES**

The individual filling this senior position will be responsible to provide dynamic academic leadership in the administration of the department, stimulation of appropriate research programmes and will also be responsible for resource development including grant & contract visiting to raise funds from external agencies.

Candidates must have suitable postgraduate qualifications. Achievements inresearch and experience in teaching and administration at senior level are necessary.

Salary and benefits will be offered commensurate with qualifications, experience and level of responsibility. Candidates intending to pursue a career in Pakistan will be given preference. If you are seeking professional growth and an excellent work environment, please send your detailed resume, bibliography and names of at least three referees familiar with recent work history to the **Personnel Manager**, The Aga Khan University, P.O. Box 3500, Stadium Road, Karachi-74800, Pakistan.



### UNIVERSITY OF MIAMI SCHOOL OF MEDICINE (UMSM) DEPARTMENT OF NEUROLOGY NEUROVIROLOGIST

Applications are invited from M.D. or Ph.D. neurovirologists at the ASSOCIATE OR FULL PROFES-SOR level to direct the new neurovirology section of the Department of Neurology. Tenure decisions will be based upcn candidate's qualifications. A VAMC position may be available. Applicants should have an established laboratory research program in neurovirology, preferably concentrating on retroviruses. M.D.'s must be Board-eligible/certified, and eligible for a Florida Medical Lieligible/certined, and eligible for a Florida Medical Li-cense. This is an exciting growth position in a depart-ment with extensive existing neuroscience research programs, including an AIDS Center, and Neuroimmu-nology Program. Collaborative opportunities in UMSM are excellent, with extensive research groups in virology, immunology, and molecular biology. Applications with curriculum vitae, names of three

Applications with curriculum vitae, names of three references, and copies of five recent publications to: Walter G. Bradley, D.M., F.R.C.P., Professor and Chairman, University of Miami School of Medicine, Department of Neurology (D4-5), P.O. Box 016960, Miami, FL 33101. The University of Miami is an Equal Our activity define the Endlewer Opportunity/Affirmative Action Employer.

### CHAIR, DEPARTMENT OF PATHOLOGY UCLA SCHOOL OF MEDICINE

The University of California, Los Angeles (UCLA), School of Medicine is recruiting a chair for its Depart-ment of Pathology. She/he will provide leadership for the teaching, clinical, and research programs of the

department. Candidates are requested to submit curriculum vitae to: Pathology Search Committee, UCLA School of Medicine, Office of the Dean, 12-138 CHS, Los Angeles, CA 90024-1722.

UCLA is an Equal Opportunity/Affirmative Action Employer.

**EXECUTIVE DIRECTOR.** South Florida Water Management District (West Palm Beach, Florida), 1425 employees and \$260-million budget. Requires seniorlevel executive management experience in a comparable organization and knowledge of water supply/quality issues, environment, and flood protection. B.A./B.S. re-quired, with an M.A./M.S. desirable. Send résumés imme-diately to: Norman Robert and Associates, 12424 Wilshire, #850, Los Angeles, CA 90025. Résumés subject to public disclosure under Florida public records law. Affirmative Action/Equal Opportunity Employer.

MOLECULAR BIOLOGIST. Senior level position for a molecular biologist with an interest in the neurobiology and/or treatment of Alzheimer's disease to join the new Alzheimer's Research Group at the Mayo Clinic Jacksonville. Presently three full-time staff researchers comprise this group: Dr. E. Richelson, M.D. is a psychiatrist and molecular pharmacologist who also serves as the director; Dr. A. P. Kozikowski and his group are chemists with extensive experience in the development of neuroactive agents; Dr. M. McKinney works in the areas of molecular pharmacology and molecular biology of cholinergic systems. Preference will be given to researchers with internationally recognized research programs.

Send curriculum vitae and names of three persons who can write letters of reference to: Dr. M. McKinney, Ph.D., Mayo Clinic Jacksonville, 4500 San Pablo Road, Jacksonville, FL 32224. Equal Opportunity Em-ployer. Smoke-free and drug-free workplace.

FACULTY TEACHING POSITIONS. The New York Chiropractic College is pleased to announce the relocation of its campus to the beautiful Finger Lakes Region in Seneca Falls, New York. The Division of Pre-Clinical Science invites applications for two full-time teaching positions, one in anatomy and one in physiol-ogy. Applicants should have a Ph.D. in the appropriate cipline, or an M.D. degree and also should be committed to excellence in teaching. Interested individuals should send curriculum vitae and names of three references by 21 July 1991 to:

Barbara J. Davis, Ph.D. Director, Pre-Clinical Studies New York Chiropractic College P.O. Box 800, Seneca Falls, NY 13148

The New York Chiropractic College is an Equal Opportunity Educator and Employer.

# **POSITIONS OPEN**

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

Nominations and applications are requested for the position of professor and chairman of the Department of Biochemistry of the University of South Alabama College of Medicine. The college is continuing the search to identify an individual who possesses, and has demon-strated, strong leadership abilities. The candidate should have a continuing record of research productivity and a commitment to the further development and strengthen-ies of the strengthene development and strengthene. ing of the research and teaching programs of the depart-ment. Applications and nominations are invited at this physications including curriculum vitae, bibliogra-phy, and the names and addresses of at least three references should be sent to:

Joseph H. Coggin, Jr., Ph.D. Associate Dean for Basic Medical Sciences University of South Alabama College of Medicine Mobile, AL 36688

An Equal Opportunity/Affirmative Action Employer.

The St. Louis Veterans Administration Medical Center (VAMC) is seeking a CHIEF OF STAFF. The Chief of Staff is fully responsible for programs of patient care and for the educational and research activities of the clinical services. The successful candidate will have extensive administrative experience in an academic medical center, a national reputation in research, and will qualify for professorial rank at St. Louis University and Washrésumé to: David Kipnis, M.D., Chairman, Chief of Staff Search Committee, c/o Director's Office, VAMC St. Louis, MO 63125. Questions may be directed to: John T. Carson at 314-894-6661. An Equal Opportunity Employer.

DIRECTOR. Opportunity to manage well-known potanic garden specializing in California native plants. Plan, budget, and implement horticulture, education, and research programs. Manage operation of garden with herbarium, library, bookstore, propagation facilities, while working with trustees on policy issues. Develop, attract, and maintain program support through grant funding and development activities. Qualifications: Proven management and leadership skills; experience in planen management and readersing skins, experience in plan-ning and budgeting. Ability to use outstanding commu-nications skills to obtain program funding and increase impact of garden on scientific community and visitors. Advanced degree in related field, Ph.D. preferred. Salary: Competitive, depends on experience; housing available. Excellent benefits. Deadline: 31 July 1991. Submit ré-Sumé in confidence to: Mrs. Robert M. Jones, Santa Barbara Botanic garden, 1212 Mission Canyon Road, Santa Barbara, CA 93105. Detailed job description on request. The garden is an Equal Opportunity Employer.

### SENIOR RESEARCH TECHNICIAN

The Howard Hughes Medical Institute, at the Massa-chusetts Institute of Technology in Cambridge, Massa-chusetts, is seeking a senior research technician to help organize and maintain a biochemistry/crystallography laboratory and work with Principal Investigator Carl O. Pabo to develop and implement novel strategies for the crystallization of protein/DNA complexes. Individual will have primary responsibility for managing and main-taining major laboratory equipment (DNA synthesizer, HPLC's, etc.), and helping to organize the daily opera-tion of the laboratory. Independent projects developing novel crystallization strategies (and/or helping to design novel DNA-binding proteins) will presume an active, intellectual involvement in the research and will provide opportunity for publication. We're looking for a highly motivated candidate

someone who can share our enthusiasm and interest and someone who's ready for the challenge of independent research. A strong background (B.S., M.S.) in chemistry, biochemistry, or molecular biology is required. Prefer-ence will be given to candidates with previous laboratory experience. Salary is commensurate with qualifications and experience. Please send cover letter and résumé to: Judith A. O'Connor, HHMI/MIT, 77 Massachusetts Avenue, 56-345, Cambridge, MA 02139. An Equal **Opportunity Employer.** 

# **POSITIONS OPEN**

### DIRECTOR OF LABORATORY ANIMAL MEDICINE

ACLAM Board-eligible veterinarian sought to provide veterinary care and manage operations of AAALAC-accredited research animal facility, plan future develop-ment of facility to support expanding research effort, direct masters of laboratory animal science degree program, and facilitate interactions between research animal facility and research faculty. Opportunity for extensive collaboration with faculty in animal research projects. Substantial resources, competitive salary, excellent fringe benefits, and academic appointment available. Energetic, motivated candidates who have the desire, experience, and ability to shape the future of the university animal facility should send résumé and three references to: Dr. Gary Aston-Jones, Hahnemann University Medical School, Mail Stop 403, Broad and Vine, Philadelphia, PA 19102

### ORTHOPEDIC **BIOMECHANICAL ENGINEER** WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE

West Virginia University Orthopedic Surgery Depart-ment invites applications for a tenure-track FACULTY POSITION in biomechanics.

Candidates must hold a Ph.D. and have a background in cell biology, kinesiology, and/or biomechanics. This position offers an opportunity for basic and clinical sciences research in the area of the healing of muscu-loskeletal injuries. Research involves an in-depth understanding of cell biology, anatomy, and bone remodeling. Salary and rank will be commensurate with education and experience. Applications should be sent by 31 July

1991 to:

J. David Blaha Chairman, Faculty Search Committee Department of Orthopedic Surgery West Virginia University 3511 Health Sciences South Morgantown, WV 26506

West Virginia University is an Equal Opportunity/Affirmative Action Employer.

### SENIOR FACULTY POSITION ENVIRONMENTAL ENGINEERING NORTHWESTERN UNIVERSITY

The Department of Civil Engineering at Northwestern University invites applications and nominations for a tenured senior-level faculty position in environmental engineering. Applicants should have an earned doctorate, and demonstrated leadership qualities and outstanding abilities in research and teaching at the graduate and undergraduate levels. A prime responsibility of the suc-cessful candidate is to provide leadership to the group and to enhance the program by additions at the junior level. An ideal candidate would be an engineer with primary research interests in environmental biotechnology, but other combinations of background and abilities will be considered.

All department facilities will undergo a complete re-construction during 1992 and new laboratories and offices will be available in 1993; timely interaction with the successful candidate would provide an opportunity to impact the design and equipping of these facilities. This position is available as early as the fall of 1991 and

prompt submission of credentials is encouraged; howev-er, the search will continue until a suitable candidate is obtained. Interested persons should send a résume to: Professor Raymond J. Krizek, Department of Civil Engineering, Northwestern University, Evanston, IL 60208-3109.

Northwestern University is an Equal Opportunity/Affirmative Action Employer. Applications from women and underrepresented minority groups are encouraged. Hiring is contingent upon eligibility to work in the United States.

POSTDOCTORAL POSITIONS. Available immediately to study the molecular aspects of regulation of human epidermal and cervical epithelial cell differentia-tion including the regulation of differentiated products in normal oncogene immortalized cells and in transgenic mice [*Cancer Research* 50, 5947 (1990)]. Submit curric-ulum vitae with names of references to: **Dr. Richard** Eckert, Department of Physiology and Biophysics, Case Western Reserve University, 10900 Euclid Av-enue, Cleveland, OH 44106–4970.

An Equal Opportunity/Affirmative Action Employer.

# PRINCIPAL INVESTIGATOR

INTERNATIONAL RESEARCH AND DEVELOPMENT CORPORATION is a leading independent contract research laboratory specializing in pre-clinical safety evaluation studies for the pharmaceutical, veterinary, agricultural and consumer industries, as well as governmental agencies.

We are seeking a Ph.D. in Toxicology, or other related biological science, with 3 to 5 years of post-doctoral experience as a Study Director in general toxicology. A background, or strong interest, in preparing detailed responses to Requests For Proposal (RFP) from government agencies would be an advantage. The successful candidate would be responsible for responding to all government proposals and would be the Principal Investigator, as well as Study Director, for several contracts.

IRDC's highly competitive compensation program, together with our generous benefits package, are reflective of our continuing expansion and commitment to excellence. If you would like to play a key role in our continuing success, and meet the challenge and rewards of working with a dynamic team, please submit your Curriculum Vitae, in strictest confidence, to:



Director, Human Resources International Research & Development Corporation 500 North Main Street Mattawan, Michigan 49071

IRDC IS AN EQUAL OPPORTUNITY EMPLOYER

# SUBJECT CATALOGING POSITION GS-9 (\$25,717–\$33,430) AND GS-11 (\$31,116–\$40,449) THE LIBRARY OF CONGRESS WASHINGTON, D.C. 20540

The Library of Congress is recruiting for a Subject Cataloger (Vac. Annc. #10293) with subject matter knowledge in the Life Sciences (Zoology/Natural History).

Minimum requirements include, at the GS-9 level, a Bachelor's degree in the appropriate subject area, a Master's degree in Library Science (or comparable library experience) or a Master's degree in the appropriate subject area, and a reading knowledge of German or Russian and one other modern European language. For the GS-11 level, applicants additionally need one year of appropriate subject cataloging experience. The position has promotion potential to the GS-12 level.

To apply, submit a Standard Form 171, Application for Federal Employment, to: The Library of Congress, Employment Office, 101 Independence Avenue, S.E., Room LM-107, Washington, DC. 20540, no later than July 7, 1991. Please be sure to specify both the announcement number and grade level for which you are applying. If additional information is needed, please call Maria Borges on (202) 707-9147.

Equal Opportunity Employer

# **POSITIONS OPEN**

# NATIONAL CANCER INSTITUTE NATIONAL INSTITUTES OF HEALTH PUBLIC HEALTH SERVICE

The Division of Extramural Activities, National Cancer Institute (NCI), seeks gualified applicants for a position as HEALTH SCIENTIST ADMINISTRATOR (HSA) (Series 601) or MEDICAL OFFICER (Series 602). The main function relates to management of peer review of large grant applications for extramural award mechanisms. The position is located in Bethesda, Maryland, and is open between the range of GS-12 to GS-14 (currently \$37,294--68,129 per annum). Clinically gualified physicians may also be eligible for additional physician's comparability pay of up to \$20,000. Medical officer candidates must have a medical degree with clinical specialization in areas of direct relevance to cancer and/or AIDS research. As an alternative to a civil service appointment, qualified applicants may be commissioned as officers in the U.S. Public Health Service.

HSAs typically are responsible for management of peer review of grants, contracts and cooperative agreements for the major programs of the Institute. In order to be considered as highly qualified for a rating as an HSA, candidates ordinarily should have a doctoral degree or equivalent, at least 3 to 5 years of postdoctoral professional experience in an area of research directly related to the programs and mandates of NCI, and evidence of independent research and publication capabilities. In addition to scientific credentials, evidence of administrative experience must be documented through activities such as faculty and administrative appointments, or award and management of research grants as a principal investigator or project leader on a multicomponent research award such as an NCI-funded center or program project.

Applicants must submit an Application for Federal Employment, Standard Form 171, available at most government offices or at the address given below. Additional documents such as a curriculum vitae may be submitted in addition to but not in place of SF-171. Applications from women and minorities are strongly encouraged.

Send applications by July 12, 1991 to:

Ms. Suzanne Ryan Personnel Management Specialist

NCI, NIH, EPS, Room T43 6120 Executive Boulevard Bethesda, MD 20892-4500



Copies of position descriptions will also be provided on request by calling (301) 496-8657. U.S. citizenship required.

NIH is an Equal Opportunity Employer



Let the free Science product information service put you in touch with the vendors whose products you will need.

Simply write us a letter stating the specifics about your proposed lab and the instruments and supplies you need. We will do the rest. Write to:

SCIENCE Magazine New Lab Service Department 1515 Broadway New York, NY 10036

hering

# VICE PRESIDENT Environment, Safety and Health

Associated Universities, Inc. (AUI), a non-profit educational and scientific institution, established in 1946, founded Brookhaven National Laboratory (BNL) in 1947 and has operated it ever since for the U.S. Department of Energy and its predecessor agencies. BNL, located at Upton, Long Island, NY, has some 3300 employees and a total annual budget in excess of \$300 million. AUI also founded the National Radio Astronomy Observatory (NRAO) in 1956 and has operated it ever since for the U.S. National Science Foundation. Both BNL and NRAO interact strongly with a worldwide community of universities and research institutions and provide facilities and services for thousands of scientists and engineers.

As the Vice President for ES&H, you will be principally headquartered at BNL but will be expected to interact closely with AUI headquarters in Washington, DC, and with other AUI sites. We are seeking an experienced environmental scientist with the following qualifications:

- Superior academic background
- Excellent communications abilities
- Understanding and experience with OSHA, RCRA, CERCLA, TSCA, CAA, CWA, SDWA
- Familiarity with DOE, NSF, Regulatory Agencies and National Laboratories
- Substantial background of working with the scientific community

AUI is an equal opportunity employer. Minorities and females are encouraged to apply. We have an excellent benefit program. Applicants are invited to send resumes and salary requirements in confidence, to: Thomas J. Davin, Jr., Vice President - Corporate Affairs, Associated Universities, Inc., 1400 16th Street, N.W., Suite 730, Washington, DC 20036.

# ASSOCIATED UNIVERSITIES, INC.



Take action within our researchdriven Department of Drug Metabolism.

Progressive in our thinking, innovative in our research, and recognized worldwide for the products we develop, Schering-Plough is sharpening its competitive edge in the health care industry, creating an environment that fosters achievement and strengthens your ability to assume increasing responsibility.

We are seeking Analytical and Biological Chemists to assist in quantification, isolation and identification of drugs and their metabolites using gas and/or liquid chromatography. Candidates should have a B.S. in Chemistry or Biochemistry and 0-3 years' relevant experience.

Schering-Plough offers excellent resources and support in addition to a competitive salary and comprehensive benefits. Ours is a smoke-free workplace. For immediate, confidential consideration, forward your resume and salary requirements to: Mr. Bill Decker, P.O. Box DS 91-01, Schering-Plough Research, 60 Orange Street, Bloomfield, NJ 07003 We are an equal opportunity employer.

What you have in mind, we put into action.



# ENVIRONMENTAL TOXICOLOGIST— STUDY DIRECTOR

Exxon Biomedical Sciences, Inc., has an immediate opening for a qualified individual as a study director in our Ecotoxicology Laboratory. The state-of-the-art laboratory includes facilities to culture and test marine and freshwater organisms. Acute and chronic tests of products and effluents are conducted in accordance with GLP and appropriate regulatory guidelines. The position requires the individual to act as a study director with full responsibility for sponsor interactions, study design, development of protocols, review and evaluation of the data, and final review and approval of reports. In addition, the position involves some administrative duties, including scheduling and coordination of studies and culturing, training lab personnel, monitoring ongoing studies, etc. The successful candidate should have a Ph.D. or Masters in Environmental Toxicology or related field and experience in an aquatic testing facility. A working knowledge of TSCA/ FIFRA GLPs, statistical methods, PC and mainframe computers is desired. Please forward resume to Franceen T. Cohen, Human Resources.

> EXXON BIOMEDICAL SCIENCES, INC. Mettlers Road, CN 2350 East Millstone, NJ 08875-2350

Equal Opportunity Employer M/F/H/V



AMYLIN CORPORATION is seeking a senior scientist to join the staff of our Biological Chemistry Department, which is conducting basic research in the areas of islet beta-cell function and regulation of fuel metabolism in peripheral tissues. The Corporation has assembled a multidisciplinary research team to pursue novel scientific approaches leading to new therapeutic strategies in diabetes, obesity, and related metabolic disorders. Pertinent references for the project include: **PNAS** 84, 8628 (1987); **PNAS** 85, 7763 (1988); **Nature** 335, 632 (1988); **PNAS** 86, 9662 (1989); **BBA** 1014, 247 (1989).

We invite applicants who have a Ph.D. or M.D. with completed postdoctoral training and a strong background in the study of carbohydrate biochemistry and intermediary metabolism, preferably with additional experience in relevant cellular and/or molecular biology, but applicants with related interests are encouraged to apply.

Amylin offers a scientifically stimulating and challenging opportunity to participate in a new area of biomedical science, as well as an excellent compensation and benefits package which includes equity participation. For immediate consideration, send your resume to: Audrey H. McGovern, Human Resources Administrator.

Amylin Corporation 9373 Towne Centre Drive Suite 250 San Diego, CA 92121 Fax (619) 552-2212

Amylin Corporation is an equal opportunity employer.



# Materials Synthesis through Biology

Ytaff scientist sought as an independent investigator in Enzymatic Synthesis of Materials Program. Research involves the engineering and use of enzymes and other biological processes in the synthesis of novel materials. Collaborations with UC Berkeley/ LBL scientists in use of catalytic antibodies. enzymology, bioorganic chemistry, synthetic organic chemistry and protein modeling. Investigator will select own areas of research consistent with program goals. Position is funded but investigator would be expected to contribute to program growth through grants and contracts. Some program management involved. Possible UC Berkeley teaching. Ph.D. and research experience in chemistry (synthetic organic, bioorganic, polymer synthesis), biochemistry, materials science, or related field; demonstrated ability to do independent research; ability to work well with senior colleagues and also supervise the work of technicians, postdoctoral fellows and students; ability to speak well. Industrial experience desirable. Send resume and three references to Lawrence Berkeley Laboratory (specify Job #B/6529), Employment Office, 90-1042, 1 Cyclotron Road, Berkeley, CA 94720. EOE. M/F/H.



LAWRENCE BERKELEY LABORATORY UNIVERSITY OF CALIFORNIA U.S. Department of Energy

# DIRECTOR of MOLECULAR BIOLOGY

As part of our commitment to expansion of our programs in Basic Animal Science Research, we are seeking a highly motivated and innovative scientist to direct our ongoing molecular biology projects and to initiate new research programs. The focus of the department is to define and exploit new targets for drug development in the area of growth promotion and parasitology. The molecular biology department is integrated with a multidisciplinary team involving biochemistry, electrophysiology, pharmacology, and transgenetics. Current research is focused on *C. elegans*, parasitic nematodes, protozoan parasites, insects, and transgenic animal models.

Qualifications include a Ph.D. in Molecular Biology or Molecular Genetics together with 5+ years of postdoctoral experience. In addition, excellent communication skills and publication record together with a demonstration of successful management of research groups is required. A background in the area of insect genetics, neurobiology, or parasitology would be an advantage.

We offer an attractive compensation package and the opportunity to make a significant scientific contribution. Interested applicants should submit a curriculum vitae to Susan R. Jenkins, R80-A3, Merck & Co., Inc., P.O. Box 2000, AD#83, Rahway, NJ 07065.

EEO/AA/VH Employer



Merck & Co., Inc.



# **Ecological Toxicologist**

CIBA-GEIGY's Agricultural Division, a world leader in agricultural chemicals, has an opening for a highly motivated ecologi-

cal toxicologist in its Toxicology Department located in Greensboro, NC.

Responsibilities include contracting and monitoring ecological toxicology studies required for EPA pesticide registration, preparation of risk assessment reports, and interaction with the USEPA and state regulatory groups on study protocols, test results and related risk issues.

Qualified candidates will have a PhD, or MS and 5 years' experience, in ecological toxicology. Experience with computer exposure models is an asset. Highly qualified individuals with advanced degrees and experience in related environmental fields may also be considered.

CIBA-GEIGY offers a competitive salary, a creative atmosphere where innovation is valued, team problem solving and support for professional growth. Travel is required and averages 3-5 days per month. Please forward resume with salary history to Chris McSwain, Human Resources, CIBA-GEIGY Corporation, Agricultural Division, P. O. Box 18300, Greensboro, NC 27419-8300. We are an Equal Opportunity Employer M/F/H/V.

Science Serving Mankind



### **POSTDOCTORAL POSITIONS**

Postdoctoral positions available to study AIDS pathogen *Pneumocystis carinii* with a multidisciplinary team of NIH-supported basic and clinical scientists. Research areas include molecular genetics, cell biology, immunology, host-parasite interactions, and epidemiology. Send curriculum vitae to: Dr. James R. Stringer, Chairman, Search Committee, Department of Molecular Genetics, Biochemistry, and Microbiology, University of Cincinnati, 231 Bethesda Avenue, Cincinnati, OH 45267-0524.

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS IN MOLECU-LAR GENETICS. Two positions are available immediately for 2 years to study the molecular mechanisms of testis differentiation and spermatogenic regulation. The first project uses molecular genetic and DNA-protein binding methods to characterize genes isolated from the sex chromosomes and to identify transcription factors important for testis-specific gene expression. The second project utilizes transgenic mouse techniques to identify the function of the above genes. Experience in recombinant DNA technology (library construction, DNA sequencing, DNase footprinting, and gel retardation assays) or mouse developmental biology (embryo manipulation and microinjection) is preferred. Applicants with a desire to learn the above techniques and/or to study molecular genetics of the Y chromosome and testicular function will also be considered. Send curriculum vitae and names of three references to: Dr. Chris Lau, Division of Cell and Developmental Genetics, 111C5, Veterans Administration Medical Center-UCSP, 4150 Clement Street, San Francisco, CA 94121. Telephone: 415-476-8839. Affirmative Action/ Equal Opportunity Employer.

### POSTDOCTORAL POSITION

Position available immediately to study the mechanism(s) of resistance of cancer cells to inhibitory growth factors and inducers of terminal differentiation. This guestion will be approached using a combination of techniques, such as somatic cell hybridization, chromosome banding, and cloning of differentially expressed genes. Ph.D. required. Expertise in molecular biology and/or protein chemistry preferred. Send curriculum vitae, description of research interests and long-term goals, relevant reprints, and the names of three references to: Michael Reiss, M.D., Associate Professor, Department of Medicine, Section of Medical Oncology, NS 291 (SHM), Yale University School of Medicine, 333 785-7217.

### **POSTDOCTORAL POSITION**

Available for investigations of cellular/molecular mechanisms of neurodegenerative diseases. Our laboratory uses a variety of approaches to study several human neurodegenerative diseases, including Alzheimer's disease and motor neuron disease, and related animal models. This position is part of a research program dealing with several research areas, including the neuronal cytoskeleton, transmitter systems, the amyloid precursor protein, and trophic factors.

Send curriculum vitae and two letters of recommendation to: Donald L. Price, M.D., Neuropathology Laboratory, The Johns Hopkins University School of Medicine, 509 Pathology Building, 600 North Wolfe Street, Baltimore, MD 21205-2181. Affirmative Action/Equal Opportunity Employer. We encourage applications from minorities. Because of funding requirements, applicants limited to U.S. citizens/permanent residents.

POSTDOCTORAL FELLOW/JUNIOR RE-SEARCH ASSOCIATE. A position is immediately available to participate in NIH-funded research on the regulation of inflammatory cell metabolism and function. Main focus is on the role of arginine and reactive nitrogen intermediates in the control of inflammation and wound healing. Competitive salary and benefits. Interested candidates with a Ph.D. degree in biochemistry, cellular biology, or immunology should send their curriculum vitae, statement of research interests, and the names of three references to: Jorge E. Albina, M.D., Division of Surgical Research, Department of Surgery, Rhode Island Hospital, 593 Eddy Street, Providence, RI 02903. An Equal Opportunity/Affirmative Action Employer.

# **POSITIONS OPEN**

### FOUR POSTDOCTORAL POSITIONS MARINE AND FRESHWATER BIOMEDICAL SCIENCES CENTER UNIVERSITY OF MIAMI

Newly created NIEHS Center has positions in the areas of: marine toxins as neurophysiological probes; hepatic metabolism of marine toxins by fish; experimental pathology and immunology of tumors in fishes; metabolic neurophysiology of aerobic/anaerobic transitions in turtle brain.

Current center investigators include: David Adams (electrophysiology), Daniel G. Baden (biochemical toxicology of marine toxins), Judith S. Bean (epidemiology and biostatistics), Lora E. Fleming (epidemiology and public health), Peter L. Lutz (molecular physiology), E. Churchill McKinney (immunology), Michael C. Schmale (pathology and carcinogenesis), Thomas Sick (neurophysiology), Patrick J. Walsh (metabolic biochemistry).

Appointments for 2 years at \$25,000 per annum. Send curriculum vitae, letter of research interests, and names, addresses, and telephone numbers of three references by 15 July 1991, for a 1991 start, to:

Dr. Daniel G. Baden, NIEHS MFBS Center Director Division of Marine Biology and Fisheries Rosenstiel School of Marine and

Atmospheric Science 4600 Rickenbacker Causeway

Miami, FL 33149

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

POSTDOCTORAL FELLOWS, University of Hawaii, two positions available 1 July 1991 to study molecular mechanism of action of retinoids as cancer chemopreventive agents. Areas of interest include: retinoid action on gap junction synthesis, assembly, and function; role of RARs in retinoid action; use of in vitro models of human skin; development of electrophysiologic methods to measure junctional communication. Send curriculum vitae and names of three references to: Dr. J. S. Bertram, Cancer Research Center, 1236 Lauhala Street, Honolulu, HI 96813.

### POSTDOCTORAL FELLOW IN MOLECULAR BIOLOGY

Work on preparation of cDNA libraries from gammairradiated mammalian cells in culture, and molecular cloning from these libraries of cDNA species specific for radiation repair and radiation damage, or early response genes in growth factors induced by irradiation as part of the repair process.

Experience is required in biochemistry including protein sequencing, but primarily in molecular biology with experience in Northern and Southern analysis, DNA sequencing, PCR cloning, plasmid construction, subtractive hybridization, work with GenBank. Applicants should send three letters of recommenda-

Applicants should send three letters of recommendation and curriculum vitae to: Joel S. Greenberger, M.D., Professor and Chair, Department of Radiation Oncology, University of Massachusetts Medical Center, 55 Lake Avenue North, Worcester, MA 01655.

**POSTDOCTORAL RESEARCH ASSOCIATE.** Available immediately to study the effects of toxicants on epithelial cell differentiation and gene expression. Ph.D. required; background in cellular and molecular biology desirable. Send curriculum vitae and three references to: Dr. Ellen A. Rorke, Department of Environmental Health Sciences, Case Western Reserve University (CWRU), School of Medicine, 2109 Adelbert Road, Cleveland, OH 44106–4940. CWRU is an Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL RESEARCH ASSOCIATE**, Brookhaven National Laboratory. The Biology Department has a position available for a recent Ph.D. trained in biochemistry or biophysics, with an interest in protein design and genetic engineering. The successful candidate will study structure-activity relationships in the adenovirus penton base subunit. The studies will employ recombinant viruses, purified proteins, and peptides.

Applicants should submit curriculum vitae with a list of publications, a statement of research interests, and names of three references to: Dr. Paul I. Freimuth, Biology Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, L.I., NY 11973. Equal Opportunity Employer, M/F.

# **POSITIONS OPEN**

POSTDOCTORAL POSITION. Immediate opening. Requires a Ph.D. in cellular and molecular biology. Will participate in research using monoclonal antibody, cDNA expression clones, fluorescence microscopy, and microinjection techniques to study structure and function of cytoskeletal proteins in normal and transformed cells. Experience in using recombinant DNA techniques highly desirable. Send curriculum vitae and three references to: Dr. Jim Lin, Department of Biology, University of Iowa, Iowa City, IA 52242. The University of Iowa is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION. At Oak Ridge National Laboratory to do research in Compensatory Mechanisms (COMPMECH) in fish populations program. COMPMECH is aimed at synthesizing the quantitative understanding of critical stages and processes involved in fish population regulation. Position involves adapting existing models under development for additional species/populations. Experience in developing and applying mathematical and simulation models of populations and some FORTRAN experience helpful. For position information: Webb Van Winkle, Environmental Sciences Division, ORNL, P.O. Box 2008, Oak Ridge, TN 37831–6038, telephone: 615-574-7398; for application material: Postgraduate Research Program/PG-VW, Science/Engineering Education Division, Oak Ridge, TN 37831–0117. Telephone: 615-576-3456.

# POSTDOCTORAL POSITIONS DNA REPAIR MECHANISMS

Two postdoctoral positions are available beginning June 1991 to join a multidisciplinary group analyzing the structure/function of DNA repair enzymes. Approaches include directed mutagenesis, chemical modification, and crystallography. Additional studies include the cloning of human DNA repair genes. Send curriculum vitae to: **R.** Stephen Lloyd, Ph.D., Department of Biochemistry, Vanderbilt University, Nashville, TN 37232–0146.

**PROTEIN CRYSTALLOGRAPHER/SEEKING MINORITY POSTDOCTORAL APPLICANTS.** Position aimed at increasing underrepresented minority participation in structural molecular biology. Laboratory focus is on structure determination and design of proteins involved in protection against oxidation and pathogenesis, including superoxide dismutases, DNA-repair metalloenzymes, and fiber-forming pilin proteins. Excellent environment and facilities. Send curriculum vitae and names of three references to: John Tainer, Molecular Biology MB5, The Scripps Research Institute, La Jolla, CA 92037. FAX: 619-554-6880. Internet: jat@scripps.edu.

RESEARCH SCIENTIST, APPLIED PHYSICS AND MATERIALS. We are looking for a RE-SEARCH SCIENTIST/INDUSTRIAL POSTDOC-TORAL RESEARCH ASSOCIATE to work on developing processes and functionally gradient coatings on SiC fibers for high-temperature composite materials. Ph.D. (foreign or U.S. degree) in applied physics. One year of experience in the field is desirable. Experience and/or coursework must include: analysis of energy models for processes, economic/cost benefit analysis of processes, process, simulation for material coatings. Salary: \$577 per week; full time. Send curriculum vitae to: Dr. K. Pourrezaei, President, PRD, Inc., 3401 Market Street, Suite 227, Philadelphia, PA 19104.

**POSTDOCTORAL/RESEARCH ASSOCIATE**. Position available now to investigate the molecular and cell biology of the protozoan parasite, *Entamoeba histolytica*. Studies include role of the cytoskeleton and signal transduction in parasite-target cell interactions; isolation, identification, and functional characterization of attack-related proteins. The preferred candidate will have a solid background in biochemistry and experience in 2-D PAGE, immunological and molecular genetic technologies. Morehouse School of Medicine is a new institution with excellent research facilities and environment for career development. Please send curriculum vitae and names of three references to: Dr. Gordon Bailey, Department of Biochemistry, Morehouse School of Medicine, Atlanta, GA 30310. FAX: 404-752-8443. *Women and minorities are encouraged to apply.* 

# **RESEARCH SCIENTIST**

Promega Corporation, a world leading biotechnology company, is seeking a talented individual for the position of Research Scientist.

This person will work as a member of a team that is developing nucleic acid probe methods and products. Qualifications include a Ph.D., preferably with postdoctoral experience, or an M.S. with extensive relevant experience. Background knowledge and strong technical skills are needed in one or more of the following areas: chemical modification and synthesis of nucleic acids, nonradioisotopic detection, nucleic acid amplification, molecular biology. Enthusiasm, productivity, organization, and the desire to work cooperatively as part of a group with ambitious goals are essential.

We offer a competitive salary, comprehensive benefits, and a challenging, high-growth environment in our modern facilities. All information will be kept in strict confidence. To apply or for further information, forward a resume and salary history or write to:

Equal Opportunity Employer



PROMEGA CORPORATION HUMAN RESOURCES/FOOD 2800 WOODS HOLLOW ROAD MADISON, WI 53711-5399

# Postdoctoral Research Fellowship

# Pharmacokinetics and Drug Metabolism

The Fellow will assess biological barriers to successful systemic delivery of therapeutic entities which are peptide analogs. To accomplish these goals, a multidisciplinary approach will be used, beginning with a knowledge of the physicochemical properties of the molecule. Appropriate in vitro, in situ and in vivo models will subsequently be selected and employed to describe biotransformation, biological transport and metabolism processes which may be rate-limiting to systemic availability. The Fellow will focus on in vitro and in situ systems to study drug transport and metabolism in mammalian small intestine.

Ongoing projects in the laboratory utilize, but are not limited to, two areas of experimentation: stability and enzyme-targeting determinations in biological matrices relevant to the gastrointestinal tract; assessment of intestinal membrane permeability. The intent of this work is to aid in the discovery of therapeutic peptides and analogs which are bioavailable after oral administration.

Applicants should have a Ph.D. in Biological Chemistry, Physiology, Pharmaceutics or a related discipline. Experience with animal and/or cell culture models and a strong analytical background are desirable.

All appointments are for one year, renewable for a second year. Compensation includes a highly competitive salary with relocation expenses and a comprehensive benefits package. Send CV and list of references to Human Resources, Box JDM-0017, PARKE-DAVIS Pharmaceutical Research Division, 2800 Plymouth Road, Ann Arbor, MI 48105. "Smoke-Free Work Environment"

"Equal Opportunity in Action"

# PARKE-DAVIS A DIVISION OF WARNER LAMBERT

# Postdoctoral Scientist

Genentech, Inc., a state-of-the-art leader in the biotechnology industry, has an immediate opening for a Postdoctoral Scientist to study protein hormones in animal models of human disorders.

This includes examining the expression of endogenous proteins as well as investigating the effects of administering their recombinant counterparts. A multidisciplinary approach using biochemical, immunological and molecular techniques will be employed. The successful candidate must have a PhD or equivalent.

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



# MOLECULAR BIOLOGIST

INTERESTED IN GENE EXPRESSION IN MAMMALIAN CELLS

The Surgery Branch of the National Cancer Institute has an immediate opening for a Senior Investigator to join its studies of the gene therapy of human cancer. This position involves a responsibility for studies of the introduction of genes into human lymphocytes and tumor cells using retroviral mediated gene transduction. The position involves responsibility for conducting independent research programs in this area and the supervision of junior scientists. Prior postdoctoral experience in molecular biology is required. Interested candidates should send a Curriculum Vitae and two letters of reference. For further information and application procedures, please contact:

Steven A. Rosenberg, M.D., Ph.D. Chief, Surgery Branch National Cancer Institute National Institutes of Health Public Health Service Building 10, Room 2B42 9000 Rockville Pike Bethesda, Maryland 20892 (301) 496-4164



NIH is an Equal Opportunity Employer

# RESEARCH OPPORTUNITIES IN PLANT BIOTECHNOLOGY

The Department of Biotechnology Research at Pioneer Hi-Bred International Inc. is seeking applicants for our ongoing program of crop improvement. Pioneer offers competitive salaries, excellent facilities and a highly cooperative research environment. Successful candidates will be expected to interact extensively with ongoing research in our transformation, gene expression or gene identification and isolation programs.

**Project Leader, Molecular, Biology - Gene Isolation** - This position will expand our program in the identification and isolation of genes capable of preventing insect damage and will focus directly on research questions. The successful candidate will provide expertise in the isolation of genes from a variety of sources using techniques such as construction of oligonucleotides from anino acid sequences, probing cDNA libraries with degenerate oligonucleotides and the screening of expression libraries with antibodies. A PhD degree in molecular biology or a related field plus at least 2-3 years relevant postdoctoral experience is required for consideration.

Project Leader, Molecular Biology - Gene Identification - This position will be part of a group working to establish a high resolution RFLP map in maize and will focus directly on research questions. The successful candidate will be expected to have extensive experience with PCR technology, molecular cloning of plant DNA and interested in the development of new techniques to replace traditional RFLP analysis. Familiarity with maize genetics and RFLP technology is desirable. A PhD degree in molecular biology, genetics or a related field with at least 2-3 years relevant postdoctoral experience is required for consideration.

Protein Biochemistry Post-Doctoral Research Associate - A post-doctoral position is immediately available to study the structure-function relationship and identify domains in proteins possessing insecticidal activity. The successful candidate will have a PhD in biochemistry with experience in protein purification and characterization, chemical modification and analysis.

Applications received by June 28, 1991 will be assured of consideration. However, applications will be considered until the positions are filled. Pioneer Hi-Bred International Inc. is an Equal Opportunity/Affirmative Action Employer. Send resume including the names, addresses and telephone numbers of three references and the position for which you are applying for to:



Pioneer Hi-Bred International Inc. Plant Breeding Division / Department of Biotechnology Jane Blacketer 7300 N.W. 62nd Ave. P.O. Box 38 Johnston, IA 50131 • (515) 270-3795



Let the free Science product information service put you in touch with the vendors whose products you will need.

Simply write us a letter stating the specifics about your proposed lab and the instruments and supplies you need. We will do the rest. Write to:

SCIENCE Magazine New Lab Service Department 1515 Broadway New York, NY 10036





# THE SCIENCE RECRUITMENT "FOUR-DAY CLOSE"

# Now you can see your ad in SCIENCE four days after submission

Scientific recruiters can now advertise positions almost as soon as the need arises. Instead of reserving space a month or more in advance, you can now place your ad four days before the magazine mailing date. SCIENCE is mailed on the cover date.

Film (right-reading, emulsion face down) or full camera-ready art and insertion order must reach: SCIENCE, Short Close Desk, 1515 Broadway, New York, NY 10036 by NOON Mondays (except for legal holidays when material must reach New York by NOON Fridays). Because space is limited, the four-day close page will be reserved on a first-come, first-served basis, at a 15% premium. 1/4, 1/2 or full page only.

Now you don't have to wait to find the researchers you need immediately, nor must you advertise in a Sunday paper that pans a lot of sand but not much gold. Scientific employers know that **SCIENCE** ads fill the job better. Now they fill it faster too.

You can call it "INSTANT RECRUITMENT."

For further information, telephone Ed Keller, Recruitment Advertising Manager, or Gwen Cantor, Advertising Traffic Manager at SCIENCE: 212-730-1050, or write to:

# SCIENCE, 1515 Broadway, NY, NY 10036

# **CURRENT DISTRIBUTION 160,000**

# RESEARCH SCIENTISTS AND ASSOCIATES PROTEIN CHEMISTRY

**Amgen** has emerged as the industry leader in the discovery and development of human therapeutic products through applications of biotechnology. As part of our continuing commitment to research, we are actively seeking scientists at all educational levels to contribute to new and ongoing research programs leading to the purification and characterization of natural and recombinant proteins.

# RESEARCH SCIENTISTS Department #588

Qualified candidates for these positions must have a PhD in Biochemistry or a related discipline and a minimim of two years' post-doctoral experience. Expertise in methodologies for the purification and characterization of proteins is essential.

# RESEARCH ASSOCIATES Dept. #589

Candidates for these positions must have a minimum of a Bachelor's degree in Biochemistry or a related discipline and a minimum of two years' experience in the purification and characterization of proteins. Experience in chromatographic and electrophoretic techniques is essential. Familiarity with HPLC is desirable.

**Amgen** is committed to providing a challenging and collaborative environment in which scientists are stimulated to develop to their full potential with significant opportunity for scientific recognition. In addition, Amgen offers an excellent compensation and benefits package with equity opportunities.

If you have the necessary qualifications and would like to be a part of an organization that places a high priority on its human resources, please send a CV, in confidence, to:

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



# MANAGER FOR RISK ASSESSMENT

The Engineering and Environmental Technology Department of Midwest Research Institute (MRI) is seeking an experienced professional to develop risk assessment business and direct federal and industrial research programs.

Responsibilities include:

- program development of risk assessment business area; extensive interaction with clients,
- program leadership, staff supervision and financial responsibility and budget management,
- study design and coordination; preparation of proposals and reports.

This position requires an M.S. or Ph.D. in environmental engineering, environmental science, toxicology, or process/chemical engineering (P.E. desired), plus a minimum of eight to ten years directly related experience, or equivalent. This experience should reflect program and line management responsibility for risk assessment/risk management projects in such areas as industrial processes, air toxics and exposure and transport modeling. Industrial experience in chemicals, petroleum, paper or manufacturing highly desirable. Excellent communication and interpersonal skills are also required.

MRI offers competitive compensation, a comprehensive benefits package, paid relocation, and excellent. career opportunities in a dynamic, quality-oriented setting. Interested candidates should fax or send resumes to Personnel Dept. (CFH):

EEO/AA, M/F/V/H, A Drug Screening Employed

MIDWEST RESEARCH INSTITUTE 425 Volker Boulevard Kansas City, MO 64110 FAX 816-753-8420

# MOLECULAR BIOLOGY Technical Sales Consultants

MRIG



**QIAGEN INC.** is a fast growing Los Angeles area company,

committed to excellence in the development and marketing of unique and innovative products for molecular biology. We are seeking highly motivated and talented individuals to join our sales team.

Applicants should have a BS/MS degree in molecular biology or related fields and 2+ years of lab experience in molecular biology. Prior sales experience is preferred, but not necessary. Sales territories are available in North Carolina, Texas, Missouri, Illinois, Washington, New York, Maryland and Ohio.

We offer competitive salaries, benefits including relocation assistance and a challenging, high growth environment. For immediate consideration, please send a resume, salary history and reference names to: **QIAGEN INC., Human Resources**,

9259 Eton Avenue, Chatsworth, CA 91311 (Phone: 800-426-8157, Fax: 818-718-2056).

# RESEARCH LABORATORY TECHNICIANS

Since June of 1987, Mayo Clinic Scottsdale has grown to over 700 employees with plans to expand the facility to twice its current size by mid 1992. Laboratories are under construction to initiate a long-term program of research development. Plans include modern research space and equipment. Principal investigation involves connective tissue gene activation in fibroproliferative lung disease. Technicians receive support from the entire research, educational, and clinical resources of the Mavo Clinic, Mayo Medical School, Mayo Graduate School and the Graduate School of Medicine.

- Currently, Mayo Clinic Scottsdale is seeking technicians with a B.A./ B.S. or M.S. in Biology, Biochemistry or a related field. Experience in recombinant DNA technology including molecular cloning, PCR, plasmid purification, gene expression, mammalian cell culture (particularly ES cells desirable) required.
- An additional research position is available for a Research Technician with a B.A./B.S. in Biology or a related field. Experience preferred in in situ hybridization, histology, frozen sectioning, immunohistochemistry (immuno EM desirable). Basic recombinant DNA experience or knowledge is useful.

# ATTRACTIVE COMPENSATION PACKAGE:

- Competitive salaries
- Comprehensive relocation package
- Outstanding benefits
- Impressive personal security program

# ADDITIONAL AMENITIES:

- Sunny days
- Recreational attractions year-round
- Beautiful, warm weather

Interested candidates may call to request an application or may submit a resume to:

Kevin P. Cannon Personnel Department 13400 E. Shea Blvd. Scottsdale, AZ 85259 (602) 391-8200



Mayo Clinic is an Equal Opportunity/ Affirmative Action Educator and Employer

# **POSITIONS OPEN**

**RESEARCH SCIENTIST**. With Ph.D. in immunology or microbiology and strong background in both fields to head up program in Pediatric Otolaryngology Immunobiologic Research at The Children's Hospital of Buffalo. Experience required at postdoctoral level. Salary competitive. Send curriculum vitae to: Linda Brodsky, M.D., Department of Otolaryngology, Children's Hospital of Buffalo, 219 Bryant Street, Buffalo, NY 14222.

### EPIDEMIOLOGIST COLUMBIA-PRESBYTERIAN MEDICAL CENTER

The Irving Center for Clinical Research seeks an epidemiologist for an ongoing multicenter trial in the field of reproductive medicine. Job title: ASSOCIATE RESEARCH SCIENTIST. Requirements: Ph.D. in epidemiology and a minimum of 2 years of experience coordinating medical research protocols. Send résumé and salary history to: Ms. Rosemary A. Martino, Administrative Director, Irving Center for Clinical Research, 622 West 168th Street, PH 4-124, New York, NY 10032.

Columbia University is an Equal Opportunity Employer.

### TUMOR BIOLOGY CAREER SCIENTIST POSITION DEPARTMENT OF LABORATORY MEDICINE AND PATHOLOGY MAYO FOUNDATION

Applications are invited for a full-time career scientist staff position in tumor biology. Preference given to candidates with interest in growth factor/receptors and regulation of cell growth. Excellent facilities, support and research environment available for an established or highly promising research investigator. Level of appointment commensurate with qualifications. Send curriculum vitae, brief statement of research interest, and names of three references to: **Tumor Biology Search Committee**, **920 Hilton Building, Mayo Foundation, Rochester, MN 55905**. Mayo Foundation is an Affirmative Action/ Equal Opportunity Employer.

# MYCOLOGIST

Mycologist for private laboratory. Candidates must be competent in field collecting, identification, and laboratory culture of higher fungi. M.S., Ph.D., or A.B.D. Qualified applicants should send résumé, references, and cover letter, in confidence, to: Box 3, SCIENCE Classified Advertising, Room 940, 1333 H Street, N.W., Washington, DC 20005.

BIOLOGICAL CONSULTANT. For northwestern Ohio land development and investment firm to research, study, and analyze environment and impact of development for land parcels in Eastern People's Republic of China; prepare technical reports on land development, environmental impact, and utilization of natural resources using statistical analysis. Six months of experience in above duties and a B.S. in biological science required. Must be able to speak, read, and write biological terms in Mandarin and Shanghaiese; must be willing to travel to Eastern People's Republic of China for up to 5 months at a time once per year. Monday to Friday, 8 a.m. to 5 p.m.; salary: \$27,455 per year. Must have proof of legal authority to work permanently in the United States. Send résumé in duplicate (no calls) to: S. Holton, JO#1153493, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.

RESEARCH ASSOCIATE POSITION. Research associate in molecular biology to study regulation of gene expression by RNA binding proteins. Studies will involve the analysis of RNA-protein interactions using in vivo and in vitro methods, electrophoretic mobility assays, RNA footprinting, RNA sequencing, purification and characterization of RNA binding factors, and their subcellular localization. Applicant should have Ph.D. in biochemistry or biology and at least 3 years of postdoctoral experience with particular expertise in use of FPLC for purification of proteins and RNA protein complexes, in addition to recombinant DNA methodology. *Applicants who are not U.S. citizens must indicate basis for work authorization in the United States*. Salary is \$22,400 per year; 40 hours per week, 8:30 a.m. to 5:00 p.m. Contact: Employment Security Commission of North Carolina, 516 North Mangum Street, Durham, NC 27701 or your nearest Job Service Office. Refer to Job Order No. NC3002114, DOT Code 090.227-010.

# **POSITIONS OPEN**

MOLECULAR PLANT PHYSIOLOGIST/GE-NETICIST/PATHOLOGIST. USDA, Agricultural Research Service, Oilseeds Research Unit, Fargo, North Dakota. A temporary position NTE 3 years is available to a qualified candidate with experience in plant molecular biology and biochemistry. The major focus of this research will be the development of reliable methods for production of transgenic sunflower with improved resistance to sunflower insects. Knowledge of molecular biology and biochemistry is required. Ph.D. desired. Starting salary for GS-11/12, \$31,116 to \$37,294 per annum. For job announcement/forms contact: Cathleen Enuton, 301-344-3138 or write to: Personnel Division, 6305 Ivy Lane, Room 318, Greenbelt, MD 20770-1435. Information about the position, contact: Dr. Brady Vick, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, ND 58105. Telephone: 701-239-1322. Closing date of announcement 11 July 1991. U.S. citizenship required. An Equal Opportunity Employer. Minorities and women are encouraged to apply.

> RESEARCH ASSOCIATE POSITION INVOLVING ELECTRON MICROSCOPY DEPARTMENT OF MOLECULAR GENETICS AND CELL BIOLOGY THE UNIVERSITY OF CHICAGO

A research associate position is available in the area of transgenic mice as models for the study of human diseases. The laboratory has extensive expertise in molecular biology and transgenic mouse technology. We are searching for an accomplished electron microscopist to participate in these and other studies. Knowledge of embedding/sectioning of tissues and immunoelectron microscopy is desirable. Long-term employment is possible, and Ph.D. is desirable, but not essential. Salary is excellent and commensurate with experience. Please send curriculum vitae and three references to: Dr. Elaine Fuchs, Howard Hughes Medical Institute, Department of Molecular Genetics and Cell Biology, The University of Chicago, 5841 South Maryland Avenue, Box 391, Chicago, IL 60637. An Affirmative Action/Equal Opportunity Employer.

CANCER BIOLOGIST. Responsible for the development of chemotherapeutic agents for radiotherapy or for activation in specific solid tumor microenvironments; duties include studies of the roles of hypoxia and growth factors in therapy, cell-cell interactions, and tumor development involving extensive use of the multicellular spheroid model. Requires Ph.D. in chemistry (organic) plus 3 years of experience in job offered or in postdoctoral research of biological chemistry in cancer research. Also requires demonstrated expertise and prior successful developments in radiation chemistry mechanistic studies of chemotherapeutic drugs, especially radiosensitizers and hypoxic cell toxins; experience with organic structural analysis and synthesis, chemical analysis, basic techniques of molecular biology and protein chemistry, hypoxia technology, cell culture techniques, and assays for DNA damage. Salary: \$46,200 per year. Job and interview site: Menlo Park, California. Send this ad and a résumé to: Job #WS12213, P.O. Box 9560, Sacramento, CA 95823–0560 not later than 28 June 1991. *Must have legal right to work*.

Research hospital in Memphis, Tennessee, is seeking a qualified ASSOCIATE SCIENTIST to participate in the on-going research on cancer. To study mitochondrial function in cell grown in tissue culture; investigate the mechanisms of action of chemotherapeutic agents on the energy metabolism; both in vivo and in vitro. Design procedures to isolate and evaluate functions of mitochondrial and other cellular enzymes, and study the effects of sulfonyl ureas on these orginells using laboratory methods such as HPLC, tissue culture, enzyme assays, electrophoresis, radioisotopes, and equipment like centrifuges, pH meter, spectrophotenters, laminor flow hoods, computers. Requires M.S. with major in chemistry, biochemistry or biology and 4 years of experience. Must be able to work independently in the laboratory. Must have detailed knowledge of energy metabolism, enzyme isolation and function HPLC. Salary: \$35,000 per year. To apply, send résumé to: Mike Daniel, Job Service Program and Technical Support, Tennessee Department of Employment Section, Nashville, TN 37245–1200. Please refer to job order number TN1235886. Affirmative Action/Equal Opportunity Employer.

SCIENCE, VOL. 252

# **Research Positions Available**

Laboratory of Molecular Genetics National Institute on Aging

Postdoctoral and Staff Fellowship (junior/senior level) research positions are available immediately to study the regulation of mammalian stress responses including:

1) regulation of heat shock protein expression *in vivo* and *in vitro*.

2) transcriptional regulation of genes induced by DNA damage and growth arrest and

3) genes induced in response to oxidative stress.

Experience in molecular biology and/or protein biochemistry is highly desirable, but not essential.

Starting salary commensurate with qualifications and experience. Interested candidates should submit curriculum vitae to:

Nikki J. Holbrook, Ph.D. Senior Investigator Gerontology Research Center National Institute on Aging 4940 Eastern Avenue Baltimore, MD 21224



NIH is an Equal Opportunity Employer

SCIENCE CLIP AND FAX CLASSIFIED AD ORDER FOR	RW
To: Science Classified Advertising	
From:	
Phone: ( )	
Please publish attached ad in	
Next available issue  The issue(s) of	
(give date or dates)	
Send invoice to:	
Name	
Organization	
Address	
City State Zip	
Purchase Order Number	
Simply send completed form and ad text to be published (double-spaced without abbreviations, please) to:	
FAX NUMBER 202-682-0816	

# PATENT AGENT

Sanofi Diagnostics Pasteur, Inc., formerly Kallestad Diagnostics, Inc., is an international leader in the development and marketing of diagnostic testing of human diseases and allergies. Our research is focused on the molecular biology and immunology of blood viruses and other infectious agents, allergy, and autoimmune disease. To assist us in protecting the products of our research, we are seeking a Ph.D. in molecular biology, immunology, biochemistry or microbiology to act as Patent Agent with our dynamic, multi-national organization.

This high-profile position will require you to provide intellectual property services including the preparation of worldwide patent applications and the drafting of patentopinions. We will also rely on you to play an integral role in the preparation and evaluation of technology transfer agreements. Special consideration will be given to applicants with prior legal or patent experience.

In exchange for your expertise, you will receive an excellent salary and benefits package that includes companypaid medical/dental insurance coverage, relocation assistance and 401K plan. In our suburban Minneapolis location, you can also enjoy affordable housing, worldclass cultural and sporting events, superior schools and universities, and outstanding year-round recreational activities. For confidential consideration, please send your resume and salary requirements to: Sanofi Diagnostics Pasteur, Inc., 1000 Lake Hazeltine Drive, Chaska, MN 55318, Attn: Mary Moen/Human Resources.



Equal Opportunity/Affirmative Action Employer.

# PROTEIN BIOCHEMIST/ BIOPHYSICIST Ph.D.

The Department of Cancer Research at Merck Sharp & Dohme Research Laboratories is seeking a protein biochemist/biophysicist with experience in protein-protein and/or protein-DNA interactions to complement our multidisciplinary oncogene research program. The selected candidate will study the membrane or nucleus-localized protein complexes involved in the mitogenic signalling pathway with a view toward the rational design of anticancer therapeutics. A Ph.D. in Biochemistry, Biophysics or the equivalent with at least 2-3 years of appropriate postdoctoral experience is required.

Merck is the recognized world leader in Pharmaceutical Research. We offer an excellent environment and facilities to successfully handle exceptional scientific challenges.

Excellent salary and benefits programs accompany this position at our suburban Philadelphia research facility. Please send curriculum vitae with cover letter to: Personnel Manager D-17, Research Personnel WP42-2, Merck Sharp & Dohme Research Laboratories, West Point, PA 19486.

EEO/AA/VH/Employer



NORTH CAROLINA: RESEARCH ASSOCI-ATE. NIH-funded postdoctoral position (up to 3 years) to study transduction properties of airway receptors and their role in the control of breathing. Experience in nerve recording desirable. Strong background in respiration physiology or neuroscience essential. Send curriculum vitae to: Dr. O. P. Mathew, Department of Pediatrics, Section of Neonatology, East Carolina University School of Medicine, Greenville, NC 27858. East Carolina University is an Equal Opportunity/Affirmative Action Employer. Applicants must comply with the Immigration Reform and Control Act.

# **RESEARCH SCIENTIST**

Applications are invited for a highly motivated scientist at the Florida Hospital Cancer and Leukemia Research Center. Applicants must have a Ph.D. in biochemistry with emphasis in protein chemistry. Postdoctoral experience is preferred. Available immediately to purify and characterize recombinant ricin toxin molecules produced in *E. coli* and insect cells. Studies from this laboratory include *Mol. Cell. Biol.* 9, 415–420 (1989); *Mol. Cell. Biol.* 9, 5012–5021 (1989); *Mol. Cell. Biol.* 10, 6257–6263 (1990). Interested candidates are invited to send their curriculum vitae, bibliography, and three letters of recommendation to:

> Dr. Arthur Frankel, Director Florida Hospital Cancer and Leukemia Research Center 616 East Altamonte Drive, #100 Altamonte Springs, FL 32701 (Greater Orlando Area) Telephone: 407-339-1004

University of California, San Diego (UCSD). The Center for Energy and Combustion Research in the Department of Applied Mechanics and Engineering Sciences seeks qualified person to fill position of ASSIST-ANT RESEARCH ENGINEER in the field of combustion science/engineering. Perform experiments on counterflow spray dynamics and combustion and on solid propellant combustion, and develop theoretical analyses of these processes. Must have a Ph.D. in mechanical and/or aerospace engineering and background in the activities described above, including both theory and experiment, with knowledge of solid propellant combustion and of spray combustion. (Background may be gained during educational program.) Salary is based on University of California pay scales. Send curriculum vitae and names/addresses of at least three references by 15 July 1991 to: Dr. Forman Williams, AMES-0310, UCSD, La Jolla, CA 92093-0310. If not U.S. citizen, state immigration status. University of California is an Equal Opportunity/Affirmative Action Employer.

# **RESEARCH INVESTIGATOR**

Faculty position as research investigator available in research division at diabetes center affiliated with leading medical school to engage in immunological approachess to the study of diabetic retinal microvascular disease. Duties include: conducting research on the role of the immune system in diabetic retinopathy by designing experiments to demonstrate antibodies to retinal blood vessels using immunofluorescence and tissue culture techniques and conducting research on the role of endothelial cells and pericytes in diabetic retinopathy by immunodeletion experiments using monoclonal antibodies and to biochemically characterize antibody-defined glycolipid antigens using appropriate biochemical methods. Candidates must have a Ph.D. degree in biochemistry

Candidates must have a Ph.D. degree in biochemistry or immunology with a minimum of 3 years of postdoctoral experience in diabetes research. Candidates must have had pre- or postdoctoral training in immunology, biochemistry, or experimental pathology as well as a good working knowledge of monoclonal antibody production and methods of purification and characterization of tissue antigens (particularly glycosphingolipids). Must have proven ability to undertake independent research as evidenced by publications in recognized scientific journals, and successful grant history. Salary: \$40,000 per annum.

and successful grant history. Salary: \$40,000 per annum. Interested individuals should submit two copies of curriculum vitae and publication list with three letters of reference to: Massachusetts Department of Employment and Training, Special Programs, Hurley Building, 19 Staniford Street, Boston, MA 02114 and refer to Job Order #1498.

# **POSITIONS OPEN**

### **RESEARCH SCIENTIST**

Saint Francis Hospital and Medical Center, located in Hartford, Connecticut, is seeking candidates to join our NIH-supported bone biology laboratory to work on molecular and cellular biology of the bone. Candidates should have completed a doctorate degree and a postdoctoral fellowship with prior molecular and cell biology experience. Candidates will be eligible for an appointment at the University of Connecticut School of Medicine. Interested candidates should send a résumé and references to: Dr. Ernesto Canalis, Director, Department of Research, Saint Francis Hospital and Medical Center, 114 Woodland Street, Hartford, CT 06105. Equal Opportunity Employer.

# TOXICOLOGISTS

California Department of Food and Agriculture seeks staff toxicologists in its pesticide regulatory program. Incumbents will evaluate toxicology studies and/or conduct risk assessments. Positions exist for individuals with doctorate degrees in toxicology, pharmacology, or a closely related field with suitable experience in animal toxicology. Salary range begins at \$4618 per month (minimum, Ph.D. and 3 years of experience). Comprehensive benefits package. Continuous testing; oral exam required. Submit résumés to:

### Department of Food and Agriculture Examinations Unit 1220 N Street, Room 154 Sacramento, CA 95814

VETERINARY IMMUNOLOGIST. The Department of Veterinary Microbiology and Pathology at Washington State University (WSU) invites applications for a full-time tenure-track position in veterinary immunology. The position offers 50% time for research to develop independent and collaborative extramurally supported research programs in immunology and infectious diseases. In addition, the position has 35% time for teaching veterinary immunology to veterinary students and a commitment to progressive teaching is required. The remaining time is to coordinate clinical immunology consultation and service by departmental faculty. D.V.M. (or equivalent) and Ph.D. degrees are required. Certification by the American College of Veterinary Microbiologists is desired, and intention to pursue certification is required. Rank and salary will be commensurate with training and experience. Final screening will begin 1 August 1991, and will continue until the position is filled. The position is available from September 1991. In order to receive consideration for this position, applicants should submit curriculum vitae and names and addresses of three references to: Travis C. McGuire, Department of Veterinary Microbiology and Pathology, Washington State University, Pullman, WA 99164–7040, by 10 August 1991. WSU is an Equal Opportunity/Affirmative Action Educator and Employer. Members of ethnic minorities, women, Vietnam-era or disabled veterans, persons of disability, and/or persons between the ages of 40 through 70 are encouraged to apply.

**RESEARCH ASSOCIATE.** For university in central Ohio. Performs human cell cultures, purification of DNA and RNA from cells, analysis of DNA/RNA by gel electrophoresis, handles radioisotopes, records results. Constructs genomic DNA libraries using cosmid cloning techniques; amplifies DNA by polymerase chain reaction; performs Northern and Southern hybridizations; correlates between DNA changes in thyroid tumors and clinical data of patients; grows microbial cultures; performs pathological examination of thyroid specimens; performs radioimmunoassay. Analyzes data, writes research papers for publication, edits manuscripts, prepares grant applications. Presents work at national scientific meetings and serves on committees. No experience required in the duties described but applicants will qualify with the following: M.S. in biological or health science and at least 2 years of research experience utilizing cosmid cloning techniques for genomic DNA library construction. Of the 2 years at least 1 year of experience in a research hospital or other medical setting. In addition, one course in each medicine, pathology and histology. Experience may be gained before, during, or after degree. Forty hours per week, 8 a.m. to 5 p.m., Monday to Friday; salary: \$22,920 per year. *Must have proof of legal authority to work permanently in the United States*. Send résumé in duplicate (no calls) to: J. Davies, PO. Box 1618, Columbus, OH 43216.

# **POSITIONS OPEN**

TOXICOLOGIST PHARMACOLOGIST. To be supervisor and assistant director of a clinical drug analytic laboratory at Georgetown University Medical Center. Position carries faculty appointment at instructor or assistant professor level depending upon qualifications. Expertise in immunoassay, GC, GC/MS necessary. Georgetown University is an Affirmative Action/Equal Opportunity Employer. Please address résumés to: Stanley Cohan, M.D., Ph.D., Department of Neurology, Georgetown University Hospital, 3800 Reservoir Road, N.W., Washington, DC 20007.

BIOCHEMIST/CELL BIOLOGIST. Position is available to study inositol polyphosphate metabolism and function in relation to signal transduction in the Inositol Lipid Workgroup, Calcium Regulation Section, Laboratory of Cellular and Molecular Pharmacology. The research involves application of protein chemistry, enzymology and molecular biology to the function and expression of regulatory enzymes. Experience in signal transduction would be beneficial. Applicants should have a Ph.D. or equivalent in biochemistry or cell biology or a closely related field, proven ability to perform independent research, and 0 to 3 years of postdoctoral research expersionce. For more information, contact: Dr. Stephen Shears, 919-541-0793. Send curriculum vitae and three letters of reference to: Mr. Bruce Wiggins, NIEHS Personnel Office (HNV35), P.O. Box 12233, Research Triangle Park, NC 27709. NIH is an Equal Opportunity Employer.

# MEETINGS

THE HUMAN BEHAVIOR AND EVOLUTION SOCIETY THIRD ANNUAL MEETING 22 TO 25 AUGUST 1991 McMASTER UNIVERSITY HAMILTON, ONTARIO

The Human Behavior and Evolution Society fosters the exchange of research findings among scientists and scholars in all disciplines who are using evolutionary principles to better understand human behavior. Over 100 presentations are scheduled. For information, contact: Martin Daly, Department of Psychology, Mc-Master University, Hamilton, Ontario, Canada L8S 4K1. Telephone: 416-525-9140, ext. 3033. Computer mail: Daly@Mcmaster.ca.

# MARKETPLACE DNA SEQUENCING Fast. Accurate. Affordable. Definitive Nucleotide Sequence Subcloning, Mapping, *in vitro*Mutagenesis, Library Construction Complete Molecular Biology Services Amore 1-800-888-8804 1-512-445-7139 FAX Circle No. 215 on Readers' Service Card THE PROBLEM IS SOLVED! with SINGLASE " generate single-strand DNA from amplified DNA for unambiguous, artifact-free 500 bp

Sequencing runs. 800-248-7609 GOLD BIOTECHNOLOGY, INC 7166 Manchester Rd., St. Louis, MO 63143 Reader service number 205



Circle No. 8 on Readers' Service Card

SCIENCE, VOL. 252

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

# **Genetics Institute** -Developing a protein used to treat immune deficiencies is just one of our **significant medical** achievements.

Our products are breaking ground in the treatment of such life-threatening illnesses as cancer, hemophilia and severe anemia.

And that's only the beginning.

We have built one of the world's largest biotechnology manufacturing facilities in Andover, Massachusetts. This strategic move will give us full control over the research, development, and manufacture of our own products, and positions us perfectly to meet our ambitious goals for the future.

For experienced professionals who seek a fastpaced, exciting atmosphere where creativity is encouraged and rewarded, there is always room for achievement at Genetics Institute.

# MOLECULAR BIOLOGY STAFF SCIENTIST

We are seeking a Ph.D.-level Molecular Biologist to participate in the development and characterization of mammalian cell lines expressing heterologous recombinant proteins. The successful candidate will possess a fundamental understanding of all aspects of mammalian gene expression and a demonstrated record of achievement in molecular and cell biology. Extensive experience with molecular techniques is required, including quantitative hybridization methods, construction and screening of genomic and/or cDNA libraries, PCR and DNA sequencing. Experience in cell culture and the expression and characterization of proteins in mammalian cells is also desired. Candidates should have a Ph.D. plus 0-2 years of relevant postdoctoral experience.

# **RESEARCH ASSOCIATE**

A position is available within our Fermentation Development Lab for an entry level Master's Degree candidate or Bachelor's degreed individual with 1–3 years of industry experience. Ideal candidates will have a background in the isolation of proteins from E-coli and/or down-stream processing as well as a working knowledge of techniques used in traditional bench-top analysis such as SDS-Page and HPLC. Scale-up experience preferred.

# PHARMACEUTICAL DEVELOPMENT STAFF SCIENTISTS

Within the Pharmaceutical R&D Department, we specifically search for insights into the protein's 3-D conformation. Any changes in the conformation of the molecule may be related to an increase or decrease in the stability, solubility or efficacy of the molecule.

We are therefore, seeking Staff Scientists (Ph.D.) with experience in protein structure, function, or stabilization to take responsibility for the dosage form development of therapeutic proteins such as lymphokines, bone-growth proteins, and monoclonal antibodies. Candidates with a strong background in biochemistry or physical biochemistry are urged to apply. Applicants must have excellent communication skills and a strong publication record.

# **CELL BIOLOGIST**

We have a job opening for a Cell Biologist to join a multidisciplinary Mammalian Cell Culture Group consisting of Cell Biology, Molecular Biology and Biochemical Engineering Laboratories. The primary role of this individual will be to develop cell culture processes by establishing an enabling understanding of the cell physiology of recombinant mammalian cells. Direct experience in the use of techniques which would allow the biochemical and immunochemical evaluation of proteins made by recombinant cells is necessary. The ideal candidate will have a Ph.D. in a relevant biological science plus at least two years postdoctoral experience, or equivalent industrial/academic experience.

Qualified candidates, please send resume to Peter Lasky, Human Resources, Genetics Institute, Inc., One Burtt Road, Andover, MA 01810. An Equal Opportunity Employer.

# **Genetics Institute, Inc.**

# Quality Isn't The Difference Anymore.



Which enzyme is the one you typically use?<sup>+</sup>

At least not in deciding which enzymes to buy. As these gels indicate, biological enzyme quality has become an industry standard. Most product prices and selections are equal as well. That's why IBI and VWR are working hard to provide you with a product that does make a difference...Outstanding Service.

# Having The Best Distribution Makes A Difference.

You've probably heard about our partnership with VWR Scientific, one of the market's leading distributors. Now you can one-stop-shop for all your laboratory products and elimi-



You really can't tell, can you?

nate expensive and time-consuming sourcing and ordering paperwork.

# Having The Best Response Time Makes A Difference.

To provide immediate shipping and eliminate the time change between the East and West Coasts, VWR stocks IBI biologicals at three U.S. locations. With 250 representatives nationwide, you can count on personalized attention and timely response.

# Having The Best Guarantee Makes A Difference.

Our promise is simple. IBI enzymes perform to their stated specifications



Because product quality isn't really the difference anymore.

or you get a credit for twice the value of your purchased product.

# Your Satisfaction Makes A Difference.

We're taking service very seriously. After all, when product quality, price and selection are the same, getting the best service makes all the difference.

For additional information, please contact IBI Technical Resources at (800) 243-2555 or your local VWR Sales Office. Outside of the U.S., contact the IBI International Sales Department at (203) 786-5600 for the name of the distributor nearest you.



INTERNATIONAL BIOTECHNOLOGIES, INC. Subsidiary of Eastman Kodak Company P.O. Box 9558, New Haven, CT 06535 Distributed by VWR Scientific

+ Lane 1: Kpn I cut Adenovirus Type 2 DNA, 5 Units/µg DNA; Lane 2: ligated product; Lane 3: ligated product recut with 5 U Kpn I/µg DNA; Lane 4: overdigest, 30 U/µg DNA. If you would like to review the specifics of these assays or know which companies were involved, contact one of the numbers listed.

Circle No. 257 on Readers' Service Card