

Custom Microsequencing Service

CLONTECH Laboratories now offers custom protein and peptide microsequencing services. Any purified protein/peptide samples in low picomole range can be sent to CLONTECH for sequencing. CLONTECH uses a liquid-phase, covalent attachment process to sequence virtually any type of sample, including samples electroblotted onto Immobilon (PVDF) membranes. CLONTECH will return sequences and sequence documentation for 15 to 20 NH_2 -terminal residues 2 to 3 weeks after receipt of purified samples. CLONTECH Laboratories. Circle 486.

DNA Labeling and Synthesis Kit

The TAG-IT Kit is the first labeling method that amplifies DNA while labeling it. The kit synthesizes as much as 13 times the amount of starting template while incorporating radiolabeled deoxyribonucleotides to a specific activity of $0.75 (\pm 0.05) \times 10^9$ dpm/ μg . The kit can be initiated with as little as 1 ng of DNA. Templates of any size can be used, and there is no requirement for sequence information. It is also the first labeling kit to make use of Taq polymerase and thermal cycling. The TAG-IT reaction consists of repeated cycles of denaturation, primer annealing, and polymerization to synthesize DNA while incorporating a radioactive label in the product. BIOS Corporation. Circle 487.

Capillary Adapter Kit

The TKO 120, a new capillary adapter kit, holds a microcapillary tube in the light path, allowing fluorometric measurement of 10-, 50-, or 100- μl samples. The kit has been developed expressly for the TKO 100 Fluorometer, which has optical characteristics suitable for DNA quantitation and as-

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.



says based on the enzymatic cleavage of coumarin-labeled substrates. Samples can be recovered with only 10% dilution after measurement in microcapillary tubes. The same sample of DNA can be measured and then expelled from the microcapillary tube and be used for slot blotting or electrophoresis. Hoefer Scientific Instruments. Circle 488.

Long Ranger Sequencing Gel

Long Ranger is a DNA sequencing gel solution composed of a chemically modified acrylamide combined with a cross-linker that can be directly substituted for an acrylamide-bis stock solution. This gel can produce up to 30% more sequence information than equivalent percentage polyacrylamide gels. The gels have greater mechanical strength than polyacrylamide gels, reducing the loss of sequencing information from gel tearing and stretching. AT Biochem. Circle 489.

Sample Preparation Station

The Vortex Evaporator is suited for preparing samples for electrophoresis, high-performance liquid chromatography, thin-



layer and gas chromatography, and radioimmunoassay. The unit can heat or cool samples from ambient to 80°C, with agitation alone or in combination with evaporation in culture tubes, centrifuge tubes, or scintillation vials. A solid-state control regulates vortexing speed from 0 to 25 Hz. Teflon-coated aluminum sample blocks are available that accommodate sample containers from 12 to 28 mm in diameter and 15- to 20-ml volume. The cover provides a vacuum seal to the entire sample block and is available in thermoformed clear acrylic or polyethylene, with or without glass view port. Buchler Instruments. Circle 490.

Negative Controls for Immunofluorescence Staining

Serotec has launched a panel of negative isotypic controls for use with its extensive range of mouse monoclonal antibodies (MAbs) to human leukocytes. Purified MAbs of mouse immunoglobulin classes IgG1, IgG2a, IgG2b, and IgM are available conjugated to fluorescein. This panel is well suited for flow cytometry. Serotec. Circle 491.

Literature

Protein Purification Notes is a new 12-page publication for the protein chemist. It provides information on methods and instrumentation and technical articles on advances in protein isolation techniques. Waters Chromatography Division of Millipore. Circle 492.

1991 Electrophoresis Catalog has complete product information and prices for a wide range of products from precast polyacrylamide gels to stains and equipment. Integrated Separation Systems. Circle 493.

High Performance Detectors for Gas Chromatography presents a complete line of detection systems in an eight-page brochure. Tremetrics. Circle 494.

Life Science Products 1991 lists more than 2000 products in a variety of fields, with products indexed alphabetically and numerically by product code. Sections include molecular biology, protein labeling and detection, immunological reagents, biomedical research assays, and structural formulas. Amersham Corporation. Circle 495.

HALL 1000 Electrolytic Conductivity Detector is a four-page brochure with chromatograms that illustrate the detector's performance in water analysis applications and its sensitivity and selectivity in the halogen, sulfur, nitrosamine, and nitrogen mode. Tremetrics. Circle 496.

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* will edit and typeset ads according to *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.

POSITIONS OPEN

ANIMAL SCIENCE, ASSISTANT PROFESSOR. Animal physiology of reproduction. Animal and Range Sciences, New Mexico State University, Las Cruces, NM 88003-0003. Fifty percent research, fifty percent teaching. Reproduction in cattle. Tenure-track, 12-month position. Ph.D. degree in animal science with emphasis in reproductive physiology required. Reply to: **Dennis Hallford**, above address, by 30 September 1991. Position will remain open until filled. Include résumé, transcripts, list of publications, and four references. *Equal Opportunity/Affirmative Action Employer.*

MICROBIOLOGIST

Seek a tenure-track faculty member with preference given at the ASSISTANT PROFESSOR level. Will be expected to establish an independent, externally funded basic research program. Should have postdoctoral experience and demonstrated research capability. Research areas could include physiology/metabolism, nutrient cycling, ground water quality, and bioremediation. Substantial start-up funds available. Teaching in microbiology and research interaction with the Nebraska Water Center expected. Joint/split appointments possible. Send curriculum vitae, statement of research interests, and three letters of recommendation to: **Dr. Kenneth W. Nickerson**, Chair, Microbiology Search Committee, School of Biological Sciences, University of Nebraska-Lincoln, NE 68588-0118. Position open until 1 September 1991, but applications will be accepted until a suitable candidate is found. *Affirmative Action/Equal Opportunity Employer.*

RESEARCH ASSISTANT PROFESSOR CELLULAR ELECTROPHYSIOLOGIST

The Department of Pharmacology at the State University of New York (SUNY) Health Science Center at Syracuse is seeking an outstanding individual to join a multidisciplinary research group whose primary goal is to study the subcellular mechanisms of cell-to-cell communication and impulse propagation in the heart. Duties will include the teaching of cardiac electrophysiology to medical students, physical therapists, nurses, and graduate students and research as outlined above. Qualified candidates should have a doctorate degree in physiology, pharmacology, or biophysics, and at least 3 years of postdoctoral experience in electrophysiology research and/or teaching of electrophysiology, patch clamping, and membrane biophysics. The doctoral program should have included research and publications in electrophysiology. Send curriculum vitae, statement of research interests, and three letters of recommendation by 30 August 1991 to: **Dr. José Jalife**, Department of Pharmacology, SUNY Health Science Center at Syracuse, 766 Irving Avenue, Syracuse, NY 13210.

An Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSISTANT PROFESSOR. The Department of Physiology at Temple University School of Medicine invites applications for nontenure-track position at the level of research assistant professor. Ph.D. in physiology and 1 to 2 years of postdoctoral training required. Candidate must have laboratory experience in experimental physiology, protein biochemistry, and handling of radioactive materials. Contact: **Dr. Peter R. Lynch**, Chairman, Temple University School of Medicine, Department of Physiology, 3420 North Broad Street, Philadelphia, PA 19140. *An Equal Opportunity/Affirmative Action Employer.*

RESEARCH FACULTY POSITIONS SHOCK TRAUMA INSTITUTE ASSOCIATE PROFESSOR ASSISTANT PROFESSOR

The Department of Surgery and Physiology and the Loyola University Shock Trauma Institute invite applications for an associate professor and an assistant professor. Applicants' research should involve aspects of leukocyte cellular and molecular biology during traumatic, septic, or burn injury with preference given to expertise in cytokines, neutrophil function, and wound healing. Send curriculum vitae, a description of research interests, and three references to:

Richard L. Gamelli, M.D., Director
Loyola University Shock Trauma Institute
Building 54, Room 260
2160 South First Avenue
Maywood, IL 60153

An Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR SECTION OF GENETICS DUKE UNIVERSITY MEDICAL CENTER

The Section of Genetics at Duke University Medical Center invites applications for tenure-track, junior level faculty positions. Individuals utilizing genetic approaches to address problems in most any important area of biology will be considered. The Section of Genetics is a newly created academic unit that offers a cohesive and interactive research environment as well as an extremely attractive and generous package of research support. Applicants should forward curriculum vitae, a statement of research plans, and the names of three references to: **Dr. Joseph R. Nevins**, Section of Genetics, Duke University Medical Center, P.O. Box 3054, Durham, NC 27710. *Duke University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR, WILDLIFE MANAGEMENT—BIRDS. Nine-month tenure-track position. Ph.D. in wildlife management or a closely related field and expertise in management of bird populations required. Successful candidate will be expected to develop a research program in management and ecology of birds, including game species. Teaching expectations include ornithology, bird management, and general biology. Start date negotiable: 1 January to 15 August 1992. Send curriculum vitae, statement of research interests, three recent publications, and names, addresses and telephone numbers of three references to: **Search Committee**, Department of Biology, Montana State University, Bozeman, MT 59717-0346. For additional information call: 406-994-4549. Application review begins 1 October 1991. *Affirmative Action/Equal Opportunity Employer; Veteran preference.*

FACULTY POSITIONS DEPARTMENT OF BIOCHEMISTRY

The Department of Biochemistry at the University of Texas Health Science Center at San Antonio invites applications for several 12-month, state-funded, tenure-track faculty positions at the ASSISTANT OR ASSOCIATE PROFESSOR level. Candidates with research expertise in any area of contemporary biochemistry will be considered. Special consideration will be given to candidates with research interests in the following areas:

- **Biochemistry/Cell Biology:** receptors and signal transduction, ion channels, intracellular protein targeting, growth factors.
- **Molecular Biology/Genetics:** gene structure, function, and regulation including transcriptional, translational, and post-translational regulatory mechanisms.
- **Macromolecular Structure:** high resolution structure and dynamics of macromolecules in solution or the solid state.

Interested applicants should send curriculum vitae, a research prospectus, and the names of three references to:

Faculty Search Committee
Department of Biochemistry
The University of Texas
Health Science Center at San Antonio
7703 Floyd Curl Drive
San Antonio, TX 78284-7760

The deadline for applications is 15 September 1991. *An Affirmative Action/Equal Opportunity Employer.*

UNIVERSITY OF CALIFORNIA SAN FRANCISCO REPRODUCTIVE ENDOCRINOLOGIST OBSTETRICS, GYNECOLOGY AND REPRODUCTIVE SCIENCES PROFESSOR—TENURE TRACK

The Department of Obstetrics, Gynecology and Reproductive Sciences is seeking a full-time reproductive endocrinologist. Experienced investigator with demonstrated capability of mounting productive, independent research program. Ladder-rank position in Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California, San Francisco. Please respond by 1 October 1991. Please send curriculum vitae to: **Mary Dallman, Ph.D.**, Department of Physiology, University of California, San Francisco, CA 94143.

University of California is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

POSITIONS OPEN

CELL PHYSIOLOGISTS/ MOLECULAR BIOLOGISTS

The Department of Physiology and Biophysics and the Sealy Center for Molecular Sciences at the University of Texas Medical Branch (UTMB) at Galveston invite joint appointment applications for tenure-track positions at the **ASSISTANT, ASSOCIATE, and FULL PROFESSOR** levels. Candidates with interests in structure-function studies of membrane transport proteins are especially encouraged to apply. Candidates must have Ph.D. and/or M.D. degrees. Salaries and start-up funds are highly competitive. The department and the center offer a stimulating scientific environment and is deeply committed to high-quality research and teaching. Send complete curriculum vitae, including publications list, brief statement of future research plans, and names and addresses of three references to: **Dr. Michael L. Jennings, Head of Search Committee, Department of Physiology and Biophysics, University of Texas Medical Branch, Galveston, TX 77550. UTMB is an Equal Opportunity/Affirmative Action Employer, M/F/H/V. UTMB hires only individuals authorized to work in the United States.**

The Department of Neurology, University of California, Davis, is seeking Board-eligible or -certified neurologists to fill four full-time faculty positions. Two of the positions are in the **PROFESSOR** series and two are in the **CLINICAL PROFESSOR** series. Each position requires individuals with demonstrated competence in patient care and teaching of medical students and house staff. The professor series positions require demonstrated potential for developing a basic research program relevant to clinical neuroscience. The clinical professor series positions require a demonstrated potential for administering clinical programs and clinical investigation. Applicants must hold a current California license, or be eligible for licensure in the State of California. Individuals with appropriate experience and interests are encouraged to apply. Level of appointment will be commensurate with credentials. Interested candidates should send curriculum vitae, with names and addresses of three professional references to: **David P. Richman, M.D., Professor and Chair, Department of Neurology, University of California, Davis Medical Center, 2315 Stockton Boulevard, Room 5308, Sacramento, CA 95817. Applications will be accepted through 31 October 1991. The University of California is an Affirmative Action/Equal Opportunity Employer and encourages applications from all qualified women and ethnic minorities.**

CHAIR, MICROBIOLOGY AND IMMUNOLOGY. Temple University School of Medicine is searching for an outstanding scientist-teacher-administrator to serve as its new chairperson of Microbiology and Immunology Department. The Department of Microbiology and Immunology has a multidisciplinary teaching and research program, with an excellent faculty. The chair will provide leadership in achieving continuing excellence in teaching, research, and service. The individual will be responsible for recruiting new faculty and attracting external program funding. Applications must be received by 1 October 1991. Send letter of application, curriculum vitae, and names, addresses and telephone numbers of four references to: **Peter R. Lynch, Ph.D., Chairman, Microbiology and Immunology Search Committee, Temple University School of Medicine, Department of Physiology, 3420 North Broad Street, Philadelphia, PA 19140. Temple University is an Equal Opportunity/Affirmative Action Employer.**

PROJECT LEADER

To direct biochemical studies as part of a large collaborative preclinical and clinical research program with Memorial Sloan-Kettering Cancer Center, involving biochemical modulation in cancer therapy. Qualified candidates must have a Ph.D. in biochemistry, proven record of research accomplishments in the field of nucleic acid metabolism and experience in developing a research program. Our team approach to research requires the ability to communicate effectively. Office, laboratory space (1400 square feet), equipment, and technical support is provided. Substantial salary and fringe benefits. Candidates should submit a letter of application, curriculum vitae, list of publications, and names and addresses of three recent references to: **Daniel S. Martin, M.D., Cancer Research Department, Catholic Medical Center, 89-15 Woodhaven Boulevard, Woodhaven, NY 11421.**

POSITIONS OPEN

GRIFFIN ENDOWED CHAIR UNIVERSITY OF FLORIDA

The University of Florida is seeking an experienced scientist who will conduct an innovative program in whole-plant, cellular, or molecular biology that can lead to citrus improvement. Potential areas of study may include cold hardiness, water relations, gene expression, developmental biology, or any area of focus which could eventually contribute to the enhancement of citrus. The incumbent is expected to interact closely with existing faculty to enhance outstanding research, teaching, and scholarly activity at the University of Florida. A proven record for obtaining extramural support is necessary, as well as a demonstrated ability to attract and work well with graduate students and postdoctoral associates. Applications, including a résumé and names of five referees, should be submitted by 1 September 1991 to: **Dr. Karen E. Koch, Endowed Chair Search Committee, Fruit Crops Department, University of Florida, Gainesville, FL 32611. The University of Florida is an Equal Opportunity/Affirmative Action Employer.**

DIRECTOR OF MOLECULAR PATHOLOGY

The Department of Pathology of Tulane University School of Medicine in New Orleans invites applications for a faculty position to direct its research program in molecular pathology. This is a tenure-track position at the level of **ASSOCIATE PROFESSOR or FULL PROFESSOR**. The successful candidate, Ph.D. or M.D., will have an active research program in molecular biology and will take a major role in young faculty development and in the Interdisciplinary Graduate Program in Molecular and Cellular Biology. A very competitive start-up package will be offered by the department. Please submit curriculum vitae and names of three references by 30 November 1991, to: **Michael A. Gerber, M.D., Professor and Chairman, Department of Pathology, Tulane University School of Medicine, 1430 Tulane Avenue, New Orleans, LA 70112-2699. Tulane Medical Center is an Affirmative Action/Equal Opportunity Employer.**

DIRECTOR, CYTOGENETICS LABORATORY

Applications are invited to apply for an academic position to direct a diagnostic and research laboratory in cytogenetics as part of a group of cytogenetic/molecular genetics laboratories at Wayne State University and the Detroit Medical Center. Case load includes amniotic fluids, CVS, bloods, bone marrow and solid tissues. The director will be responsible for ensuring the quality, appropriateness, and timeliness of the laboratory services. To complement other members of the group, we are seeking an individual with research interest related to neonatal development or endocrinological problems, who has developed an independent research program. Active participation in the teaching of medical and graduate students and laboratory staff is expected. Academic rank and salary commensurate with experience. Candidates must have a Ph.D. or M.D. degree and be Board-certified in cytogenetics by the American Board of Medical Genetics. Interested applicants should submit curriculum vitae and references to: **Sandra R. Wolman, M.D., Department of Pathology, 9374 Scott Hall, Wayne State University School of Medicine, 540 East Canfield Avenue, Detroit, MI 48201. An Equal Opportunity/Affirmative Action Employer M/F.**

TECHNICAL DIRECTOR PROTEIN CHEMISTRY LABORATORY UNIVERSITY OF PENNSYLVANIA DEPARTMENT OF PATHOLOGY AND LABORATORY MEDICINE

The Department of Pathology and Laboratory Medicine of the University of Pennsylvania School of Medicine has an opening to fill the position of the technical director of the Protein Chemistry Laboratory. Applicants should have extensive experience in protein chemistry and familiarity with gas phase sequencers, peptide synthesizers and HPLC. Individuals with experience in mass spectroscopy will be given preference. Inquiries and curriculum vitae with three references should be sent to: **Dr. John D. Lambris, Protein Chemistry Laboratory, Department of Pathology and Laboratory Medicine, University of Pennsylvania, 410 Johnson Pavilion, Philadelphia, PA 19104-6079. Telephone: 215-662-6165; FAX: 215-573-2059. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

PROJECT DIRECTOR. Develop and analyze tests under Rasch model including test linking and item analysis; use statistical software to generate test reports; direct research projects on school effects which involve hierarchical linear modeling. Requires (1) a Ph.D. or ABD (All Ph.D. coursework completed But Dissertation) in education; (2) completion of graduate courses in each of the following: Psychometric Theory (including BIGSCALE & FACETS), Analysis of Qualitative Data (including GLIM), Hierarchical Linear Models; and completion of one research involving Rasch model test linking; (3) at least 3 months of experience in using statistical software to generate reports. Salary: \$30,000 per year, 40 hours per week, 8:30 a.m. to 5:00 p.m. *Must have proof of legal authority to work permanently in the United States.* Send résumé, transcript and experience letter to: **Illinois Department of Employment Security, 401 South State Street—3 South, Chicago, IL 60605, Attention: D. Rule, Reference #V-IL-2722-R. No calls. Employer-paid ad.**

ECOLOGISTS. Department of Biology, University of Puerto Rico. Two tenure-track positions in terrestrial or marine ecology are available in January 1992. Preferred areas of research are tropical ecosystems, communities, or populations. Candidates will be expected to teach undergraduate ecology, participate in the graduate program (M.S. and Ph.D.) and develop an active research program. Ph.D. required. Postdoctoral experience and knowledge of Spanish are desirable. We also have a National Science Foundation minority funded postdoctoral position for a Hispanic scientist. Applicants should submit curriculum vitae, statement of research interests, reprints, and three letters of reference by 30 August 1991 to: **Ned Fetcher, Department of Biology, University of Puerto Rico, Rio Piedras, PR 00931.**

ASSISTANT EDITOR

Challenging opening in publishing for creative person with strong background in the physical sciences, bachelor level or higher, to work on development of research-level books and journals in physics and engineering. Familiarity with personal computers is essential. Please send résumé and covering letter to: **Mr. Sean Pidgeon, IOP Publishing, 1411 Walnut Street, Suite 200, Philadelphia, PA 19102.**

MANAGER, TOXICOLOGY AND METABOLISM. Excellent career opportunity for an entrepreneurial Ph.D./DABT to lead professional group in safety assessment of pharmaceuticals (FDA) and chemicals (EPA). Full P&L responsibility including technical, financial and administrative aspects of the operation. Incumbent will establish future direction for technical business areas and facility's growth. Qualified candidates will possess an established track record in the management of a broad range of toxicology research programs as evidenced in publications. We offer the opportunity to play an integral part in the expansion of the facility's research capabilities in a state-of-the-art environment. Contact our executive search consultant: **Beryl F. Carlew, EFL Associates, 7101 College Boulevard, #550, Overland Park, KS 66210-1891, telephone: 913-451-8866.**

STAFF OFFICER

The Board on Environmental Studies and Toxicology of the National Research Council is seeking a staff officer for its Committee on Remedial Action Priorities for Hazardous Waste Sites. Responsibilities include assisting with direction of a committee of experts and providing intellectual overview of report. Requires an M.A./M.S. or equivalent in a physical science or engineering with a focus on environmental applications, at least 4 years of experience, preferably in pollution sources and control strategies, transformation, and fate of contaminants, regulatory processes and issues, and analysis of data used for decision-making. Position also requires effective communication skills. Please submit curriculum vitae and names of references to: **NRC/BEST, HA 354 (RW), 2101 Constitution Avenue, N.W., Washington, DC 20418. Equal Opportunity Employer.**

SCIENCE welcomes placement of line classified ads by FAX. Please include name and telephone number for our confirmation call when transmitting ad to:

FAX NUMBER: 202-682-0816

SCIENTISTS AND POSTDOCTORAL FELLOWS IN NEUROBIOLOGY AND PROTEIN CHEMISTRY

REGENERON PHARMACEUTICALS is making rapid progress in the basic understanding of neuronal growth factors and how these proteins can treat degenerative and traumatic neurological disorders.

Openings now exist in the Neurobiology Department for scientists and research associates with interests and skills in the following areas: (1) kinetics, pharmacology, distribution, and quantitative image analysis of protein and organic radioligand binding to tissue sections or homogenates; (2) *in vitro* and *in vivo* analysis of neurochemical changes following central and peripheral growth factor administration; and (3) the use of established tests and development of novel tests for measuring behavioral capacities after peripheral or central neural injury and neurotrophic factor administration.

Scientist and Postdoctoral positions require a Ph.D. and/or M.D. degree and extensive experience and publications in either of these three areas. Experience with animal models of central peripheral nerve disease or traumatic injury, PNS neurophysiology, or neuronal plasticity is also desirable for Scientist positions.

Openings also exist in the Cellular and Molecular Biology Department for scientists and research associates (B.S., M.S., Ph.D.) and postdoctoral fellows with training and/or interest in the chemical and biological characterization of growth factors and their receptors. Experience in protein purification, peptide synthesis, or in primary, secondary and tertiary structural analysis of proteins would be advantageous.

Regeneron's modern facility is located on an expansive wooded campus in Westchester County, 25 miles north of Manhattan. The highly collaborative and supportive Regeneron community offers considerable scientific and professional growth potential.

Please send your resume and a cover letter indicating the relevant position, the names of 3 or more references, and your immediate career goals to: **Ms. Carol Deaken, Bin IV (Neurobiology positions) or Bin CMB (Cellular and Molecular Biology Positions), REGENERON PHARMACEUTICALS, INC., 777 Old Saw Mill River Road Tarrytown, NY 10591-6707**
Equal opportunity employer.

REGENERON
Pharmaceuticals, Inc.

Postdoctoral Fellowships

Gastrointestinal Disorders Research

Two postdoctoral positions are available in this newly established research group at PARKE-DAVIS. The interests of the group are wide ranging, including research on: 1) mucosal injury and repair/maintenance processes, 2) the brain-gut axis, 3) motility disorders and 4) hepatic regeneration. The multidisciplinary nature of the programs encourages exploitation of a broad array of technologies ranging from molecular biology and peptide chemistry to cellular neurobiology, quantitative imaging and histopathology to *in vivo* pharmacology in a range of disease models including rodents and non-human primates and human diseases.

The role of growth factors in the cellular repair/maintenance process in erosive and inflammatory diseases of the GI tract is an area of major interest. Based on our observation that several peptide growth factors have unexpected stability in the gastrointestinal environment, we have been investigating the mechanism of growth factor mediated mucosal repair. The diversity of cell types in the GI tract and the multiplicity of actions of the growth factors presents both challenges and opportunities for understanding the biological activities of this class of regulatory factors.

Inflammatory bowel diseases are another interest. In addition to studying the role of growth factors, we are characterizing the histopathologic and endoscopic correlations of this family of diseases using several non-human primate and human disease models. Pathology-based research collaborations are active.

The brain-gut axis has long been appreciated as important. Several peptides (e.g. VIP, CCK, GRP), which are active in the gut, have been found to be important as either neurotransmitters or neuromodulators of the brain. Further, the role of these and other peptides in the CNS regulation of gastrointestinal functions is an area of increasing interest. A coordinated program with the CNS research group has been established to foster the understanding of the brain-gut interaction.

Candidates with interest in the highlighted programs or other areas of gastrointestinal physiology and pharmacology are invited to apply. Candidates should have Ph.D., M.D. or DVM degrees with strong interest and background in either gastrointestinal disease research or molecular/cellular physiology and pharmacology.

Send resume and list of references to **PARKE-DAVIS Pharmaceutical Research Division, Human Resources, Box JDM-908, 2800 Plymouth Road, Ann Arbor, MI 48105.** "Smoke-Free Work Environment"

"Equal Opportunity in Action"



PARKE-DAVIS

A DIVISION OF **WARNER
LAMBERT**

POSITIONS OPEN

FULL-TIME FACULTY POSITION HARVARD MEDICAL SCHOOL BETH ISRAEL HOSPITAL

Positions available for faculty members at various levels to join the new Molecular Medicine Unit at the Beth Israel Hospital and Harvard Medical School. Applications are invited from scientists having an M.D. and/or Ph.D. degree and postdoctoral experience in molecular biology. New faculty members will be expected to develop independent basic science research programs particularly in the areas of cell growth and differentiation, growth control, and oncogenes. The selected candidates will have the opportunity to work in new laboratories with state-of-the-art equipment designed for molecular and cellular biological research. Start-up funds and extensive long-term support is available for salaries, technical help, and supplies. The faculty members selected will be expected to spend approximately 90% of their time pursuing research activities. Clinical and/or teaching commitments are not required but can be arranged. Applicants should have sufficient recognition in their field in the form of publications to merit joint faculty appointments at Harvard Medical School. Please send curriculum vitae, a brief statement of research interests, reprints of significant recent work, and the names of three references to: **Benjamin G. Neel, M.D., Molecular Medicine Unit, Beth Israel Hospital, 330 Brookline Avenue, Boston, MA 02215. Beth Israel Hospital is an Affirmative Action/Equal Opportunity Employer.**

BIOCHEMISTRY/ MOLECULAR BIOLOGY TEXAS A&M UNIVERSITY

The Department of Biochemistry and Biophysics is seeking applications for **FACULTY POSITIONS**. These are 12-month, tenure-track positions to be filled by September 1992. Academic rank is open and dependent upon experience and qualifications. Outstanding individuals having research interests dealing with the molecular aspects of regulation, structure, mechanism, or function in microbial, animal, or plant systems are sought. In addition to research, participation in the department's undergraduate and graduate teaching programs will be required. A Ph.D. in either biochemistry or a related field, plus appropriate postdoctoral experience, is required.

Applicants should send curriculum vitae, list of publications, a brief description of current and future research directions, and have three letters of reference sent to: **Dr. Robert D. Wells, Department of Biochemistry and Biophysics, Texas A&M University, College Station, TX 77843-2128.**

The Texas A&M University System is an Affirmative Action/Equal Opportunity Employer.

ROYAL FREE HOSPITAL SCHOOL OF MEDICINE (RFHSM) UNIVERSITY OF LONDON LECTURER (NON-CLINICAL) IN HEMATOLOGY

A non-clinical lectureship is available in the Department of Haematology. The applicants will be encouraged to generate and pursue their own research program which will be expected to complement ongoing projects within the department. Applications would be particularly welcomed from cell/molecular biologists with an interest in oncogenesis and/or hemopoietic stem cells. The lecturer will also be expected to participate in undergraduate and postgraduate teaching within the department and the medical school. Interested candidates should contact: **Professor A. V. Hoffbrand (071-794-0500, extension 3258) or Dr. J. F. Hancock (extension 3479) to discuss the position before making a formal application.**

Salary from £12,690 to £23,426 plus £1,926 London Weighting according to experience.

Applications (eight copies of curriculum vitae with names and addresses of two referees) should be sent to: **The School Office, RFHSM, Rowland Hill Street, London NW3 2PF quoting reference HAE/L/196.**

NMR SPECTROSCOPISTS, PHYSIOLOGISTS OR BIOCHEMISTS—in vivo NMR spectroscopy **POSTDOCTORAL POSITIONS** available for studies of effects of antineoplastic agents and radiation on tumors and hearts. Send résumés: **Dr. Jerry D. Glickson, The Johns Hopkins School of Medicine, MRI 110, 600 North Wolfe, Baltimore, MD 21205.**

POSITIONS OPEN

The Markey Center in Growth Regulation at Vanderbilt University announces several new **FACULTY POSITIONS** affiliated with the Departments of Biochemistry, Cell Biology, and Medicine available beginning July 1991. The focus of this new center is an understanding of cellular growth processes at the molecular level. Initially, we have a particular interest in individuals with a molecular genetic approach toward understanding cellular signaling mechanisms and the processes of replication, transcription, and translation. Letters of application should be accompanied by curriculum vitae, a summary of research plans, and the names, addresses, and telephone numbers of at least three references, and may be addressed to: **Professor Stanley Cohen, Vanderbilt University School of Medicine, Department of Biochemistry, 607 Light Hall, Nashville, TN 37232-0146.**

A **TENURE-TRACK POSITION** with rank dependent upon qualifications is being offered by the Section of Gynecologic Oncology, Department of Obstetrics and Gynecology, at the University of Nebraska Medical Center. Candidates should have a Ph.D. in cell biology or biochemistry and have experience in cancer research at the molecular level. An interest in solid tumor physiology, growth factors, and tumor markers is desirable. A joint appointment with the Eppley Cancer Institute, an NCI-designated laboratory research center, is possible depending upon an applicant's qualifications. Interested applicants should submit curriculum vitae to: **David McIntosh, M.D., Section Head, Gynecologic Oncology, 600 South 42nd Street, Omaha, NE 68198-3255.** Applications will be accepted until the position is filled. *The University of Nebraska Medical Center is an Affirmative Action/Equal Opportunity Employer.*

TECHNICAL EDUCATION SPECIALISTS

Oncor, Inc. is a leading corporation in the research/development and support of DNA probes for molecular cytogenetics and DNA diagnostics. We are seeking several highly motivated individuals to build a diversified education team which will take our technology into clinical and research laboratories throughout the United States. Education specialists travel 2 to 4 days per week, giving seminars and workshops to interested groups. We require a B.S., M.S., or Ph.D. degree with at least 3 years of experience in the following fields: molecular cytogenetics education specialist; cytogenetics technologist, preferably in molecular cytogenetics, CT(ASCP), CLSp (CG) or equivalent is an asset; molecular biology education specialist; molecular biology laboratory technologist with training/supervisory experience; clinical education specialist; DNA diagnostic laboratory technologist, or MT(ASCP)SH with flow cytometry or gene rearrangement analysis experience. Please send résumé to: **Oncor, Inc., 209 Perry Parkway, Gaithersburg, MD 20877, Attention: PER062.**

Ph.D., Pharm.D.: Applications are invited for a combined **TEACHING AND RESEARCH POSITION**. Rank and salary commensurate with teaching and research experience. Applicants should send curriculum vitae, a statement of research interests/plans, and the names and addresses of three references to: **Robert E. Mancini, Ph.D., D.O., Department of Pharmacology, Toxicology and Experimental Therapeutics, New York College of Osteopathic Medicine, P.O. Box 170, Old Westbury, NY 11568. Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION DEVELOPMENTAL MOLECULAR NEUROBIOLOGY UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Position available immediately to study actions of NGF and related neurotrophins in CNS development. Molecular biologist will participate in studies to define NGF domains which bind and activate its receptor. Please send curriculum vitae, names of three references, and telephone numbers to:

**William C. Mobley, M.D., Ph.D.
Department of Neurology
School of Medicine
University of California
505 Parnassus Avenue
San Francisco, CA 94143-0114
Telephone: 415-476-7323**

POSITIONS OPEN

Gastroenterology. POSTDOCTORAL POSITION. Available immediately to study the molecular biology of intestinal transport. Background in cell biology and mammalian tissue culture desirable. Research involves molecular cloning and work with mammalian cell culture. Send curriculum vitae and names of three references to: **Alice Chow, M.D., Emory University School of Medicine, Department of Medicine, Division of Digestive Diseases, P.O. Drawer AL, Atlanta, GA 30322. Emory University is an Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS

Available immediately to study interferon-regulated, antiviral and cell growth inhibitory pathways. Areas include: (1) molecular analysis and expression of 2-5A-dependent RNase, and (2) inhibition of HIV replication by 2-5A- and dsRNA-dependent protein kinase systems. Send curriculum vitae and two letters of reference to: **Dr. Robert H. Silverman, Department of Cancer Biology, The Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195-5285.**

POSTDOCTORAL POSITIONS MOLECULAR BIOLOGY OF VASCULAR CELLS CARDIOLOGY DIVISION VANDERBILT UNIVERSITY SCHOOL OF MEDICINE

Postdoctoral positions are available to candidates with Ph.D. or M.D. degree to begin study 1 January 1992, and thereafter. Trainees will join already existing efforts to investigate mechanisms of transcriptional regulation in vascular endothelial and smooth muscle cells. In vitro and transgenic experiments are aimed at elucidating cis- and trans-acting elements involved in lineage determination and hormone responsiveness. Prior experience in molecular biology or transgenics would be helpful but is not essential. Excellent opportunities for future advancement to tenure-track faculty positions are available. Please send curriculum vitae and names of three references to: **Thomas Quertermous, M.D., Chief, Division of Cardiology, Vanderbilt University School of Medicine, Nashville, TN 37232-2170. Vanderbilt University is an Equal Opportunity Employer.**

A **POSTDOCTORAL POSITION** is available in a research group studying the mechanism and regulation of eukaryotic protein synthesis. Areas of investigation include the structure and function of polypeptides involved in the recognition and unwinding of capped mRNA, with emphasis on modulation of their activity by phosphorylation; structure and regulation of initiation factors genes; and the effects of oncogene expression on protein synthesis and cell growth. Salary is competitive and commensurate with experience. Send curriculum vitae and names of three references to: **Dr. Robert E. Rhoads, Department of Biochemistry, University of Kentucky College of Medicine, Lexington, KY 40536-0084. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITION available immediately in human papilloma virus molecular immunology. Primary responsibility is the development of T cell proliferative and IL-2 assays to HPV antigens in individuals with defined infectious status with various HPV subtypes. Additional responsibilities include preparation and expression of HPV antigens. Immunology experience is essential and molecular biology experience is desirable. Please contact: **Daniel P. Stites, M.D., University of California, San Francisco (UCSF), Box 0100, San Francisco, CA 94143. UCSF is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL POSITION. Available 1 September 1991 to study molecular structure of plant-cuticle polyesters. Requires Ph.D. in biochemistry or allied field, with experience in one or more of the following areas: biosynthesis, biodegradation, and isolation of plant materials; analytical methods (separations, mass spectrometry); modern spectroscopy (NMR in solution and solid state, FT-IR). Send curriculum vitae, two letters of reference, and copies of relevant publications to: **Dr. Ruth E. Stark, Department of Chemistry, City University of New York, The College of Staten Island, 50 Bay Street, Staten Island, NY 10301. Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION. Available to study the molecular biology of hormonal regulation of tissue-type plasminogen activator (tPA) and PA-inhibitor (PAI-1) gene expression in rat and human hepatocytes and hepatoma cells. Candidates must have experience in molecular biology. Send résumé, statement of research interests, and names of references to: **Dr. Thomas Gelehrter, Department of Human Genetics, 4708 MS II/Box 0618, University of Michigan Medical School, Ann Arbor, MI 48109-0618. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL POSITIONS IN MOLECULAR/MICROBIAL ENTOMOLOGY. Two postdoctoral or associate research scientist positions, depending upon qualifications of applicant, are available in the Department of Epidemiology and Public Health, Yale University School of Medicine. One position is to work with symbionts of medically important arthropods, with the ultimate objective of genetically transforming symbionts in order to modify the vector competence of their insect hosts. This individual will work closely with members of the Yale-MacArthur Center for Molecular Parasitology and should have some training in molecular biology and/or bacterial genetics. The second position is to study factors (genetic, biochemical, behavioral) which affect the vector competence of phlebotomine sandflies. A variety of sandfly species, maintained at the Yale Arbovirus Research Unit, are available for study. Interested persons should send a complete résumé, description of their research experience and interests, and names of three references to: **Dr. Robert B. Tesh, Department of Epidemiology and Public Health, Yale University School of Medicine, P.O. Box 3333, New Haven, CT 06510. Yale University is an Equal Opportunity/Affirmative Action Employer.**

TWO POSTDOCTORAL POSITIONS

Available immediately to participate in two NIH-funded projects on alterations of host defense induced by thermal injury. These projects will (i) extend studies [*J. Immunol.* 143, 2609 (1989)] to determine subcellular mechanisms responsible for neutrophil dysfunction (Dr. Ann Bjornson) and, (ii) characterize alterations of cytokine production and other functional responses of macrophages (Dr. Scott Somers). Our program offers the opportunity to apply fundamental knowledge in phagocyte biology to an area of clinical importance. Compensation includes stipend of \$28,000 to \$32,000 (dependent on experience) and fringe benefits. Send curriculum vitae, summary of research experience and names of three references to: **Drs. Bjornson or Somers, c/o: Division of Immunology, James N. Gamble Institute of Medical Research, 2141 Auburn Avenue, Cincinnati, OH 45219. An Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS

To join a multidisciplinary group consisting of 11 faculty interested in mechanisms of hemostasis, fibrinolysis, and thrombosis involving both basic research and clinical investigation. Areas of study from which to choose include (1) assembly, function, and regulation of supramolecular enzymatic complexes on both synthetic and physiological surfaces, (2) relationships between protein structure and function using molecular cloning, isolated natural and synthetic polypeptides, and immunological probes, (3) cell biology of hematopoiesis, (4) platelet intracellular signaling, and (5) diagnostic assay development. These positions will provide valuable training in an area of interest to the academic community, biotechnology, and the pharmaceutical industry. Send curriculum vitae, selected papers, and names of three references to: **Kenneth G. Mann, Ph.D., Professor and Chair Department of Biochemistry, College of Medicine, C401 Given Building, University of Vermont, Burlington, VT 05405-0068.**

POSTDOCTORAL POSITION

Available to study lipoprotein-mediated influences on synthesis of fibrinolytic proteins and expression of surface-localized fibrinolytic activity in cultured endothelial cell phenotypes. Ph.D. with experience in protein/receptor biochemistry, tissue culture, and/or molecular biology required. Send curriculum vitae and names of three references to: **Francois M. Booyse, Ph.D., Division of Cardiovascular Disease, University of Alabama at Birmingham (UAB), PAB 265, UAB Station, Birmingham, AL 35294-4400. UAB is an Equal Opportunity/Affirmative Action Employer.**

2 AUGUST 1991



The Immune Response
Corporation

DIRECTOR REGULATORY/CLINICAL AFFAIRS

The **IMMUNE RESPONSE CORPORATION** is a young, growth-oriented biotechnology company, conducting innovative research in viral vaccines and autoimmunity. Located in the suburban San Diego area, our new research and development center is located in one of the country's leading biotechnology communities.

IRC is searching for an individual to head its Regulatory Affairs Department, with responsibility for management of pre-clinical studies, clinical trials, and quality assurance functions. Candidates should have a Ph.D. or M.D. degree, completed research post-doctoral work, and a minimum of five years experience in an industrial environment, with proven success in regulatory and clinical affairs. Broad experience in the development of human therapeutic products is preferred, including manufacturing/quality control.

The **IMMUNE RESPONSE CORPORATION** offers excellent salary and benefits, and an opportunity to make a significant contribution in the stimulating environment of a young research-based organization.

Interested candidates should submit the curriculum vitae to:

**Human Resources
The Immune Response Corporation
5935 Darwin Court
Carlsbad, CA 92008
Ref: Director**

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Neuroscience Associate Pharmacologist

The Division of Pharmacology has an opportunity available for a scientist to study the metabolic and biochemical consequences of global and focal cerebral ischemia and other cerebrovascular diseases and apply key findings to drug discovery.

Candidates must have a Ph.D. in a biological science, **OR** a Master's degree in a biological science plus two years of experience in ischemic research, **OR** a Bachelor's degree plus four years of experience in ischemic research. Experience in one of the following areas is required: autoradiography, densitometric measurements and brain tissue sectioning, **OR** biochemical assays, **OR** ischemia models. Other factors to be considered include experience with histology, immunohistochemistry, metabolite assays, and various ischemia models.

Burroughs Wellcome Co. offers a stimulating and challenging work environment, with one of the best compensation and benefits packages in the industry, including comprehensive health and dental plans, life and disability coverage, tuition reimbursement, relocation benefits, pension and investment savings plan, fitness facilities, and others. You will also enjoy the outstanding variety of cultural, educational and recreational advantages that come with living and working in the Research Triangle Park area, one of the most desirable and fastest-growing regions of the country. Please send your resume, indicating position number in your cover letter, **by September 9, 1991, to: Burroughs Wellcome Co., Recruiting and Staffing, Pos. #62993-4, 3030 Cornwallis Road, Research Triangle Park, NC 27709.**

For information on other job opportunities with Burroughs Wellcome Co., call our Job Information Line at **(919) 248-8347.**



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POSITIONS OPEN

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 POSITION IN CANCER, MOLECULAR BIOLOGY. Unexpected opening for a postdoctoral fellowship position to study the regulation of signal transduction genes in leukemia. Experience in cell and molecular biology is required. Contact: S. Hanash, M.D., Ph.D., University of Michigan, Pediatric Hematology, R4451 Kresge I, Ann Arbor, MI 48109-0510 or FAX curriculum vitae to 313-763-2025. *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION—BIOCHEMISTRY

Position available on NIH-funded program concerned with the mechanism of growth hormone action. Applicants should have experience in molecular and cell biology, with emphasis on skills in protein biochemistry. Please send curriculum vitae and names of three references to:

Martin Sonenberg, M.D., Ph.D.
Memorial Sloan-Kettering Cancer Center
1275 York Avenue
New York, NY 10021

POSTDOCTORAL TRAINING IN CLINICAL CHEMISTRY. Position available 1 July 1992, for basic scientist (Ph.D.) or physician interested in a career as chemistry laboratory director in academic laboratory medicine. Our 2-year program provides practical experience in hospital chemistry laboratories and extends relevant basic scientific knowledge. *The University of Washington is an Equal Opportunity/Affirmative Action Employer.* Application deadline: 15 November 1991. Write to: Margaret Kenny, Ph.D., Co-director, Chemistry Postdoctoral Program, University of Washington Medical Center, SB-10, Seattle, WA 98195.

POSTDOCTORAL OR TECHNICAL POSITION. Investigates therapies for AIDS-related *Pneumocystis pneumonia*. Genetic, molecular genetic, and biochemical approaches using yeast model. Experience in yeast genetics or molecular biology preferred. Reply to: Chuck Staben, School of Biological Sciences, 101 Morgan Building, University of Kentucky, Lexington, KY 40506-0225. *An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW

PARASITOLOGIST/MICROSCOPIST needed to help study immunochemistry and fine structure of malarial parasites as soon as possible. Prefer experience with light and immunoelectron microscopy and immunocytochemistry. Send letter of application, résumé and three letters of recommendation to: Masamichi Aikawa, M.D., Institute of Pathology, Case Western Reserve University (CWRU), Cleveland, OH 44106. *CWRU is an Affirmative Action/Equal Opportunity Employer.*

SCIENCE

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POSITIONS OPEN

EXPERIMENTAL NEUROPATHOLOGY FELLOWSHIP is available for a postdoctoral (Ph.D.) or postresidency in neuropathology (M.D.) candidate in productive, well-equipped laboratory. Clinical material in degenerative, geriatric, and dementing disease area, especially Alzheimer, Parkinson's, etc. Relevant animal experiments. Morphometry, immunocytochemistry, confocal and electron microscopy. The position is available immediately. Salary is based on published University of California scales. Send curriculum vitae to: Dr. Robert Terry, Department of Neurosciences, 0624, University of California, San Diego (UCSD), 9500 Gilman Drive, La Jolla, CA 92093. *UCSD is an Equal Opportunity/Affirmative Action Employer.*

MARINE AND FRESHWATER ECOLOGY

Two positions available immediately for studies on biological invasions.

POSTDOCTORAL RESEARCH ASSOCIATE. Two-year position to undertake experimental and quantitative field studies on the dispersal mechanisms of the zebra mussel *Dreissena polymorpha* in North America. Project has support of part-time assistant. Ph.D. in marine or freshwater biology/ecology with experience in epifaunal invertebrates preferred; computer/statistics skills highly desirable. Research is based at NOAA's Great Lake Environmental Research Laboratory (GL-ERL) in Ann Arbor, Michigan.

RESEARCH ASSOCIATE. One-year (possibly longer) appointment to investigate the current extent of marine biological invasions now occurring in U.S. waters, focusing on plankton-bearing ballast water and other ship-transport mechanisms, and to identify potential control means. Fieldwork on Atlantic, Gulf, and Pacific coasts. Project has support of a full-time assistant. Ph.D. or M.S. in biological sciences or marine policy; if the latter, B.S. in biology. Experience in coordination/supervision of research projects; ability to work with a wide variety of people; database management skills useful.

Send letter, curriculum vitae, names of three references by 26 August 1991 to: Dr. James T. Carlton, Maritime Studies Program, Williams College—Mystic Seaport, Mystic, CT 06355-0990. FAX: 203-572-7281. Telephone: 203-536-2326. *Equal Opportunity Employer/Affirmative Action.*

CENTER FOR COASTAL PHYSICAL OCEANOGRAPHY POSTDOCTORAL RESEARCH ASSOCIATES

The Commonwealth Center for Coastal Physical Oceanography at Old Dominion University (ODU) supported by the Commonwealth of Virginia, has immediate openings for postdoctoral research associates to work on problems related to coastal physical oceanographic processes. The initial appointment will be for 1 year with a possible extension for a second year.

The successful candidate will work on projects that consider dynamics of flow on the continental shelf, which is broadly defined and may extend into the inner shelf or out to the continental slope. Dynamical studies based on analytical or numerical models are appropriate as would be analysis of historical data.

Applicants should send a résumé, the names of three references, and a statement of scientific interests to: Director, Center for Coastal Physical Oceanography, Old Dominion University, Norfolk, VA 23529-0276. Closing date is 16 August 1991.

Old Dominion University is an Equal Opportunity/Affirmative Action Employer and encourages women and minority applications. ODU requires compliance with the Immigration Reform and Control Act of 1986.

RESEARCH POSITION DEPARTMENT OF MEDICINE HARVARD MEDICAL SCHOOL

Position available for recent Ph.D. or person with equivalent training to join a multidisciplinary laboratory studying the control of blood cell differentiation. Hands-on experience with hybridoma techniques and cell culture required. Send résumé and names of three references to:

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

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE. Immediate opening to be involved in an NIH-funded project to study the molecular pathogenesis of lung cancer. Experience in carcinogen metabolism and some aspects of molecular biology is preferred. Familiarity with tissue culture and HPLC is a plus. Send curriculum vitae and names and addresses of three references to: Roger A. Coulombe, Jr., Ph.D., Associate Professor, Toxicology Program, Department of Veterinary Sciences, Utah State University (USU), Logan, UT 84322-4620. Telephone: 801-750-1600. *USU is an Affirmative Action/Equal Opportunity Employer.*

RESEARCH ASSISTANT. To manage the North Carolina State University (NCSU) Hybridoma Facility. This is a service/research facility with clients throughout the Research Triangle Park area, including three major universities. The manager will be responsible for producing mouse monoclonal antibodies on a fee-for-service basis and conducting research on the discovery of new fusion partner cell lines for commercial application in the production of canine, feline, bovine, and equine monoclonal antibodies. B.S. degree required, M.S. degree preferred. Send résumé and references to: Dr. Bruce Hammerberg, Director, NCSU FACS/Hybridoma Facility, College of Veterinary Medicine, NCSU, Raleigh, NC 27606. *An Affirmative Action/Equal Opportunity Employer.*

RESEARCH ASSOCIATE. To study self-incompatibility and pollination-induced responses in *Petunia*. Must have experience in techniques of molecular biology, protein purification, and receptor identification. Ph.D. in plant physiology or related area of plant biology. A minimum of 2 years of postdoctoral experience in plant reproductive biology is required. Salary range: \$22,000 to \$26,000 per year. Standard university benefits package. Send résumé and names of three references by 5 September 1991 to: Dr. Teh-hui Kao, 403 Althouse Laboratory, Pennsylvania State University, University Park, PA 16802. *Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

RESEARCH MICROBIOLOGIST. Two positions available at the Retrovirus Research Center, Veterans Administration Medical Center/University of Maryland, Baltimore, for Ph.D. or M.D. scientists with backgrounds in molecular virology or immunology. Salary and academic appointment commensurate with experience. Send curriculum vitae with name and address of three references to: Paul M. Hoffman, M.D., Director, Retrovirus Research Center, VA Medical Center, 3900 Loch Raven Building, Baltimore, MD 21218. *We are an Equal Opportunity Employer.*

ASSISTANT RESEARCH SCIENTIST

University of Michigan School of Medicine, Department of Internal Medicine, Division of Hematology/Oncology, is looking for an assistant research scientist, research investigator, or postdoctoral fellow, depending upon qualifications, to participate in ongoing studies on the cellular expression of plasma proteins. Professional background in peptide or protein chemistry, cell culture, or molecular biology required.

Please send curriculum vitae and names of three references to: Alvin H. Schmaier, M.D., University of Michigan, Department of Internal Medicine, Division of Hematology/Oncology, 100 Simpson Memorial Institute, 102 Observatory, Ann Arbor, MI 48109-0724.

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RESEARCH SCIENTIST. Research and develop pattern recognition, feature extraction, graphics, and text separation and segmentation techniques for multilingual OCR systems. Projects include system design, algorithm design, analysis, and coding system integration and testing. Requires a Ph.D. in computer science and 2 years of experience in AI/OCR/research and/or teaching, including all aspects of printed and handwritten OCR, image processing and computer vision; bilingual ability (read and write Chinese/English); proficient in Pascal, C, MSDOS, 286 and 386 assembler languages. Full time, 9:00 a.m. to 6:00 p.m.; \$47,000 per year. Job site and interview: Santa Clara, California. Send this ad and résumé to: Job number TC11239, P.O. Box 9560, Sacramento, CA 95823-0560 no later than 17 August 1991.



Professor of Environmental and Occupational Health

University of Pittsburgh

The Department of Environmental and Occupational Health in the University of Pittsburgh's Graduate School of Public Health is seeking a senior investigator with experience in medical biochemistry to fill the position of Full professor with tenure. The Department is actively involved in molecular toxicology, studying at the cellular and molecular level, the effects of environmental and workplace related exposures. To complement the already existing expertise in the Department, the incoming person should have ongoing programs in the field of environmental effects on cellular DNA and the biological consequences with regard to gene expression. The successful candidate will have a record of successfully attracting research funding and experience in directing center or training grants. He/she will be expected to be involved in teaching of graduate students and medical students as well as collaborating with members of the consortium of scientists involved in determining the molecular basis of chemical carcinogenesis.

The position is available September 1991. The salary is competitive. Closing date for receipt of applications is August 16, 1991. Applicants should submit curriculum vitae together with 3 letters of recommendation to: Meryl H. Karol, Ph.D., Chair, Search and Appointment Committee, Department of Environmental and Occupational Health, Graduate School of Public Health, University of Pittsburgh, 130 DeSoto Street, Pittsburgh, PA 15261.

THE UNIVERSITY OF PITTSBURGH IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER

National Institutes of Health • Public Health Service
Department of Health And Human Services

Chief, Laboratory of Molecular Genetics

The Intramural Research Program of the National Institute of Aging (NIA), Baltimore, Maryland invites nominations and applications for the position of Chief, Laboratory of Molecular Genetics. This is a Civil Service Position. Starting salary commensurate with qualifications and experience. Candidates may be eligible for Physicians' Comparability Allowance up to \$20,000 per year. Alternatively, candidates may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.

The Chief of the Laboratory of Molecular Genetics will be responsible for conducting and coordinating research on basic mechanisms of aging, on the genetic response of cells to damaging environmental agents, on factors involved in cellular senescence and proliferation, on age associated diseases and disabilities.

Applicants must have a Doctoral degree with a record of outstanding scientific accomplishment in the field of Molecular Genetics. In addition, applicants should possess qualifications that demonstrate competence in executive level management and leadership ability.

Further information may be obtained by contacting Ms. Karen Maben at (301) 550-1733. An Application for Federal Employment (SF-171) with a current curriculum vitae and bibliography should be submitted to: **Personnel Office Gerontology Research Center, National Institute of Aging, 4940 Eastern Avenue, Baltimore, Maryland 21224.**

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

DIRECTOR OF CYTOGENETICS LABORATORY

Roswell Park Cancer Institute (RPCI) is seeking an experienced Ph.D. or M.D. Cytogeneticist to direct its Cytogenetics Laboratory. RPCI is a 140 bed institution dedicated to the diagnosis and treatment of solid tumor and hematologic malignancies and is affiliated with the State University of New York at Buffalo.

Candidates should be certified by the American Board of Medical Genetics and hold, or be eligible for, a license as a Cytogenetic Laboratory Director in the State of New York. Salary and faculty ranking are commensurate with experience.

Send curriculum vitae to:

Clara D. Bloomfield, M.D.
Head, Department of Medicine
Roswell Park Cancer Institute
Elm & Carlton Streets
Buffalo, New York 14263



Roswell Park is an Equal Opportunity Affirmative Action Employer



UNIVERSITY OF CAPE TOWN

Chair of Plant Conservation

The University wishes to appoint a Professor of Plant Conservation whose experience and research interests are in the preservation, ecology or management of terrestrial plant communities in their natural environments, or in plant/animal interactions which may include the biocontrol of alien vegetation. The appointee will be required to devote particular attention to the conservation of the floral elements and vegetation in the south western Cape Province of South Africa, and to develop a research team in this field. The successful applicant would be expected to supervise post-graduate students and to do a limited amount of teaching.

This is an endowed Chair and part of the generous endowment provides recurrent funding to allow the incumbent to set up his/her research, to purchase equipment, or to make appointments.

A negotiable remuneration package includes attractive staff benefits such as non-contributory medical aid, a pension scheme and a housing subsidy in certain circumstances.

Further information may be obtained from SASTO, Suite 350, 4801 Massachusetts Avenue, NW Washington DC 20016.

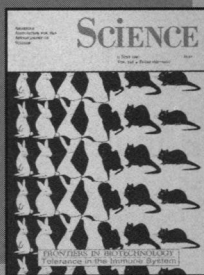
Applicants should submit a full curriculum vitae including a list of publications and the names and addresses of at least three referees, not later than 30 October 1991, to the Appointments Officer, University of Cape Town, Rondebosch 7700, Republic of South Africa; telephone: (21) 650-2192; fax: (21) 650-2138.

The policy and practice of the University of Cape Town are to oppose discrimination on grounds of gender, race or creed in any sphere of university life. UCT has consistently protested, and continues to protest, against apartheid laws and practices and is committed to working towards a just future for our country. Information on this is available on request.

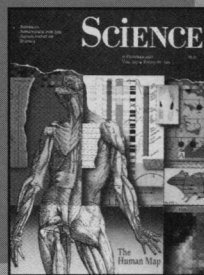
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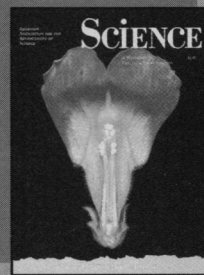
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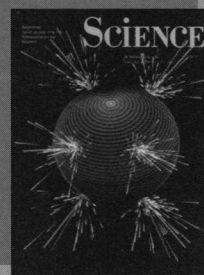
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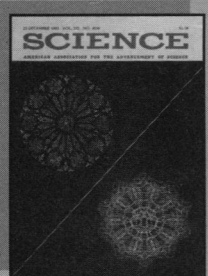
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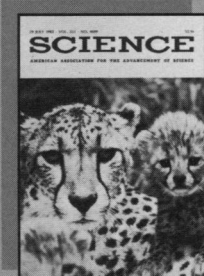
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P-06



P-05



P-03

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ECOLOGISTS/CONSERVATION BIOLOGISTS

The Wilderness Society, a national environmental organization, is filling three positions in ecology and conservation biology. All require strong technical writing skills. Competitive salaries and excellent benefits.

Senior Ecologist: Develop innovative programs, policies, and legislation to protect biological diversity on U.S. federal lands; produce studies on critical U.S. biodiversity issues. Ph.D. in ecology/conservation biology preferred; experience in policy analysis and formulation desirable.

Forest Ecologist: Shape Wilderness Society policies on management of federal, state, and private forest lands. Participate in program development of the new Bolle Center for Sustainable Forests. Ph.D. in forest ecology preferred; minimum of 6 years experience in policy analysis or research.

Southern Appalachians Ecologist: Participate as a member of a team developing a comprehensive plan to protect the biological diversity and wildlands of the Southern Appalachian Highlands region. Advanced degree in ecology or conservation biology required; knowledge of flora and fauna of southern Appalachians desirable. Position funded for two years.

Send resume and writing samples by September 6, 1991, to:

Dr. Mark Shaffer
The Wilderness Society
900 Seventeenth Street, N.W.
Washington, D.C. 20006-2596

The Wilderness Society is an equal opportunity employer.

Chair of Anatomy

Applications are invited for appointment to a Chair of Anatomy which will be vacant from 31 December 1992 following the retirement of Professor I. Darian-Smith.

The new professor will be expected to provide leadership in teaching and research in a branch of medical science relevant to the broad field of anatomy.

Salary: \$A67,812 per annum (currently subject to review) to which is added a superannuable pre-clinical salary differential of \$A6,037 per annum for a medically qualified appointee.

Further information about the position, including details of application procedure, conditions for outside work, superannuation, travel and removal expenses, housing assistance and conditions of appointment, is available from the Registrar. All correspondence (marked "PERSONAL AND CONFIDENTIAL") should be addressed to the Registrar, The University of Melbourne, Parkville, Victoria, 3052, Australia.

Telephone (613) 344 5003 Facsimile 344 6897.

Applications close on 30 September, 1991.

The Council reserves the right to make no appointment or to fill the Chair by invitation at any stage.

The University of Melbourne is an equal opportunity employer and has implemented a smoke free work-place policy.



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arm49653

RESEARCH TECHNICIAN

The Amoco Research Center in Naperville, Illinois is looking for qualified individuals to be considered for an opening in the Biotechnology Division of Amoco Technology Company as a RESEARCH TECHNICIAN. The position offers an excellent career opportunity.

The candidate's research area will emphasize basic and applied aspects of Molecular Biology, Microbiology, and Biochemistry. The position requires a Bachelor's or Master's degree in Biological Sciences. Experience in gene cloning, gene expression and biochemistry is desirable.

Amoco offers competitive salaries, a comprehensive benefits package and a congenial work environment. For immediate consideration, please forward your resume and salary history in complete confidence to:

Professional Recruiting Coordinator



AMOCO RESEARCH CENTER

P. O. Box 3011/Dept. RA
Naperville, IL 60566

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Principal Scientist/ Cellular Neurobiologist

Join Wyeth-Ayerst Research, one of the world's largest pharmaceutical research and development groups. Now is your opportunity to become an integral part of our fast-paced, innovative team at our research facility in Princeton, NJ.

The Central Nervous System Division is seeking a Principal Scientist to join our interdisciplinary drug discovery effort directed towards the identification of novel agents for the treatment of neurodegenerative diseases and schizophrenia. The primary responsibilities of this position will be to implement and run a cellular neurobiology laboratory with cellular biochemistry, second messenger biochemistry and cellular neurophysiology functions.

As a key part of CNS drug discovery research, this laboratory will interface with our extensive molecular biology resources. We seek a candidate with expertise in cell biochemistry, cell culture and the expression of cloned genes in cell lines, with the ability to study the biochemical pharmacology of the resultant neuroreceptors and other biomolecules in cell culture. Demonstrated excellence in these research areas, effective leadership skills, the ability to work as part of a team and a strong publication record are all essential requirements for this position.

The successful candidate will have a Ph.D. in Pharmacology, Biochemistry, Neuroscience or a related discipline with 5+ years of postdoctoral experience. Direct pharmacological experience with cell culture, cell biology/molecular biology and the biochemistry of second messengers is required, as is the motivation to publish the results of novel and innovative research activities.

We offer an excellent compensation and benefits package. Our research laboratory is just minutes away from Princeton University and convenient to many other cultural, educational and leisure activities. Forward resume and salary requirements to: Wyeth-Ayerst Research, Personnel Manager, Position #383, CN 8000, Princeton, NJ 08543-8000. An Equal Opportunity Employer, M/F/H/V responses encouraged. Principals only.

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AYERST**

**TRUDEAU INSTITUTE, INC.
BASIC RESEARCH SCIENTISTS**

As part of its ongoing recruiting program, the Trudeau Institute is interested in hiring one or two appropriately trained cellular or molecular immunologists at the level of assistant or associate professor. The successful applicants will be provided the resources to develop their own research programs emphasizing cellular or molecular immunology. However, it is hoped that they would also use the opportunity to investigate some of the well established *in vivo* models of immunity being studied here. Research at the Institute is directed at studying the immune response to infectious agents, cancers, and allografts at the physiological and cellular levels.

The Trudeau Institute is a free-standing, not-for-profit, basic research institute with modern facilities, up-to-date equipment, in-house animal production, efficient management and an international reputation for excellence. Current staff interests include: cancer immunology, transplantation immunology, immunity to infectious and parasitic diseases, regulation of immune responses, and the production and function of cytokines. Adequate start-up funding for new projects is available from Institute resources. Salaries and benefits are competitive, and working conditions are conducive to a productive research career.

Applications consisting of a curriculum vitae, the names and addresses of three references, and a brief description of research interests, should be addressed to:

Dr. Robert J. North, Director
Trudeau Institute, Inc.
P.O. Box 59
Saranac Lake, NY 12983

Clinical Cytogeneticist

Nichols Institute, a leader in the medical laboratory testing industry, has an opening for an ABMG certified or eligible Cytogeneticist with a M.D. or Ph.D. The candidate should have strong interest in clinical service; and experience in molecular cytogenetic techniques is desired.

We offer an excellent compensation, benefits package and a beautiful southern California location. Interested candidates please send C.V. to: **Hazel Larsen, Human Resources, Nichols Institute, 33608 Ortega Hwy., San Juan Capistrano, CA 92690-6130.** An equal opportunity employer.



Nichols Institute
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Senior Scientist

In this highly visible position you will act as our expert internal and external consultant, defining and executing programs in venous diseases and Hemodynamics physiology. You will also be responsible for translating the results of these experimental programs to meet business and new product design objectives. 5-10 years of experience in a Cardiovascular area, preferably in the study of venous diseases, and a PhD in Biomedical Engineering or Physiology required. A Master's combined with substantial experience in the area of venous diseases will be considered. Solid communication and presentation skills are essential.

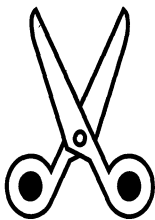
Research Associate Wound Care

You will work with a variety of internal groups to develop new product designs, test/manufacturability methods, product specifications, and clinical data/sales training documents. Because of our commitment to staying at the leading edge, it will also be essential that you stay abreast of the latest wound biology and wound management information and evaluate outside technologies for new product opportunities. A PhD in Chemistry/Bioengineering or equivalent in a wound care related science and at least 4 years experience in wound healing/management are required.

We offer a competitive salary, an excellent benefits package including medical/dental insurance, a matching savings investment plan, pension, and tuition reimbursement, as well as exceptional growth opportunities. Qualified candidates should forward their resume to Bob Simons, The Kendall Healthcare Products Company, 15 Hampshire Street, Mansfield, MA 02048. An equal opportunity employer.

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DEPUTY DIRECTOR AMES LABORATORY

The Ames Laboratory invites applications and nominations for the position of Deputy Director. The Ames Laboratory is a national laboratory of the Department of Energy (DOE), is dedicated to research in fundamental and applied science and engineering related to the nation's current and future energy concerns, and is operated for DOE by Iowa State University (ISU). The Deputy Director has primary responsibility for new initiatives, the Office of Information, the Office of Internal Auditing, the scientific computing group, and all scientific program reviews. The Deputy Director will often represent the Laboratory at local, state and national forums and will act as Laboratory Director in the Director's absence.

The successful candidate will hold a Ph.D. in physical science or engineering, have a scientific record commensurate with faculty status in a related academic department of ISU, have significant experience in science administration and have a strong working knowledge of the Department of Energy.

Salary is competitive and commensurate with experience. Applications and nominations should be sent to: Dr. Tom Barton, Director, Ames Laboratory, 109 Office and Laboratory Building, Iowa State University, Ames, IA 50011. Ames Laboratory, Iowa State University is an Equal Opportunity/Affirmative Action Employer. Minorities and women are especially encouraged to apply.

POSTDOCTORAL POSITIONS

Protein Crystallography/ Protein Engineering

Two postdoctoral positions will be available at Los Alamos National Laboratory in February, 1992 for a project to determine the structures of gene V protein mutants with internal amino acid substitutions. A state-of-the-art X-ray facility with an area detector, computing and graphics facilities will be available. Candidates should have experience in protein structure determination by X-ray crystallographic methods. Experience with bacterial expression systems, site-directed mutagenesis, protein purification, and molecular modelling is helpful. For further information on the research project, contact Dr. Thomas Terwilliger, (312) 702-1346.

Postdoctoral appointments are for 2 years, renewable at the end of each year, with the possibility of renewal for 3rd year, and starting salaries range from \$36,666 to \$38,619 per year. Appointees receive employee benefits, including incoming travel and moving expenses.

To formally apply, please obtain an application form from Mary Anne With at (505) 667-0872, and have the application, a resume, undergraduate and graduate transcripts, and three external letters of reference sent to: Mary Anne With (MS P280), Human Resources Development Division PD-91-092, Los Alamos National Laboratory, Los Alamos, New Mexico 87545. Affirmative Action/Equal Opportunity Employer. Must be able to obtain a Department of Energy Security Clearance.

Los Alamos
NATIONAL LABORATORY

Director Mammalian Cell Expression

Chiron Corporation, a recognized leader in biotechnology and molecular biology is seeking a highly motivated individual to lead a group in the area of mammalian cell expression. The position requires an Ph.D. and more than 5 years' experience in the field. An ability to perform independent research must be demonstrated by an excellent record of publication in peer reviewed journals. The successful candidate will establish a group to develop novel methods for the expression of eukaryotic proteins in various cell types, with particular emphasis on high level expression, secretion and posttranslational modification. An ability to interact with multidisciplinary groups working toward the production of clinically important products is essential.

Chiron Corporation, located in the San Francisco Bay Area, offers a stimulating and challenging environment, a competitive compensation package and opportunities for professional advancement. Candidates please send C.V., including the names of references, to: Chiron Corporation, Human Resources Dept.: MB-016/2, 4560 Horton St., Emeryville, CA 94608.



CHIRON

Excellent Career Opportunities In Our Expanding Virology Department

Bristol-Myers Squibb Pharmaceutical Research Institute is continuing to expand our extensive research efforts in the area of antivirals. Excellent career opportunities currently exist for Research Investigators and Associate Research Scientists who join our Virology Department in our new Forrestal Greens research facility.

Research Investigators: Candidates should have a Ph.D. in Molecular Biology, Biochemistry, or Virology, and previous post-doctoral experience. Successful candidates are expected to conduct independent research studies to define unique viral targets for antiviral intervention and collaborate with other research groups in the design and development of novel antiviral agents.

Associate Research Scientists: Candidates should have a BS/MS degree and previous experience working in a research laboratory. Prior training in the area of Molecular Biology, Biochemistry, Hybridomas, or Virology is highly desirable.

Please forward your resume to: Human Resources Department 229, P.O. Box 4000, Princeton, NJ 08543-4000. An equal opportunity employer.



Bristol-Myers Squibb Company

POSITIONS OPEN

JOINT INSTITUTE FOR LABORATORY ASTROPHYSICS (JILA)

JILA [operated jointly by the U.S. National Institute of Standards and Technology (formerly the National Bureau of Standards) and the University of Colorado] is devoted to research, study, and teaching in atomic and molecular physics, chemical physics, laser physics, astrophysics, precision measurements, geophysical measurement, and related areas. Applications are invited for two programs:

- **RESEARCH ASSOCIATESHIPS** for advanced research by recent Ph.D.'s. Applications are accepted and considered anytime throughout the year.

- **VISITING FELLOWSHIPS** for advanced research by senior scientists. Deadline for completed applications is 1 November 1991.

Further information can be obtained from: **The Secretary, Visiting Scientists Program, JILA, Box 440, University of Colorado, Boulder, CO 80309-0440.**

The University of Colorado at Boulder has a strong institutional commitment to the principle of diversity. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities, and disabled individuals.

RESEARCH ASSOCIATE. To perform basic research studying the human tumor antigen-specific B lymphocytes in SCID mice. Specific tasks include preparation and characterization of lymphocyte subpopulations in SCID mice, assay of lymphocyte cultures and grafts for production of human-specific antibody, production of antibody specific for tumor antigens, and analyses of antibody specificity. Requires a Ph.D. in immunology/pathology. Hours: 9:00 a.m. to 5:00 p.m., 40 hours per week. Salary: \$29,220 per year. Contact: **Sandra Starnes, Alabama State Employment Service, 3440 Third Avenue South, Birmingham, AL 35222. Re: Job Order #AL0626347. Affirmative Action/Equal Employment Opportunity.**

RESEARCH ASSOCIATE. Position available immediately to study in small laboratory animals: perturbations of immune responses in the lung due to exposure to environmental air pollution; the consequences of such perturbations in terms of susceptibility to infectious and allergic diseases and underlying mechanisms; and the development of animal models to assess allergenic effects. Experience in inhalation toxicology with background in bacteriology and immunology preferred. Doctoral degree in microbiology, immunology or toxicology and 2 to 3 years of postdoctoral experience needed. To apply send curriculum vitae and three references by 23 August 1991 to: **Philip A. Bromberg, M.D., Center for Environmental Medicine and Lung Biology, University of North Carolina at Chapel Hill, CB #7310, Medical Research Building C, Chapel Hill, NC 27599-7310. Affirmative Action/Equal Opportunity Employer.**

BIOMEDICAL RESEARCH AND DEVELOPMENT SCIENTIST

Experienced research development scientist sought to join growing team responsible for developing novel immunological and molecular biological diagnostic assay systems. Candidates should have Ph.D. or equivalent training in biochemistry/molecular biology with industrial experience in development of in vitro diagnostic assays. Immunodiagnosics is a biotechnology company offering excellent opportunities for advancement and career development. Interested candidates send résumé to: **Director of Personnel, Immunodiagnosics, Inc., 3865 North Business Center Drive, Tucson, AZ 85705.**

RESEARCH SCIENTIST. Center for Basic Research in Digestive Diseases, Mayo Clinic. To study the molecular basis of alcohol-induced liver injury with focus on the actin-myosin cytoskeleton and its role in endocytosis/secretion of proteins in the hepatocyte. Applicant must have M.D. or Ph.D., 3 to 4 years of postdoctoral experience in cytoskeletal biochemistry and/or molecular biology and a strong understanding of hepatic physiology. Additional expertise in immunocytochemistry, eukaryotic cell culture and recombinant DNA techniques are required. Send résumé and three references to: **Dr. N. LaRusso, Chair of Gastroenterology, Guggenheim 17, Mayo Clinic, Rochester, MN 55905. Mayo Foundation is an Affirmative Action and Equal Opportunity Employer and Educator.**

POSITIONS OPEN

RESEARCH SCIENTIST required for program designed to elucidate the pathogenesis of hepatocellular carcinoma (HCC) in hepatitis B virus (HBV) infection and in HBV transgenic mice. Training and experience in clinical hepatology, liver pathology, and molecular biology is required. Specific requirements include clinical and pathologic diagnosis of chronic liver disease and HCC; transgenic mouse production and analysis capabilities; genomic cloning, cDNA cloning, and sequencing; polymerase chain reaction; vector construction and in situ hybridization. M.D. with expertise in molecular biology and/or hepatology or Ph.D. in molecular biology with expertise in clinical aspects of hepatology and liver pathology especially as related to hepatitis B virology. Salary negotiable in accordance with NIH guidelines. Direct inquiries to: **L. Quinsaat, c/o The Scripps Research Institute, 10666 North Torrey Pines Road, Box B, La Jolla, CA 92037.**



**Agricultural
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RESEARCH GENETICIST (BARLEY) CEREAL CROPS IMPROVEMENT UNIT BOZEMAN, MONTANA

ARS seeks a research geneticist who will be responsible for basic research on fundamental problems in genetics, biochemistry, molecular biology, and/or transformation technology in barley. Salary will be commensurate with experience; \$37,294 to \$62,888 per annum. For information on the position, call: **Dr. A. L. Scharen, 406-994-5158.** For forms/application procedures, call: **Julia A. Murchison, 301-344-3138.** Closing date, 23 August 1991. *An Equal Opportunity Employer. Women and minorities are encouraged to apply.*

RESEARCH SCIENTIST MOLECULAR BIOLOGY

The HLA Laboratory of the American Red Cross at the Holland Laboratories in Rockville, Maryland, has an immediate opening for a molecular biologist experienced in allele-specific oligonucleotide probes to implement and conduct a research project on sequence-specific oligonucleotide hybridization. Candidates must have a Ph.D. with a minimum of 2 years of related experience. This position offers superior compensation and potential. Applicants should forward curriculum vitae and three references to:

**John Lee, Ph.D., Head
HLA Laboratory**

**American Red Cross Holland Laboratories
15601 Crabbs Branch Way
Rockville, MD 20855**

INFORMATION SCIENTIST

Expanding scientific consulting service seeks biomedical information scientists with experience in chemical carcinogenesis, toxicology, health hazard assessment, managing and editing chemical, biological and clinical information, editing chemical structures and developing scientific publications. An M.S. or Ph.D. degree in a relevant discipline, and analytical and technical writing skills required. Responsibilities include literature surveillance and evaluation, and preparation of reports, digests and bibliographies. Applications with curriculum vitae and salary requirements to: **Information Ventures, Inc., 1500 Locust Street, Suite 3216, Philadelphia, PA 19102. An Equal Opportunity/Affirmative Action Employer.**

MARINE GEOCHEMIST

Southern California Coastal Water Research Project (SCCWRP) is seeking a marine geochemist with experience in trace organic analytical chemistry to study the transport and fate of contaminants in the coastal marine ecosystem off southern California. The successful candidate will have an established publication record and previous extramural funding in marine environmental chemistry. The position involves supervision and management of a small chemistry group, development of research plans and grant proposals, and publication of results in peer-reviewed journals. Experience with GC/MS, GC, HPLC, and related techniques required. Send letter of application and curriculum vitae to: **Personnel Department, Southern California Coastal Water Research Project, 646 West Pacific Coast Highway, Long Beach, CA 90806. SCCWRP is an Equal Opportunity Employer.**

POSITIONS OPEN

Mayo Clinic is seeking **SCIENTIST TO HEAD THE SECTION OF HEALTH SERVICES EVALUATION.** Applicants should have strong methodologic training with evidence of research productivity in terms of peer-reviewed publications and success in competing for research funding. An extramurally supported research program may focus on any aspect of health services evaluation, although opportunities in the Mayo environment may be greatest in technology assessment. The individual selected will be expected to develop and coordinate a cohesive working group of investigators, clinicians, and research fellows and to serve as a role model and catalyst to encourage interested clinicians to become actively involved in health services research. Ample resources are available to support efforts to develop a high caliber research unit and specific research programs. Opportunities derive from an extensive clinical database at Mayo and include the capability for population-based research among residents of Olmsted County, Minnesota, through the Rochester Epidemiology Project. Collaboration is available and encouraged with the closely integrated Sections of Biostatistics, Clinical Epidemiology, and Medical Information Resources. Academic rank will be commensurate with the candidate's qualifications and experience. There are no required patient care responsibilities, but practice opportunities are available. Salary and benefits are most competitive. Qualified applicants should submit curriculum vitae to: **Robert G. Tancredi, M.D., Mayo Clinic, Rochester, MN 55905. Telephone: 507-284-8294. Mayo Foundation is an Affirmative Action and Equal Opportunity Educator and Employer.**

ASSOCIATE AND SENIOR ASSOCIATE LAND AND WILDLIFE

World Wildlife Fund and The Conservation Foundation (WWF) is the largest international organization working worldwide for the conservation of nature. The Land and Wildlife Program works nationally and internationally to promote efforts to protect important natural areas and wildlife populations.

WWF seeks two professionals to work with an interdisciplinary team to develop and carry out projects including conservation of National Parks and other protected areas and development on adjacent lands; development of comprehensive wetlands strategies; improvement of wildlife laws; and development of border strategies. The Land and Wildlife Program works with Congress, federal agencies, international institutions and regional citizen groups in its efforts to protect natural areas and wildlife populations.

Qualified applicants will possess an advanced degree in economics, resource management, wildlife conservation, or related fields and have several years of experience. Experience in policy research and advocacy is desired. Positions are based at WWF's headquarters in Washington, D.C.

Send cover letter and résumé to: **WWF, Human Resources Department—120F, 1250 24th Street, N.W., Washington, DC 20037.** Competitive salary and benefits appropriate to the U.S. nonprofit sector. *Equal Employment Opportunity/Affirmative Action.*

ASSISTANT/ASSOCIATE RESEARCH MOLECULAR BIOLOGIST

Program in transplant immunology is offering a position for a molecular biologist/molecular immunologist. Position involves studies of HLA gene regulation, DNA binding proteins, and HLA allele definition utilizing molecular approaches to gain a better understanding of antigen presentation and tolerance induction. Candidates should have Ph.D. degree with at least 2 years of postdoctoral training. Salary range: \$41,600 to \$64,000 depending on experience and qualifications.

Send curriculum vitae and references to: **Marvin R. Garovoy M.D., University of California, San Francisco (UCSF), 520 Health Sciences East, Third and Parnassus Avenue, San Francisco, CA 94143-0508.**

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Scientist

You will produce, characterize and apply monoclonal antibodies to support therapeutic proteins in Research, Development and Marketed Products. The major areas of exploration include endocrine hormones, cytokines and cellular receptors. This requires a PhD in Immunology, Biochemistry or Molecular Biology, at least two years of related experience and skill in mammalian cell culture, immunochimistry and protein chemistry. A working knowledge of molecular biology techniques is desirable. Dept. NS/BF.

Postdoctoral Researcher

We are seeking a highly motivated individual with a PhD or equivalent in the area of receptor biology or immunoglobulin gene molecular biology. The hybridoma group at Genentech is looking for a Postdoc to assist in establishing molecular biology approaches to characterizing the epitope mapping and antibody production. Of particular interest is the structure/function of the protooncogene receptor p185HER2, which is overexpressed in several aggressive adenocarcinomas. Dept. YS/BF.

Our company offers an extensive benefits package which includes child care facilities, free health club membership, an employee stock purchase plan and fully paid medical/dental/vision coverage. For immediate consideration, please send your resume, indicating dept of interest, to Nancy Symonds, Genentech, Inc., 460 Point San Bruno Blvd., South San Francisco, CA 94080. We promote and actively support affirmative action and equal opportunity employment.

Genentech, Inc.

BIOGEN

With quarterly revenues of \$18 million plus, a 28% increase over last year, Biogen reported first quarter '91 net income of \$.05 per share, up from \$.01 a year ago. We are well on our way to achieving our strategic goal of building a research-based fully operational biopharmaceutical company.

Sr. Process Scientist Protein Chemistry

You will be responsible for development of downstream purification processes leading to production of therapeutic protein products. The successful candidate will lead a team of protein purification specialists working in a multidisciplinary department of Process Development scientists and engineers. A PhD in Biochemistry, Chemistry, Immunology or related field, with hands-on experience in protein purification/characterization, and 2-5 years in related post-doctoral research required. 5 plus years' industrial experience in process development, technology-transfer to production and GMPs are musts.

Process Associates Cell Biology

You will investigate and evaluate mammalian cell lines with respect to growth and productivity as well as develop and maintain bioassays in support of process development activities. Candidates should have a BS in Biology with emphasis in Cell, Molecular, or Microbiology. 1-2 years' experience in cell culture techniques is desirable.

Biochemical Engineering

You will assist in the development of mammalian cell culture processes suitable for scale-up in a commercial-scale cGMP environment. Candidates should have a BS in Biochemical/ Chemical Engineering or Biology and 1-2 years' working in media development. Experience with mammalian cell culture bioreactors is highly desirable.

Our compensation and benefits package is one of the best in the industry, and is designed to attract and retain the finest talent available.

To apply for these immediate openings, send your resume to Biogen, Inc., Ref. SM0802, 14 Cambridge Center, Cambridge, MA 02142. Biogen is an Equal Opportunity Employer.



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POSITIONS OPEN

SYSTEMATIC ARACHNOLOGIST

The Department of Entomology of the California Academy of Sciences seeks an **ASSISTANT CURATOR**, appointment to commence 1 July 1992. Candidates must have demonstrated excellence in collection-based, organismal research in systematic arachnology (excluding Acarina) employing modern phylogenetic techniques. Ph.D. required. The successful candidate will be expected to participate in the Academy's exhibit and educational activities, including appropriate areas such as conservation biology and biodiversity, and share departmental administrative duties. Provide curriculum vitae and names of three references by 16 August 1991 to:

Dr. Terrence M. Gosliner, Director of Research
California Academy of Sciences
Golden Gate Park
San Francisco, CA 94118

The California Academy of Sciences is an Equal Opportunity Employer.

ENGINEERING AND ENVIRONMENTAL POLICY

The National Academy of Engineering (NAE) is seeking a **PROGRAM OFFICER** to handle policy-oriented projects related to technology and environment. Responsibilities include development and management of technical and public policy studies, writing or approving background reports, and assisting in administration and budgeting. Requires Ph.D. or equivalent in engineering, economics, public policy or related discipline (or M.S./M.A. with 4 years of experience) and excellent communication skills. Knowledge of energy industries, domestic and global environmental issues related to goods production and consumption, and engineering research and practice in industry desirable. Experience in technology-oriented policy analysis or private sector policy and planning work also desirable. Please send résumé in confidence to: NAE, NAS-055-DR, 2101 Constitution Avenue, N.W., Washington, DC 20418. *Equal Opportunity Employer.*

INHALATION ENGINEER/CHEMIST

A research engineering/chemistry position is available with the inhalation exposure group at our Toxic Hazards Research Unit in Dayton, Ohio. The position requires a Bachelor's degree plus three or more years of directly related experience in inhalation exposure concepts, such as chamber design/fabrication or aerosol chemistry. A working knowledge of fluid mechanics, thermodynamics (measurement and control), and analytical chemistry is essential. Basic knowledge of electrical processes and application is desirable. Duties will include the development of generation sampling, and characterization systems of toxicological research on industrial and environmental airborne contaminants (aerosols and vapors). ManTech Environmental offers competitive salaries and a complete benefits package. Qualified applicants please submit current résumé with cover letter, including salary requirements, in confidence to: **Ms. Lois Doncaster, Human Resources/05, ManTech Environmental Technology, Inc., a subsidiary of ManTech International Corporation, P.O. Box 31009, Dayton, OH 45431-0009.**

ManTech Environmental Technology, Inc., is an Equal Opportunity Employer.

ENVIRONMENTAL STUDIES AND TOXICOLOGY. The Board on Environmental Studies and Toxicology (BEST) of the National Research Council (NRC) is seeking a **PROGRAM OFFICER** for a study on air pollutants. Responsibilities include working with a committee, directing work of panels, and providing intellectual overview of report. Requires an M.S. or equivalent and at least 3 years of experience in research, teaching, or administration in toxicology, epidemiology, pharmacology, environmental health science, or a related science. Must understand utilization of scientific information in decision-making and have ability to integrate data from a wide variety of disciplines. Please submit curriculum vitae and names of references to: NRC/BEST, HA 354-RT, 2101 Constitution Avenue, NW, Washington, DC 20418. *Equal Opportunity Employer.*

POSITIONS OPEN

Mayo Clinic Section of Clinical Microbiology is seeking an established **MICROBIOLOGIST** with primary interest, demonstrated expertise and record of publications in antimicrobial susceptibilities and assays. M.D. and Ph.D. applicants, certified by the subspecialty board of ABP or ABMM, will be considered. Individual will be responsible for direction of the clinical bacteriology service, development of an active program of applied research, and some teaching of residents and medical students. Special consideration will be given to individuals having an interest in basic mechanisms of antimicrobial resistance. Send curriculum vitae to: **Dr. Thomas F. Smith, Section of Clinical Microbiology, Mayo Clinic, Rochester, MN 55905.** *Mayo Foundation is an Affirmative Action and Equal Opportunity Educator and Employer.*

EXPERIMENTAL PATHOLOGIST CANCER RESEARCH

Position is available for a person with an M.D. or Ph.D. degree and trained in techniques of molecular biology. Candidate must have a demonstrated record of productivity as evidenced by prime authorship publications in critically reviewed journals and as principal investigator on USPHS grants or contracts. The candidate will be expected to initiate and maintain an independent, extramurally funded research program. At least 75% of time will be available for research; and teaching pathology to medical students and residents will be assigned.

Please send curriculum vitae and a letter describing current and planned research goals, and the names of three references to:

John W. Kreider, M.D.
Division of Experimental Pathology
Department of Pathology
The Pennsylvania State University
The Milton S. Hershey Medical Center
P.O. Box 850
Hershey, PA 17033

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PATHOLOGY

The Department of Pathology at the University of Pittsburgh Medical Center is seeking a Board-certified **ANATOMIC PATHOLOGIST** to direct the combined autopsy service at Presbyterian University and Montefiore University Hospitals. The position involves the supervision of approximately 350 adult autopsies from a variety of medical-surgical subspecialties. Candidates should have an interest in teaching medical students, interns, residents, and fellows and a demonstrable research program in some phase of anatomic pathology. Academic rank and salary are commensurate with experience and background. Interested individuals should send curriculum vitae along with the names and addresses of three references to: **Dr. George Michalopoulos, Chairman, Department of Pathology, University of Pittsburgh Medical Center, 722 Scaife Hall, Pittsburgh, PA 15261.** *The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.*

Position available for **PLANT PATHOLOGIST** with a large-scale citrus and ornamental farming operation located in Palmetto, Florida. Position will involve research in the nature, cause and control of plant diseases in ornamentals and citrus; the isolation of disease-causing agents using various techniques including light microscopy; the establishment of methods for destroying and controlling viral pathogens; the development of breeding programs for disease-resistant strains of ornamentals and citrus; and plant propagation through tissue cultures. The minimum educational requirements for the position are a doctorate in plant pathology and 4 years of experience as a plant pathologist. In addition, applicants must have 3 years of experience in the diagnosis of plant viruses using light microscopic methods specific to viral pathogens of ornamentals and citrus; 3 years in plant propagation through tissue cultures; and experience with the pathology of carnations, chrysanthemums, freesia, foliage plants, gladiolus, iris, gypsophilias, lilies, orchids, statice and citrus plants. The position pays a salary of \$36,000 per year and involves a 40-hour work week with the hours of employment being 8 a.m. to 5 p.m. Monday through Friday. Interested persons should send résumé to: **Job Order Number 0460159, Attention: Ms. Patricia Ganno, Job Service of Florida, 2312 Gulf-to-Bay Boulevard, Clearwater, FL 34625.**

POSITIONS OPEN

GENETICIST/MOLECULAR BIOLOGIST, GS 12/13. The Centers for Disease Control (CDC), Division of Environmental Health Laboratory Sciences, is seeking an experienced scientist to study populations exposed to environmental toxicants and characterize populations with respect to alleles involved in disease susceptibility. Applicants with experience in lymphocyte culture are preferred. This is an opportunity to build a molecular genetics laboratory which will interact with both laboratory and epidemiological resources of the CDC. *Applicant must be a U.S. citizen.* Interested applicants should send curriculum vitae and statement of research interests to: **Dr. Karen Steinberg, Mailstop F18, CDC, Atlanta, GA 30333.** *CDC is an Equal Opportunity Employer and provides a smoke-free environment.*

ANNOUNCEMENTS

REQUEST FOR PROPOSALS. The Colorado Department of Health is requesting proposals for a Risk Characterization Study and a Risk Communication Plan for the Rocky Flats Nuclear Weapons Plant near Denver. These projects are follow-ups to the current Toxicologic Review and Dose Reconstruction. Interested bidders must contact **Kathleen Bogert** by 9 August 1991, telephone: 303-331-6736, 4210 East 11th Avenue, Denver, CO 80220 to receive information and bidder requirements on the two projects.

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