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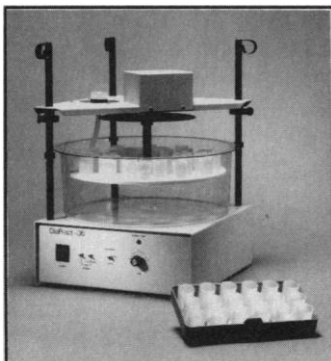
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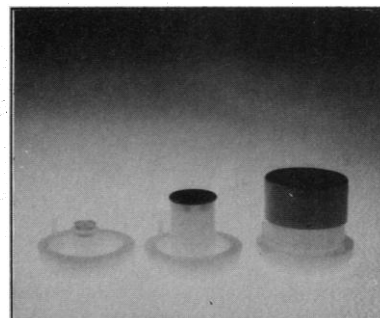
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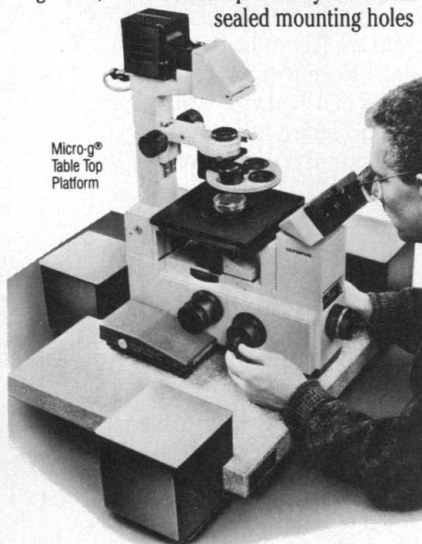
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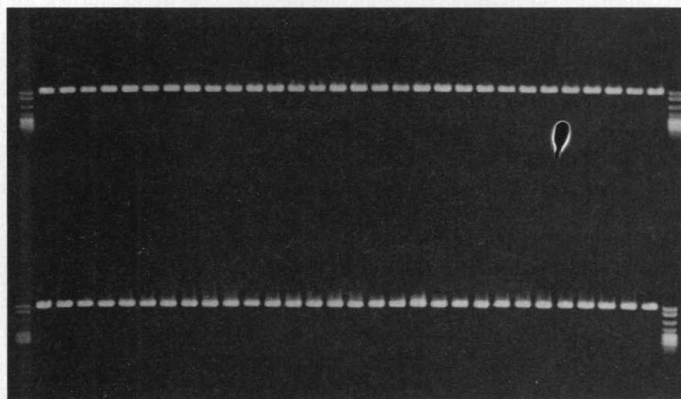
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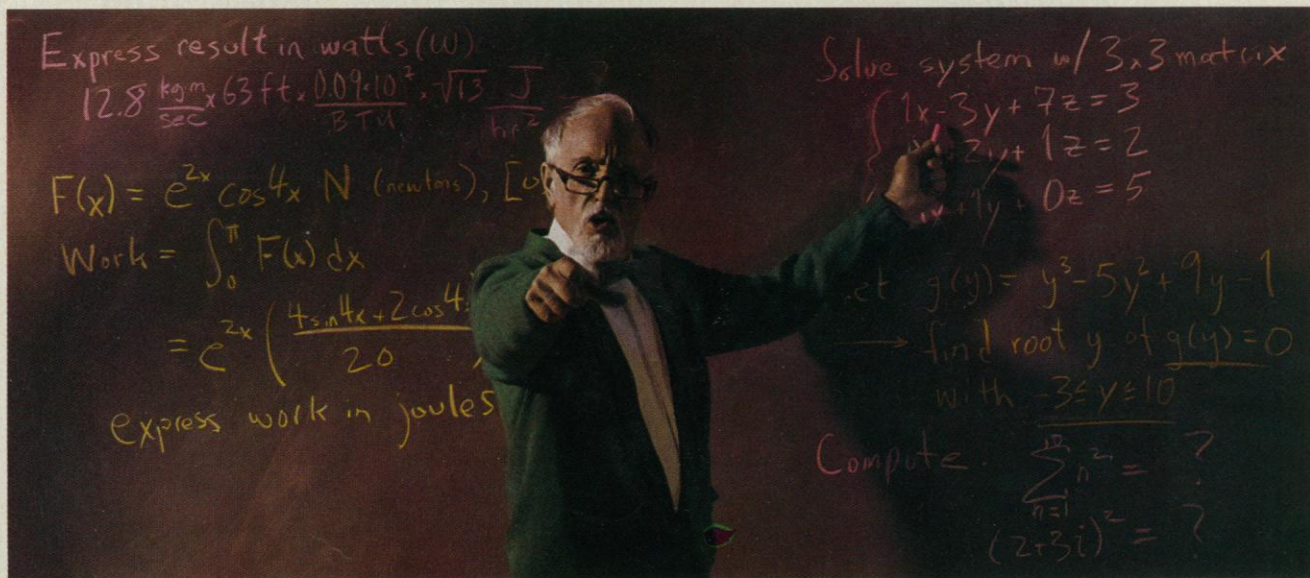


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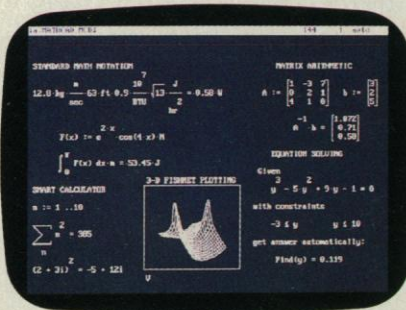
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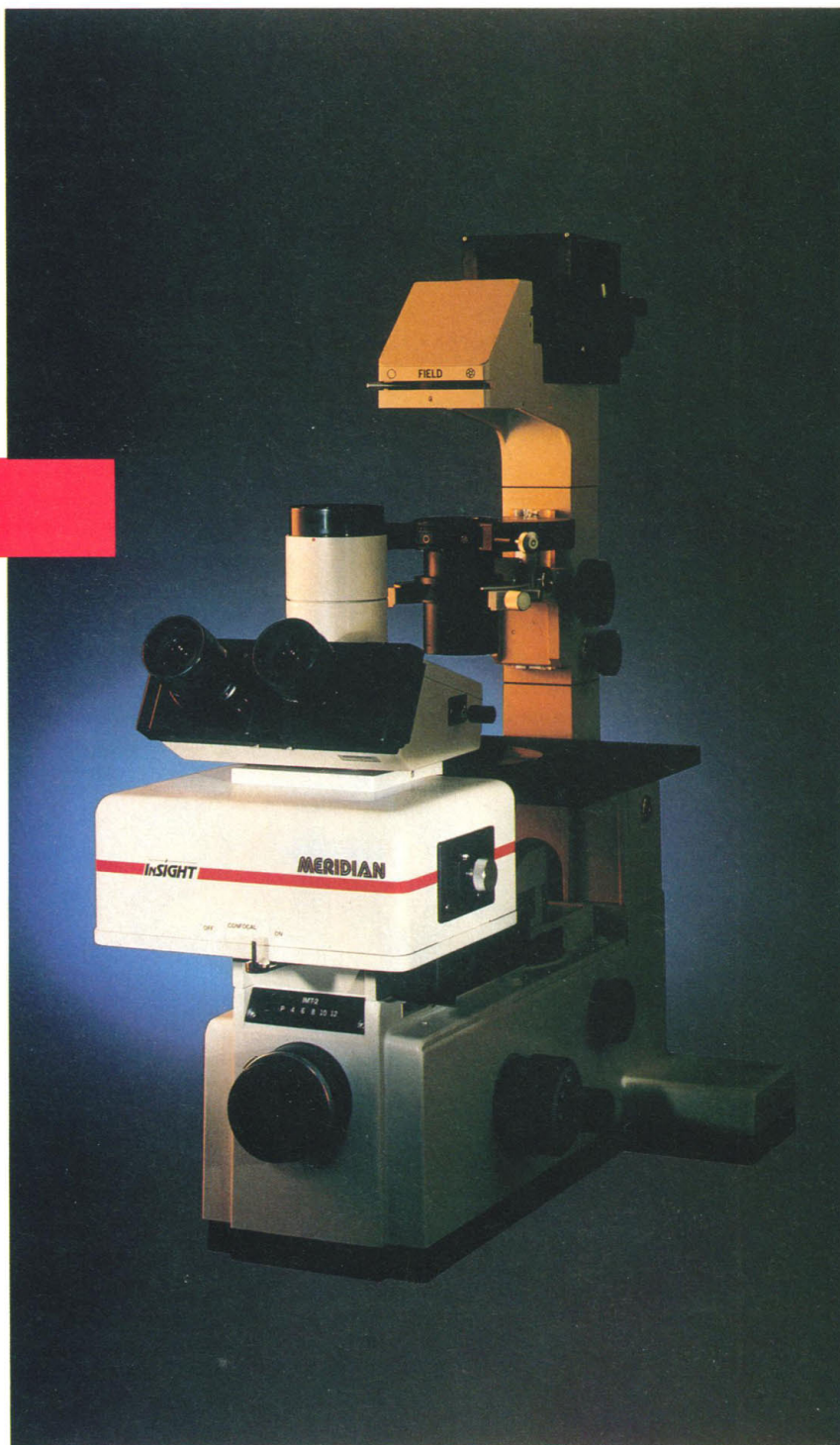
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UNIVERSITY OF MIAMI SCHOOL OF MEDICINE (UMSM) DEPARTMENT OF NEUROLOGY NEUROVIROLOGIST

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

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

VISITING ASSISTANT PROFESSOR AVIAN ECOLOGY

One-year sabbatical replacement, Division of Biological Sciences, University of Montana. Ph.D. required. Teaching experience desirable. Teaching responsibilities to include: (i) lower-division, nonmajors course in Montana wildlife, (ii) participation in upper-division animal ecology course, (iii) ornithology, and (iv) graduate-level course in behavioral or population ecology. Deadline for receipt of curriculum vitae, official transcripts, and three letters of recommendation is 3 May 1991. Send to: **Chairman, Avian Ecology Search Committee, Biological Sciences, University of Montana, Missoula, MT 59812. Affirmative Action/Equal Opportunity Employer.**

PROTEIN CHEMIST, RESEARCH: ASSISTANT PROFESSOR. Tenure-track position available 1 July 1991 to study abnormal proteins in Alzheimer's disease, other neurodegenerative diseases, and experimental models. Experience in protein purification and sequencing desirable. Teaching responsibilities optional. Send résumé to: **Pierluigi Gambetti, M.D., Division of Neuropathology, Institute of Pathology, Case Western Reserve University (CWRU), 2085 Adelbert Road, Cleveland, OH 44106. CWRU is an Equal Opportunity/Affirmative Action Employer.**

POSITIONS OPEN

The Division of Basic Pharmaceutical Sciences, College of Pharmacy, Xavier University of Louisiana, is seeking applications from highly qualified individuals in pharmacology for tenure-track **ASSISTANT PROFESSOR** positions. Applications are encouraged from pharmacologists with research interests in toxicology, environmental toxicology, neuropharmacology, cardiovascular pharmacology, and all other areas of modern pharmacology. Please send curriculum vitae, list of publications, and the names of three references to:

Chairman
Division of Basic Pharmaceutical Sciences
College of Pharmacy
Xavier University of Louisiana
7325 Palmetto Street
New Orleans, LA 70125

ENDOWED PROFESSORSHIP TEXAS A&M UNIVERSITY

The Department of Biochemistry and Biophysics is seeking applications for the Wolfe-Welch Professorship in Chemistry. Applicants should have a Ph.D. and a record of significant research accomplishments supported by competitive funding. Outstanding candidates in all research areas will be considered.

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.

THE UNIVERSITY OF MICHIGAN

CHAIRPERSON, MECHANICAL ENGINEERING AND APPLIED MECHANICS. The Department of Mechanical Engineering and Applied Mechanics at The University of Michigan invites applications and nominations for the position of department chairperson. The candidate should hold a doctoral degree in mechanical engineering, applied mechanics or a related discipline, and have a record of substantial accomplishment in research and education. Please submit supporting materials, including résumé and names of references to: **Professor Albert B. Schultz, Search Committee Chair, Department of Mechanical Engineering and Applied Mechanics, The University of Michigan, Ann Arbor, MI 48109-2125. The University of Michigan is an Equal Opportunity/Affirmative Action Employer.**

DEPUTY AREA DIRECTOR

A new position, deputy area director, has been established at the Plum Island Animal Disease Center (PIADC), which is off the tip of Long Island, New York. Transportation to the island is provided by government-owned boats from Orient Point, New York, or Old Saybrook, Connecticut. The deputy area director provides leadership and operational accountability for the management of all activities which support the scientific programs of the Agricultural Research Service and the Animal and Plant Health Inspection Service groups at PIADC. The deputy area director will be the senior official at PIADC responsible for biosafety, security, animal utilization, library, and all administrative and facility operations through subordinate managers and supervisors. Must have outstanding ability to deal with research program directors/leaders, scientists, administrative personnel, and contractors.

The selectee reports to the director, North Atlantic Area, ARS. *Must be a U.S. citizen.* Salary range: \$66,000 to \$80,000 based upon qualifications and experience. Position is interdisciplinary and candidates must have education/experience in life, physical, or veterinary sciences. Ph.D. or D.V.M. is desirable. Must have knowledge of infectious disease agents. For information on application procedures, contact: **Alice MacNamara at 301-344-1920.** Applications in response to this advertisement should be marked **1N039** and sent to: **Ms. MacNamara, USDA-ARS-PD, Room 322, 6305 Ivy Lane, Greenbelt, MD 20770-1435.** Applications must be postmarked by 3 May 1991.

USDA/ARS is an Equal Opportunity Employer.



Agricultural Research Service
United States Department of Agriculture

POSITIONS OPEN

PLANT BIOLOGISTS. The Department of Horticultural Sciences at Texas A&M University intends to add expertise in molecular biology to an outstanding corps of applied and fundamental plant scientists. Three tenure-track positions, plant molecular genetics, postharvest biology, and horticultural products biology, will be filled at the **ASSISTANT PROFESSOR** level. Individuals will organize and conduct research programs targeted at fundamental questions, teach graduate and advanced undergraduate courses in their areas of expertise, advise graduate students and postdoctoral associates, and establish and administer aggressive extramural grants programs. Cooperative programs with faculty and research scientists within the department, in other departments on campus, and at off campus research centers will be encouraged. Candidates must have earned Ph.D. degrees in horticulture, plant physiology, genetics, biochemistry, molecular biology, food science, or related fields as appropriate to the position sought. Applicants should send résumés, official transcripts, and request that three letters of recommendation be sent to: **Dr. R. Daniel Lineberger, Department of Horticultural Sciences, Texas A&M University, College Station, TX, 77843-2133.** Information concerning the positions may be obtained by writing to the above address or calling **409-845-5250 (FAX: 409-845-0627).** The deadline for applications is 15 June 1991, or until suitable candidates are found. *Texas A&M University is an Equal Opportunity/Affirmative Action Employer.*

LABORATORY ANIMAL SCIENCE. The American Association for Laboratory Animal Science (AALAS) seeks a distinguished professional to serve as **EDITOR** of the association's journal, *Laboratory Animal Science*. Applicants must be currently active in the field. Additional qualifications include: a significant record of published research in the field of laboratory animal science and comparative medicine; organizational and teamwork skills; tact and judgment. Editorial experience desirable, but not necessary. Submit résumés by 1 June 1991 to: **Chairman, LAS Editorial Board, AALAS, 70 Timber Creek Drive Suite #5, Cordova, TN 38018.**

SCIENTIFIC DIRECTOR-VIROLOGY

Franciscan Shared Laboratory, Inc., an independent clinical laboratory serving the greater Milwaukee area has an immediate opening for a highly motivated clinical virologist to direct our diagnostic virology laboratory. Candidates must possess advanced degree (Ph.D. preferred) in microbiology or virology, with at least 5 years of management experience in a diagnostic virology laboratory. Experience/knowledge in molecular virology desirable. Selected candidate will be active in research and development, education of medical technology students, medical students and residents, and marketing the services of the department. Qualified applicants should submit résumé and salary requirements in confidence to: **Robert A. Braun, Personnel Manager, Franciscan Shared Laboratory, Inc., 11020 West Plank Court Suite 100, Wauwatosa, WI 53226.**

*Member of the Wheaton Franciscan System.
Equal Opportunity Employer.*

FACULTY POSITIONS IN MOLECULAR BIOLOGY AND MOLECULAR PHARMACOLOGY

The Department of Pharmacology and Molecular Biology at The Chicago Medical School is initiating the third phase of faculty recruitment for tenure-track positions at the level of **SENIOR ASSISTANT/ASSOCIATE PROFESSOR.** Preference will be given to applicants who have established an independent research program in any aspect of gene expression and molecular pharmacology. The school is located in a modern facility adjacent to the very pleasant North Shore community of Lake Bluff, 38 miles from downtown Chicago and yet easily accessible by car or train, with proximity to forest preserves, Lake Michigan, and cultural attractions. The department is now in an exciting stage of growth and development and has already recruited faculty of high calibre. Excellent core facilities and strong graduate program (Ph.D. and M.D./Ph.D.) with substantial financial support are available. Salary, start-up funds, and other benefits highly competitive. Please send curriculum vitae, research plans, and three names for reference to: **Dr. Samson T. Jacob, Chairman, Department of Pharmacology and Molecular Biology, The Chicago Medical School, 3333 Green Bay Road, North Chicago, IL 60064.** *The Chicago Medical School is an Equal Opportunity/Affirmative Action Employer.*

Bristol-Myers Squibb Pharmaceutical Research Institute

Bristol-Myers Squibb Pharmaceutical Research Institute is continuing to expand our extensive research efforts in the areas of cardiovascular, infectious and metabolic diseases. This expansion has created several exceptional opportunities for Senior Scientists in the following areas:

FIBRINOLYSIS RESEARCH

- * **SR. MOLECULAR BIOLOGIST** - Design and refine antibody-enzyme hybrids that bind to thrombi and promote experimental thrombolysis. Requires postdoctoral or industrial experience in protein cloning and expression, preferably enzymes or antibody fragments in eukaryotic cells. Reply to **Dept. 212A.**
- * **SR. BIOLOGIST** - Initiate a vigorous research program into the cellular aspects of thrombolysis. Your background should reflect a quantitative protein chemical approach to biology with a clear appreciation of molecular biology techniques. Reply to **Dept. 212B.**
- * **POSTDOCTORAL FELLOWS** - Positions are available in support of the programs mentioned above. Reply to **Dept. 212C.**

DIABETES RESEARCH

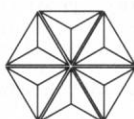
- * **SR. INVESTIGATOR** - Provide leadership to establish a substantial research effort encompassing the molecular and cellular aspects of diabetes mellitus with an emphasis on the cellular actions of insulin. Areas of interest include the actions of the insulin receptor, second messengers involved in regulating cellular energy metabolism, and the mechanisms involved in insulin resistance. Reply to **Dept. 212D.**

Candidates for the above positions should possess a Ph.D. level degree and a minimum of 5 years relevant experience.

RADIOIMMUNOLOGY RESEARCH

- * **SR. INVESTIGATOR** to lead a project involving the identification and radiolabeling of monoclonal antibodies which can be directed towards the Major Histocompatibility Complex antigen. Requirements include a Ph.D. in Biochemistry (or equivalent) with 6-8 years in a related field, which must include experience in radiolabeling (^{99m}Tc, ¹¹¹In, ¹²⁵I, and/or ¹³¹I). A background in surgical procedures is a must. The successful candidate will be stationed at Massachusetts General Hospital for 6-9 months prior to relocating back to New Jersey. Reply to **Dept. 212E.**

We offer a competitive salary and benefits package. For consideration, please forward your resume (including Dept. Code #) to: **Bristol-Myers Squibb Pharmaceutical Research Institute, Human Resources Department, P.O. Box 4000, Princeton, NJ 08543-4000.** An Equal Opportunity Employer.



Bristol-Myers Squibb Company

DOUGLAS HOSPITAL RESEARCH CENTRE
MCGILL UNIVERSITY
NEUROSCIENCE DIVISION

The Neuroscience Division of Douglas Hospital Research Centre is undergoing rapid expansion with plans to recruit 3-4 Assistant Professors and 2 Associate tenure track Professor positions, over the next few years. All recruited scientists will have primary appointments in the Department of Psychiatry at the Faculty of Medicine, McGill University with additional affiliations possible in other departments depending on interest and expertise. The Neuroscience Division of the Douglas Hospital Research Centre currently includes 9 independent investigators specialized in molecular biology, neuroendocrinology, cell biology, neuropharmacology and behavioral sciences. This group is especially recognized for its energetic research activities, competitiveness and collaborative interactions. Approximately 30 graduate students and PDF are currently training at the Centre. While excellence and international recognition in any given aspect of *Neuroscience* is of primary concern, expertise in research on neurodegenerative disorders relevant to the topics of Aging or Schizophrenia is particularly sought. These are the two major themes chosen as targets for integrated development with interests ranging from molecular biology to functional, behavioral and clinical aspects. Candidates will be expected to obtain funds from well recognized organizations in order to pursue independent as well as collaborative research. State-of-the-art equipment and facilities are available. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. Please send complete application with brief outline of proposed research and three letters of reference before June 1, 1991 for positions during academic years 1991-1992-1992-1993 to: Dr. Rémi Quirion, Ph.D., Douglas Hospital Research Centre, 6875 LaSalle Blvd., Montreal, Que. H4H 1R3, CANADA. Fax: (514) 766-2503.

MATHEMATICAL ECOLOGIST
ASSISTANT, ASSOCIATE OR
SENIOR SCIENTIST

The Biology Department of the Woods Hole Oceanographic Institution seeks applicants for a tenure-track faculty position to conduct fundamental research in mathematical ecology of marine systems. Areas of possible research interest include population dynamics and life histories, recruitment, nonlinear dynamics, coupled physical-biological interactions, food web structure and dynamics, and behavioral ecology. Will be encouraged to participate in the graduate education program and expected to develop a vigorous research program and to obtain significant external funding. Ph.D. required, post-doctoral experience preferred. Send resume with names of three professional references to:

Personnel Office
 Box 54PAO



WOODS HOLE
OCEANOGRAPHIC
INSTITUTION

Woods Hole, MA 02543
 An equal opportunity/affirmative action employer

POSITIONS OPEN

THE ROCKEFELLER UNIVERSITY

Invites applications for appointments to **ASSISTANT PROFESSOR AND HEAD OF LABORATORY IN MEDICAL SCIENCES**. Candidates should have M.D./Ph.D. or M.D. with equivalent research experience and anticipate a career in the medical sciences including possible studies in patients. *The Rockefeller University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are urged to apply.* Address responses to:

Dr. Jan L. Breslow
 Search Committee in Medical Sciences
 The Rockefeller University
 1230 York Avenue, Box H32
 New York, NY 10021-6399

UNIVERSITY OF MIAMI
SCHOOL OF MEDICINE (USM)
DEPARTMENT OF NEUROLOGY
MOLECULAR NEUROBIOLOGIST

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

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

INSTRUCTIONAL COORDINATOR
BIOTECHNOLOGY PROGRAM

Appointment: **ASSISTANT PROFESSOR**, 12-month, tenure-track position.

Responsibilities: Principal duties will involve teaching and coordinating the biotechnology summer program, including extensive preparation prior to and following the formal instructional interval. During the academic year the successful candidate will assist in the management of the Honors Program of the College of Agriculture and Life Sciences and participate in the scholarly activities of a department, appropriate to the individual's training and experience, in the college.

Qualifications: Ph.D. in molecular genetics, microbiology, biochemistry, or a related field, research experience in the technologies of modern cellular and molecular biology, and teaching experience in the modern techniques of biotechnology are expected. A strong commitment to excellence in undergraduate education, academic advising as well as the ability to work effectively as a member of coordinated instructional team are also essential.

Starting date: 15 August 1991.

Application procedure: Applicants should send: curriculum vitae or résumé, and a statement of teaching experience and potential to work in the described program. The applicant should also arrange to have three letters of recommendation sent. Only applications that are complete, including supporting letters, and received by 1 June 1991 will be considered. Materials should be sent to: **Instructional Coordinator Search Committee, L. W. Parks, Chairman, Department of Microbiology, Box 7615, North Carolina State University, Raleigh, NC 27695-7615.**

North Carolina State University is an Equal Opportunity Employer and operates under Affirmative Action policy. The university urges all qualified applicants to apply. Proper documentation for identity and employability will be required before the hiring process can be finalized.

FREE PRODUCT INFORMATION SERVICE.

Send a letter stating the specifics about your new laboratory and *Science* will put you in touch with the vendors whose products you will need. Write to: **SCIENCE New Lab Service Department, 1515 Broadway, New York, NY 10036.**

POSITIONS OPEN

The Department of Pathology is seeking individuals with the ability to teach students entering the chiropractic profession the basics of human pathology (pathologist/physiologist). The primary responsibilities include **CLASSROOM AND LABORATORY INSTRUCTION**. Candidate must have a minimum of a master's degree and teaching experience. Send curriculum vitae to: **E. B. Smith, Chairman of Search Committee, Pathology Department, Palmer College of Chiropractic, 1000 Brady Street, Davenport, IA 52803.** *Affirmative Action/Equal Opportunity Employer.*

BIOLOGY. Potsdam College of the State University of New York invites applicants for a full-time **TEMPORARY POSITION** in the Department of Biology effective 1 September 1991. Responsibilities: Expertise in the field of developmental biology including the development of higher plants, to teach an elective which would help prepare students for an area of modern biology. Must contribute to the introductory biology program. Requirements: Master's degree is required, A.B.D. or Ph.D. preferred. Qualifying candidates should send letter of application, résumé, and the names and telephone numbers of at least three references to: **Chair, Biology Department Search Committee, Potsdam College, Potsdam NY 13676.** Review of applications will begin immediately and continue until the position is filled. *Potsdam College is an Equal Opportunity/Affirmative Action Employer committed to excellence through diversity and welcomes applications from all persons including women, persons of color, disabled persons, veterans, and members of other underrepresented groups.*

LECTURER/LABORATORY COURSE COORDINATOR.

The Department of Biology at Washington University in St. Louis seeks a qualified individual to organize and offer an upper-level laboratory course in molecular biology, cell biology, and/or genetics to be offered both for advanced undergraduates and for University College and Summer School students. This individual would also coordinate the offering of other laboratory courses given by members of the faculty. This full-time position would include responsibility for scheduling the use of teaching laboratories and support facilities, for supervising a laboratory assistant in the preparation of reagents and materials for laboratory courses, maintaining equipment in a fully operational condition, and in working with faculty and TA's to optimize the quality of laboratory course offerings. Candidates should have a Ph.D. degree with educational and research training in molecular biology, cell biology, and/or genetics; display dedication and aptitude for teaching; and possess interpersonal skills to facilitate interaction with undergraduate and graduate students, staff, and faculty. To apply, send a letter indicating interest in this position and curriculum vitae and arrange to have three letters of reference sent to: **Professor Roy Curtiss III, Chairman, Department of Biology, Campus Box 1137, One Brookings Drive, Washington University, St. Louis, MO 63130.** *Washington University is an Equal Opportunity/Affirmative Action Employer.*

INDEPENDENT SCIENTIST

The Neurobiology Laboratory, part of the Neuroscience Branch of the National Institute on Drug Abuse, Addiction Research Center, wishes to enhance its efforts in elucidating molecular and cellular mechanisms relevant to addiction by recruiting an independent investigator with interests and expertise complementing existing programs in molecular pharmacology, molecular neurobiology, and brain imaging. Individuals with expertise in: (i) protein biochemistry (e.g., defining activity-dependent post-translational modifications of neuronal proteins or structures of drug receptors, and interest in establishing enhanced protein/peptide biochemical facilities); or (ii) cell biology (e.g., of drug neurotransmitter receptors and related second messengers) are especially encouraged to apply. The successful candidate will lead a unit or laboratory, depending on experience, with staff and resources available to take a leadership position in the field. Federal salary and benefits are competitive. M.D. and/or Ph.D. (biology, pharmacology) and U.S. citizenship required. Applicants are encouraged to apply to:

Brian Butters, Neuroscience Search Committee
Addiction Research Center
 P.O. Box 5180
 Baltimore, MD 21224

The ARC is an Equal Opportunity/Affirmative Action Employer, M/F/H/V, and is smoke- and drug-free.

PHARMACEUTICAL

SCIENTIFIC COMPUTING

SmithKline Beecham, a world leader in pharmaceutical research, has two positions available for accomplished scientists to act as a liaison between Information Sciences and the Clinical and Drug Discovery departments, respectively.

Responsibilities will include the identification of current and potential computing requirements for assigned client group and the direction and implementation of major computing projects to ensure relevant designs, adequate resources, timeliness, and appropriate priority. The scientists will also serve as consultants on R & D-wide strategic computing directions, and will co-operate with Information Sciences staff to coordinate the implementation of strategies across all R & D areas.

Requirements for the Liaison to the Drug Discovery Group include a Ph.D. or MS in Physical, Biological, Chemical or Computer Science with extensive research experience and a minimum of four years experience in laboratory research and computing with a proven record of achievement in both disciplines.

Requirements for the Liaison to the Clinical Department include an advanced degree in Physical, Biological, Chemical or Computer Science and a minimum of 4 years experience with the clinical development process and large scale database development. Familiarity with world-wide Regulatory issues, including preparation of submission dossiers, required. Excellent communication skills are necessary in both positions.

SmithKline Beecham's state-of-the-art research facility is located in suburban Philadelphia, PA. We offer a competitive salary, benefits, and relocation package. For confidential consideration, submit your C.V. to: T. Gallagher, Senior Employment Administrator, G0169, SmithKline Beecham Pharmaceuticals, P.O. Box 1539, King of Prussia, PA 19406-0939. EOE, M/F/H/V.



SmithKline Beecham
Pharmaceuticals

DEAN OF MINES AND EARTH SCIENCES

**University of Utah
Salt Lake City, Utah**

The University of Utah invites applications and nominations for the position of Dean of the College of Mines and Earth Sciences.

The Dean reports to the Academic Vice President and is a member of the University's Council of Academic Deans. The Dean is responsible for administering an annual budget in excess of \$9,700,000 including approximately \$6,350,000 in externally funded research.

The College consists of five academic departments: Fuels Engineering, Geology and Geophysics, Metallurgical Engineering, Meteorology, and Mining Engineering. In addition, the College houses the Generic Mineral Technology Center in Communion, the Utah Mining and Minerals Resources Research Institute, and the University Seismograph Stations. The University of Utah is a member of the University Corporation for Atmospheric Research (UCAR) and Incorporated Research Institutes for Seismology (IRIS).

The College has 51 academic faculty members involved in teaching and research in the earth sciences and minerals engineering disciplines. Ties with departments in the Colleges of Business, Engineering and Science are fostered by joint degree programs and collaborative research.

Applicants must have an earned doctorate, a commitment to teaching, an outstanding record in research, demonstrated administrative skills, and scholarly credentials to qualify for a faculty appointment in one of the departments of the college.

Initial screening of applicants and nominations will begin April 1, 1991 and continue until the position is filled. Applicants should send a statement of interest, a current curriculum vitae, and the names of five references to: Dean Kay L. Dea; Chair, Search Committee for the Dean of Mines and Earth Sciences, Graduate School of Social Work, University of Utah, Salt Lake City, Utah 84112-1183.

The University of Utah is the flagship institution of the state's higher education system and represents a major academic focus for the entire Intermountain Region of the western United States. It is composed of fifteen colleges and professional schools, and enrolls approximately 19,000 undergraduate and 4,500 graduate students.

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

FACULTY POSITIONS IN BIOCHEMISTRY and CELL BIOLOGY

St. Jude Children's Research Hospital

St. Jude Children's Research Hospital, a private research institute, is engaged in a major expansion of its facilities and scientific activities. A new research building to be completed in early 1991 will provide 240,000 square feet of new laboratory space which will house the institute's basic science programs. As part of this expansion, new faculty positions are now available in the Departments of Biochemistry and Cell Biology. Although preference will be given to applicants who have recently completed postdoctoral training and are seeking positions at the level of Assistant Member, more senior investigators with appropriate research interests and qualifications will be considered for positions of higher faculty rank. Candidates with programs focusing on the regulation of cell growth, differentiation and transformation, the biochemistry and molecular biology of signal transduction, and mechanisms of gene regulation are particularly encouraged to apply. Opportunities exist for collaborative interactions with ongoing basic research programs in Virology and Molecular Biology, Immunology, and Pharmacology, as well as with clinical investigators in Hematology/Oncology and Infectious Diseases. In addition to new facilities and excellent start-up funds, salaries are nationally competitive and include a generous benefits package. A strong institutional commitment to its faculty ensures stability in program development and continuity of research activities.

Applicants should submit a curriculum vitae, a letter summarizing their research accomplishments and goals, and the names of three references to either:

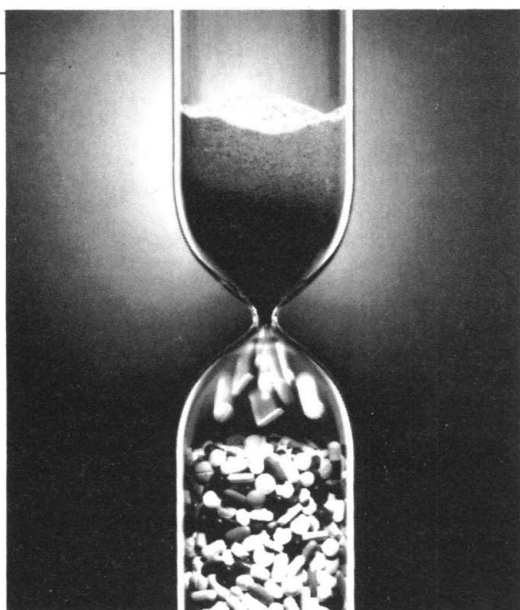
Dr. James N. Ihle

or

Dr. Charles Sherr

**St. Jude Children's Research Hospital
332 N. Lauderdale
Memphis, TN 38105 USA**

SJCRH IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER



A TIME FOR ACHIEVEMENT

The opening of Glaxo Inc.'s \$350 million Research Institute in Research Triangle Park, NC represents a monumental commitment in the pharmaceutical industry to the discovery of drugs for unmet patient needs. Scientists engaged in Glaxo's expanding research and development programs at the Center have a premier facility in which to work.

We are presently seeking highly motivated individuals for challenging opportunities in the area of Drug Discovery. Selected candidates will work with basic research scientists in search of novel therapeutic approaches to the treatment of proliferative, inflammatory and metabolic diseases.

If you have the experience and ability to build teams in tumor and transgenic biology, you'll want to investigate these openings:

GROUP LEADER Tumor Biology

The ideal candidate will have a research record in cancer biology that includes the development and use of *in vivo* tumor models to evaluate chemotherapeutic agents for solid tumors and metastases. We require and will support a team leader and innovator who can not only establish a full range of current models, but also develop more relevant models for the important processes of tumor growth, metastasis and angiogenesis. This person will be expected to facilitate evaluation of ongoing projects as well as to propose and establish novel avenues for the discovery of new antineoplastic agents. This individual will have worked at the cutting edge of cancer biology and should have contributed to the current understanding of cellular and molecular targets for anticancer drug discovery. Specific job requirements include a Ph.D., D.V.M. or M.D. Degree with 5-7 years of relevant experience.

Please refer to Job #9116B504-SC on all resumes.

SECTION HEAD Transgenic Facility

This person will have the unique opportunity to design and staff a state-of-the-art transgenic facility to complement on-going efforts both in cancer research and in the areas of inflammation and metabolic disease. Although there will be full support from the Molecular Biology Group, this person will still have a central role in the application of molecular and cell biology. In addition, this person will have experience in preparing immortal cell lines and will have demonstrated the ability to conduct collaborative research across these disciplines during the past 5 years. This is an outstanding opportunity to make an important contribution to our knowledge of the molecular basis of disease and to use the techniques of *in vivo* gene manipulation and expression to discover new therapeutic targets. The ideal leader would be proficient in constructing transgenes. Knowledge of embryonal stem cell transformation technology, oocyte implantation, gene transfer and retroviral infection methodology is essential. A genuine zeal to use these approaches to control gene expression via pharmaceutical intervention is desired. Specific job requirements include a

Ph.D., D.V.M., or M.D. in molecular genetics or related area and 7-10 years of relevant experience.

Please refer to Job #9116B502-SC on all resumes.

Both of these leader positions will have the opportunity to:

- Lead your own research team and contribute to a range of challenging research projects which will discover drugs for the treatment of serious and debilitating diseases,
- Influence research strategy in our major Therapeutic Areas of Cancer, Inflammation and Metabolic Dysfunction, and
- Pursue career advancement with unrivalled opportunities for personal and professional development.

ASSOCIATE SCIENTISTS Tumor Biology

Associate Scientists (3-5) are required to be part of these research efforts. These candidates should have 1-5 years of experience in implanting xenograft and homograft tumors *in vivo* and/or tissue culture skills for preparing tumor cell lines. The ability to work with other scientists in a team effort and the confidence to function with minimal supervision are valued traits. Good organizational skills and work habits are essential. Specific job requirements include a Bachelor's Degree and 1-5 years of relevant hands-on experience with *in vivo* tumor models.

Please refer to Job #9116B500-SC on all resumes.

The Glaxo Research Institute is located in a newly constructed 1,500,000 square foot R&D Complex in Research Triangle Park, NC. This dynamic environment offers an exceptional opportunity to contribute to scientific advancement through drug discovery. This is enhanced by the possibility of extensive collaboration with scientists at the three major universities located in the Triangle Park area. Our location also offers a well-rounded lifestyle, beautiful residential areas, major retail centers, excellent health care and abundant cultural and recreational facilities. Join Glaxo and enjoy excellent salaries, flexible benefits, an on-site recreation and fitness center, a spirit of enthusiasm and teamwork and outstanding opportunities for career satisfaction.

Send your resume, **INDICATING THE CORRESPONDING JOB #**, and salary history to: **Human Resources Department, Glaxo Inc., P.O. Box 13398, Research Triangle Park, NC 27709.** (No Phone Calls or Agency Referrals, Please.) An Equal Opportunity Employer M/F/H/V.

Glaxo Inc.

SCIENTISTS (Senior Level)

The Division of AIDS of the National Institute of Allergy & Infectious Diseases is seeking senior level scientists in VIROLOGY and PHARMACOLOGY for the Clinical Sciences Section of its Treatment Research Program (TRP).

The Treatment Research Program plans and directs a major extramural research program that examines and evaluates potential therapeutic interventions for HIV disease and its related conditions in clinical trials. The Clinical Sciences Section functions as the primary scientific resource for the TRP, providing comprehensive guidance and expert leadership in immunology, virology and pharmacology by defining the clinical research agendas of the Immunology, Virology, and Pharmacology Committees of the AIDS Clinical Trials Group, developing and initiating innovative extramural research to support the clinical trials, providing direction and oversight for the quality assurance of immunologic, virologic and pharmacologic study parameters, and serving as scientific liaison with academic and industry-based investigators.

Candidates must have a PhD, with postdoctoral experience in biomedical research and direct experience using a wide variety of virologic or pharmacologic assays, data analysis techniques, knowledge of HIV disease and its associated opportunistic infections and malignancies, and research project administration. U.S. citizenship required. Please send a curriculum vitae to:

Dr. Jon Kagen
6003 Executive Boulevard
Room 212N
Rockville, MD 20892
(301) 496-0700



NIH is an Equal Opportunity Employer

University of Minnesota

**Department of Pediatrics and
Institute of Human Genetics**

**Martin Lenz Harrison Chair in
Developmental Biology**

The University of Minnesota Medical School invites applications and nominations for the Martin Lenz Harrison Endowed Chair. The Institute of Human Genetics and the Department of Pediatrics are seeking a highly qualified, internationally recognized, mammalian developmental molecular biologist, who will recruit and direct a group of investigators with interests in mammalian developmental biology. Individuals with interests in other areas of vertebrate developmental biology will also be considered. This position will be a tenured full Professor (M.D. and/or Ph.D.) in the Department of Pediatrics and the appropriate basic science department, with membership in the Institute of Human Genetics.

To support this program, substantial financial and space commitments are available. Laboratory space for the Chair and additional faculty will be in the Institute of Human Genetics. Presently, the research laboratories of 9 faculty members from 4 departments are located within the Institute. Areas of ongoing research include molecular immunology, molecular neurogenetics, oncogenesis, control of gene expression, and hematopoiesis.

Please send nominations and inquiries to:

Dr. Harry T. Orr
Chair, Search Committee
University of Minnesota
Institute of Human Genetics
Box 206 UMHC
Harvard Street at East River Road
Minneapolis, MN 55455

The last date for receipt of applications is June 30, 1991.

The University of Minnesota is an equal opportunity educator and employer.

Make A Difference In The Quality of Life

The Hyland Division of Baxter Healthcare, a leader in the area of human plasma-derived protein therapeutics, is undertaking the development of its next generation of therapeutics with the aid of state-of-the-art biotechnology. We seek energetic individuals who can contribute effectively in a multi-disciplinary R&D environment in the following areas:

SCIENTIST IV Process Analysis (Dept. LD/PA4)

We seek an individual to design, conduct and oversee experiments relating to assay development, assay validation and process validation, plus analyze data and prepare reports. In addition, this individual will review literature and provide support to product claims as well as IND and PLA submission. We require a PhD degree in biochemistry or a related field. Background should include protein purification and assay development relating to chemical, biochemical and immunological assay systems. Knowledge of cell culture and hybridoma technology essential. Computer literacy, experimental design and/or statistical analysis experience desirable.

SCIENTIST IV Efficacy (Dept. LD/E4)

Duties will include literature review, model evaluation, development and adaptation of in vivo and in vitro cell culture systems in support of research projects at various stages of product development. This individual will independently design, perform and evaluate relevant safety and efficacy studies in animal and cell culture systems. A PhD in physiology, toxicology or related science is required, plus a strong background in pharmacology, microbiology, immunology, and biochemistry. Experience in performance of safety and efficacy studies in animals and cell culture systems is essential. Applicants must also possess strong organizational skills, excellent oral and written communication abilities, and have experience with experimental design and statistical analysis.

Baxter Healthcare Corporation, a Fortune 100 company, is synonymous with products, systems and services devoted to improving health care throughout the world. We provide a smoke-free environment plus competitive compensation and benefits. Please send your resume in confidence (*indicating on the outer envelope the Dept. Code for your position of interest*) to: **Baxter Hyland Division, Human Resources Dept., 4501 W. Colorado Blvd., Los Angeles, CA 90039.** Employment is contingent upon the result of a drug screening test. An Affirmative Action/Equal Opportunity Employer.

Hyland Division

Baxter

POSITIONS OPEN

LEADER FOR THE SURFACE WATER AND MODELING TEAM ENVIRONMENTAL PROCESSES AND EFFECTS RESEARCH OFFICE OF RESEARCH AND DEVELOPMENT WASHINGTON, D.C. \$61,643 to \$80,138

U.S. Environmental Protection Agency (EPA) is seeking highly qualified candidates for the position of leader for the Surface Water and Modeling Team, Office of Environmental Processes and Effects Research (OEPER). OEPER, which is in the Office of Research and Development (ORD), is responsible for the development of scientific methods and data necessary to understand, predict, and manage the entry, movement, and fate of pollutants and their effects on the food chain, as well as their effects on nonhuman organisms and ecosystems. This research is conducted in ORD's field research laboratories. The team leader is responsible for the planning, coordination, and review of a comprehensive research program on global climate change, stratospheric ozone depletion, Arctic environmental protection, and ecological impacts due to air pollution. The team leader, located in Washington, D.C., supervises an interdisciplinary technical staff of four. Applicant must have a Ph.D. in systems ecology or equivalent experience. Mandatory technical qualifications:

- (i) Demonstrated ability to plan/develop complex research programs relevant to the needs of EPA.
- (ii) Demonstrated ability to manage/implement complex research programs relevant to the needs of EPA.

To meet the requirements of the position, applicant must submit a completed SF-171 (application for federal employment) to: Ms. Barbara Ashton, PM-212, Headquarter's Client Service Division, Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. Telephone: 202-382-2973. The vacancy announcement number is: 1ORD-687. Resumes without accompanying SF-171s will not be considered. Applications must be received by 19 April 1991. EPA is an Equal Opportunity Employer.

COMPARATIVE PHYSIOLOGIST. Department of Biology seeks candidates for 1-year position, September 1991, with possibility of a second year. To teach comparative animal physiology and an additional course, participate in team-taught introductory course, and direct undergraduate student research. Send curriculum vitae including research interests, and three letters of reference to: Patsy Dickinson, Department of Biology, Bowdoin College, Brunswick, ME 04011 by 1 May 1991. Bowdoin College is committed to Equal Opportunity through Affirmative Action.

NEUROSCIENTISTS, CELL AND MOLECULAR BIOLOGISTS. Tenure-track FACULTY POSITIONS open in gross and microscopic anatomy. Research interests in neurosciences, cell and molecular biology. Rank and salary commensurate with experience. Research start-up funds available. Send curriculum vitae, statement of research interests, and the names and addresses of three references to: Dr. James C. Story, Chairman, Department of Anatomy and Cell Biology, Meharry Medical College, 1005 D. B. Todd Boulevard, Nashville, TN 37208 by 1 May 1991. An Equal Opportunity/Affirmative Action Employer.

FACULTY POSITIONS MOLECULAR APPROACHES TO BIOLOGICAL TIMING

Tenure-track positions are now available in a newly established NSF Science and Technology Center for Biological Timing. The center seeks individuals with research interests in the generation and control of circadian, endocrine, and neural rhythms. Investigators will hold primary appointments in the Department of Biology or in the Department of Medicine. Interested candidates should send curriculum vitae, statement of research interests, and three letters of reference by 30 April 1991 to:

Search Committee
Center for Biological Timing
Gilmer Hall
University of Virginia
Charlottesville, VA 22901

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

POSITIONS OPEN

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

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

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

UNIVERSITY OF MISSOURI DIRECTOR OF DALTON RESEARCH CENTER

Applications and nominations are invited for the position of director of the Dalton Research Center (DRC). DRC is a university-supported research facility that occupies a space of 32,000 square feet in a free-standing building and has research investigators from the School of Medicine and the Colleges of Veterinary Medicine and of Arts and Sciences. Its research programs in cardiovascular and related areas utilize molecular, cellular, and system models. Several technical and administrative core units are in place to support the research mission of the DRC. The successful candidate will have a Ph.D. or equivalent degree in a biomedical field, a nationally funded research program that complements the primary research thrusts at the DRC, and scholarly credentials appropriate for tenure in a biomedically oriented department. Administrative experience is desirable, but not essential. The director will be expected to: provide scientific leadership to the DRC, maintain an active research program, explore possibilities for and develop multi-investigator program(s) and/or center grant(s), facilitate research and educational interactions between the DRC and faculty in relevant departments, and administer budgets, facilities, and personnel at DRC. The director reports to the vice provost for research and dean of the Graduate School and is advised by a committee of departmental chairs. Please send curriculum vitae and names of three or more references to: Dr. H. D. Kim, Search Committee Chair, Professor and Chairman of the Department of Pharmacology, School of Medicine, University of Missouri-Columbia, Columbia, MO 65212. Screening will begin 15 May 1991 and will continue until the position is filled.

The University of Missouri is an Equal Opportunity Employer.

MOLECULAR ONCOLOGY DEVELOPMENT PROGRAM CENTER FOR MOLECULAR MEDICINE YALE UNIVERSITY SCHOOL OF MEDICINE

Exciting opportunities at all levels exist in new program at Yale over the next 2 to 3 years. Individual with research interests in the molecular aspects of oncology or the development of multicellular aspects of oncology or the development of multicellular organisms are invited to apply. Qualified candidates, M.D. or Ph.D., will have completed at least 2 years of productive postdoctoral research and will be expected to establish independent programs. Appointees will hold regular FACULTY POSITIONS in one of the existing departments of the School of Medicine. Partial research support for the initial years of the appointment will be provided. Curriculum vitae, a summary of research interests, and the names of three referees should be submitted by 30 June 1991 to:

Dr. Sherman M. Weissman
Search Committee
Yale University School of Medicine
P.O. Box 3333
New Haven, CT 06510

Yale University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

PROGRAM MANAGER SOUTHEASTERN REGIONAL OXIDANT NETWORK (SERON) PROGRAM

SERON is a new program being developed in Atlanta by the University Corporation for Atmospheric Research (UCAR), a private nonprofit organization founded in 1960 and sponsored by the National Science Foundation.

As administrative manager of SERON, the successful candidate will work under the guidance of the scientific manager to ensure communication and cooperation among participants in meeting program goals, will establish and monitor a program budget and schedule that support the scientific objectives, and will establish an office at the Georgia Institute of Technology.

Requirements include an M.S. in earth or atmospheric science, or the equivalent; demonstrated skill in program management in a scientific or engineering research program; in the effective use of one or more cost-schedule control software programs; in the design of complex research and operational field activities; in functioning effectively within a matrix organization; and communication and supervisory skills. Willingness to travel as needed is also necessary, and an M.B.A. or related business degree is desirable.

To apply, please submit a cover letter which includes salary requirements with curriculum vitae or résumé to: Rebecca Campbell-Howe, Human Resources Administrator, UCAR, P.O. Box 3000, Boulder, CO 80307. Please reference job #1362.

UCAR has a strong commitment to the principle of diversity in all areas. In that spirit, we are interested in receiving applications from a broad spectrum of people, including women, members of ethnic minorities, and disabled individuals.

UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH

ENVIRONMENTAL ADVOCACY. The Environmental Defense Fund, a leading nonprofit organization of scientists, attorneys, and economists, has two openings in Washington, D.C. **SENIOR TOXICOLOGIST:** we seek a Ph.D. (or M.D.) in toxicology or related field, with significant research accomplishments, and teaching or policy experience. **STAFF SCIENTIST:** we seek a Ph.D. (or experienced M.S.) with strong chemistry background for industrial pollution prevention work. Both positions offer unlimited opportunities for work on high-profile environmental issues. Excellent salary and benefits. Please send résumé and names of three references to: Toxics Program, Environmental Defense Fund, 1616 P Street, N.W., Washington, DC 20036. Minorities and women are strongly encouraged to apply.

MOLECULAR GENETICIST PSYCHOPHARMACOLOGIST

Mayo Clinic/Mayo Medical School invites applicants for a FACULTY POSITION in the Department of Psychiatry and Psychology, in close collaboration with members in the Department of Pharmacology and/or the Department of Biochemistry and Molecular Biology. Candidates should have primary interests in major psychiatric disorders and be pursuing these interests with the methods of molecular genetics and/or molecular pharmacology. M.D. and clinical training in psychiatry are desirable but not required. Mayo will provide generous space and start-up funds in addition to an attractive package of salary and benefits. Academic rank will be determined by qualifications; established investigators are also encouraged to apply. Submit curriculum vitae with names and addresses of three or more references to: Toshihiko Maruta, M.D., Chairperson of Search Committee, Department of Psychiatry and Psychology, Mayo Medical School, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION. Available immediately to investigate the molecular and biological properties of integrin cell adhesion receptors. Emphasis will be on the expression of chimeric and mutant integrins. Studies will include biochemical and cell biological studies of integrin function related to post-ligand binding events and signaling. Send curriculum vitae and three references to: Dr. David A. Cheresh, Research Institute of Scripps Clinic, IMM13, 10666 North Torrey Pines Road, La Jolla, CA 92037; Telephone: 619-554-8281; FAX: 619-554-6705. Affirmative Action/Equal Opportunity Employer, M/F/H.

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Pfizer is a lot more than a pharmaceuticals and healthcare industry leader. It's a group of people dedicated to discovering, developing and marketing innovative pharmaceuticals, animal health and specialty chemical products that improve the quality of life worldwide. As a Fortune 100 company, Pfizer is committed to continuing its remarkable growth by investing more than half a billion dollars annually in research and development.

BS/MS Scientists

If you have relevant laboratory experience and strong theoretical knowledge, take advantage of this opportunity to join multi-disciplinary teams in one of the following areas:

Protein Biochemist—Provide general assay support of protein isolation and characterization research.

Protein Purification—Develop and scale up natural and recombinant protein purification from various cell expression systems.

Behavioral Neuroscientist—Develop novel behavioral models toward the discovery of novel drug development for psychotherapeutic indications.

Cellular Electrophysiology—Investigate the role of lymphocyte ion channels in autoimmune diseases, using patch-clamp recording and videoimaging technologies.

Cellular Immunology—Conduct studies to discover novel therapeutics for autoimmune diseases. Duties include flow cytometry analysis of T and B lymphocytes, *in vitro* T cell activation studies and *in vivo* modeling.

Our excellent benefits include competitive salaries, health and dental care, paid holidays and vacations, savings, investment and pension plans, and relocation assistance to our attractive Connecticut shore location.

To learn how you can be part of our success, please send your resume to: Mr. Kym Goddu, Central Research Division, Pfizer Inc, Eastern Point Road, Groton, CT 06340. We are an equal opportunity employer.



Central Research

The elements of success.

MOLECULAR BIOLOGIST Anticancer Drug Discovery

The Upjohn Laboratories Division of The Upjohn Company has an immediate opening for a research scientist to join our Cancer & Infectious Disease Research Group. Working with a team of cell biologists, biochemists, and pharmacologists, the successful candidate will conduct independent research on selected molecular targets relevant to the discovery of novel agents for cancer treatment. This scientist will design and construct appropriate cellular or biochemical systems for screening of synthetic or natural materials; also employ molecular biological approaches to studies of the mechanism of action of antitumor drugs such as novel DNA-interactive compounds or agents that inhibit tumor angiogenesis. The incumbent is expected to play a significant role in the selection of future areas of research focus for the cancer program and will carry out high-quality work warranting publication in peer-reviewed journals.

In addition to a Ph.D degree in molecular biology, cell biology, biochemistry or related field, 3-5 years of independent research experience in recombinant DNA technology applied to a cancer-related field of investigation, such as growth factors, oncogenes, or tumor suppressor genes is essential.

A highly competitive compensation and benefits program is offered including relocation assistance. Upjohn Laboratories offers a stimulating, multi-disciplinary research environment at our modern facilities located in Kalamazoo, a southwestern Michigan city of 225,000, located midway between the Chicago and Detroit metropolitan areas. Our region provides an outstanding mix of cultural and recreational pursuits and a reasonable housing market. Qualified candidates are invited to send their curriculum vitae and cover letter to: THE UPJOHN COMPANY, CORP. RECRUITING/ POSITION CODE 910197-013, 7000 PORTAGE ROAD, KALAMAZOO, MI 49001 USA. An Equal Opportunity Employer M/F.

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RESEARCH OPPORTUNITIES

Searle, a world-wide leader in the pharmaceutical industry is seeking to strengthen our research programs in the areas of analgesia, neuroprotection, and prostoglandins with the addition of a Senior Research Investigator and a Research Scientist. These are excellent opportunities to make an important contribution towards the development of novel approaches in the understanding and treatment of neurodegenerative conditions and pain.

Senior Research Investigator

The professional in this position will independently set up and validate in vitro and in vivo models to assess novel approaches in the development of neuroprotective agents or mechanisms of action in prostoglandins. We require a Ph.D. in biochemistry, pharmacology, neuroscience or neuroanatomy along with 2 years of post doctoral work in neuroprotection or prostoglandins. Knowledge of models of analgesia, inflammation or neuroprotection is also required.

Research Scientist

The candidate we select will assess the mechanism of action of novel analgesics or neuroprotective agents. An MS or BS in biology, pharmacology, or neuroscience is required in addition to prior experience with electrophysiological recording or models of analgesia.

Research the opportunities at Searle. Send your resume, in confidence, to: Searle, Human Resources, Dept. PB18, 4901 Searle Parkway, Skokie, IL 60077. An equal opportunity employer M/F/H.

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Together, we can do a world of good.



Public Health Service
National Institutes of Health
National Institute of Environmental
Health Sciences
Research Triangle Park,
North Carolina

VETERINARY MEDICAL OFFICER/TOXICOLOGIST GM-15

(Salary Range: \$61,643 - \$80,138)

Or

VETERINARY MEDICAL OFFICER/TOXICOLOGIST GM-14

(Salary Range: \$52,406 - \$68,129)

The Division of Toxicology Research and Testing (DTRT), an operating component of the National Toxicology Program (NTP), is seeking applicants for a permanent position as Veterinary Medical Officer/Toxicologist, GM-15 to serve as Head, Study Design Group or as Veterinary Medical Officer/Toxicologist, GM-14, to serve as scientist in the Chemical Carcinogenesis Branch (CCB). The CCB sets priorities, designs, conducts, evaluates and reports long-term toxicity and carcinogenicity evaluations in rodents on chemicals of environmental concern. A majority of the studies are performed in laboratories under contract to the NTP but has limited in-house research capabilities for short-term and long-term studies. The NTP disseminates the results of its long-term and short-term studies to other government agencies and the scientific community through the publication of NTP Technical Reports and by publications in the scientific literature. The selectee, depending on his/her background will also assist in pharmacokinetics, chemical selection, monitoring of the laboratories conducting the studies or in the evaluation and reporting of the studies. The selectee will interact with chemists, toxicologists, pathologists and with other discipline leaders within DTRT and with scientists from government regulatory agencies, private industry and consumer groups on the chemistry, design, or evaluation of NTP long-term toxicity and carcinogenicity studies on environmental chemicals and their potential to be hazardous for man. The selectee will also be expected to participate in studies that will aid in our understanding of rodent carcinogenicity studies and their relevance for hazard identification for man. The incumbent must possess a DVM, Sc.D., MD, Ph.D., or equivalent in toxicology, pathology or related field and significant research experience. Board certification (ABT) or ACVP is desirable for the scientist position but required for Head of Study Design. U.S. citizenship is required.

For additional information, contact Norma Daye or Lisa Rogers at 919-541-7811. To apply, submit curriculum vitae and the names of three references by May 3, 1991 to:

**Norma Daye (Code: HNV27)
NIEHS Personnel Office
PO Box 12233
Research Triangle Park,
NC 27709**

NIH is an Equal Opportunity Employer

PROFESSORSHIP IN ENVIRONMENTAL MOLECULAR BIOLOGY

Rutgers University is recruiting a Professor to lead a new environmental biotechnology program at the Center for Agricultural Molecular Biology (AgBIOTECH), in conjunction with the Department of Environmental Science. The Professor will also be Associate Director for Environmental Studies at the New Jersey Agricultural Experiment Station (NJAES). AgBIOTECH serves the state's agricultural, marine, and environmental industries with expertise in biotechnology. AgBIOTECH currently has six research groups housed in new facilities, along with 15 Environmental Science faculty. AgBIOTECH will grow to 16 research groups and anticipates significant expansion of its environmental program.

Candidates should have demonstrated outstanding research and leadership skills in one of the following fields: bioremediation, degradation of toxic wastes, innovative biological treatments for waste management, monitoring the fate of microbial populations in the environment, and genetic manipulation of microorganisms for environmental objectives.

The successful candidate will develop a productive research program that will attract significant external funding. He/she will recruit new faculty to the environmental biotechnology program and coordinate environmental programs at NJAES. The candidate will advise graduate students and undertake some teaching. He/she will interact with industry and contribute to the development of environmentally responsible policies at the state and local levels.

The position will be split between AgBIOTECH (60%) and the Department of Environmental Science (40%). AgBIOTECH will provide start-up funds and staff support, in addition to a generous salary and benefits package. The position will be tenured in the Department of Environmental Science. Send resume and names of three references to Dr. Peter Day, Center for Agricultural Molecular Biology, Rutgers University, New Brunswick, NJ 08903-0231

THE STATE UNIVERSITY OF NEW JERSEY

RUTGERS

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RESEARCH ASSOCIATE PROTEIN STRUCTURE

Amgen, an innovative leader in the discovery, development and marketing of human therapeutics through applications of biotechnology, has an immediate opportunity for a Research Associate, Protein Structure.

Responsibilities will include sequencing and characterization of natural and recombinant DNA-derived proteins. Candidates should have a BS or MS and experience in protein sequencing, including manipulation of high performance liquid chromatography (HPLC), gas-phase sequencing and SDS polyacrylamide gel electrophoresis.

Amgen offers a stimulating and challenging environment on the leading edge of biotechnology as well as an excellent compensation and benefits package, including equity offerings. If you have the necessary skills and qualifications and would like to be a part of an organization that places a high priority on its human resources, please send a resume, in confidence, to:

AMGEN, INC.
Recruitment, Dept. #578
Amgen Center
Thousand Oaks
CA 91320-1789

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The satisfaction of working at Bio-Rad Laboratories comes from seeing your research quickly become a useful product. It's a feeling of success that we invite you to share as a Group Leader or Sr. Chemist in our Clinical Diagnostics Group.

As a Group Leader, you will be responsible for guiding and directing a chemistry R&D group in expanding our successful line of quality control products. The position requires an MS, PhD or equivalent in a scientific discipline and experience in clinical diagnostic controls development.

Independent in your scope, Sr. Chemists will develop new products and support existing products, conducting studies with limited supervision while planning and executing your own experiments. Your ideas and product proposals will be encouraged. The positions require a minimum BS/BA degree or equivalent in Chemistry, Life Sciences or a related discipline.

To apply, please send your resume to:
Bio-Rad Laboratories, ECS Division, 3726
E. Miraloma Ave., Anaheim, CA 92806,
Attn: Human Resources #145. EOE M/F/H.

BIO-RAD Bio-Rad Laboratories

INDUSTRIAL POST- DOCTORAL POSITION

HELPING OTHERS LIVE A BETTER LIFE

Boehringer Mannheim Corporation is one of the nation's leaders in the field of Medical Diagnostics, Biochemicals and Medical Research. This leadership has been attained through emphasis on quality and team effort. Due to our growth in Research and Development, we are seeking to fill a post-doctoral position in our Indianapolis headquarters.

The individual we seek will do research on Conductive Polymers for Amperometric Biosensors. This one-year project will involve synthesis as well as chemical, material and electrochemical characterization of conductive polymers. Prior research experience in synthetic polymer chemistry and polymer reactions is highly desirable. The selected scientist will be encouraged to file patent applications and publish findings. Potential will exist to extend position to a second year.

Recent Ph.D.'s in Chemistry, Polymer Science and Engineering or Material Science and Engineering are encouraged to respond.

At Boehringer Mannheim, we offer an excellent compensation package including a relocation package. Qualified applicants should send a resume with cover letter, including salary history, for confidential consideration to: Boehringer Mannheim, Dept. P.D., 9115 Hague Road, P.O. Box 50100, Indianapolis, IN 46250. An Equal Opportunity Employer.

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THOMAS JEFFERSON UNIVERSITY

JEFFERSON CANCER INSTITUTE

Carlo M. Croce, M.D., Director

FACULTY POSITIONS IN IMMUNOLOGY. Several faculty appointments are currently available in the recently expanded Department of Microbiology and Immunology. We invite applications from new and established investigators for full time tenure-track positions at any academic rank. Individuals with strong research interests in any area of immunology will be considered. Investigators with research programs in Molecular Immunology are particularly encouraged to apply. The Department currently has research interests in transplantation immunology, autoimmunity, immunogenetics, cell-cell interactions, neuroimmunology, immunoparasitology, tumor immunology, cytokines, and immunoregulation. The research environment is excellent and conducive for active interactions within the Department and with other members of the Jefferson Cancer Institute. The University itself is located in the vibrant historical downtown area of Philadelphia. Please send curriculum vitae, research plans, and the names and addresses of three references to:

Dr. Robert Korngold
Department of
Microbiology and Immunology
Jefferson Medical College
1020 Locust Street
Philadelphia, PA 19107-6799

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RNA COMPUTATIONAL BIOLOGIST

The University of Colorado at Boulder seeks a Ph.D. to work in a non-tenure track position in the Departments of Chemistry/Biochemistry and Molecular, Cellular, & Developmental Biology. The Departments are extensively involved in research aimed at novel binding and enzymatic functions of RNA as well as structural analyses of RNA through NMR and diffraction, and are seeking to build a computational group that complements the molecular and physical groups.

Applicants should have a considerable background in biology/molecular biology with experimental experience, general theoretical biology/computational biology with several years of research experience, programming languages (in particular fortran & C), and several years working experience with both VMS and UNIX systems. The primary interest of the candidate must be aimed toward 2- and 3-dimensional RNA structure determinations, from both a computational and experimental perspective. The candidate should have a wide expertise in sequence and structure analysis methods including phylogenetic comparisons, and be concerned with both thermodynamic and kinetic aspects of RNA structure formation. Furthermore, the ideal candidate should have demonstrated research experience in a large spectrum of RNA studies and a proven ability to provide biological interpretations to the results of laboratory and computational experiments. The research program will include frequent interactions with a large group of molecular and physical biologists, as well as interactive experimental programs in which predictions are tested in order to generate more accurate predictive methodologies.

In addition to a Ph.D., the candidate should have more than one year of related postdoctoral experience, relevant publications, and a demonstrated ability to collaborate with others. Salary will be commensurate with experience. Please send resume to: **Dr. Larry Gold, Chairman, Department of MCD Biology, University of Colorado, Boulder, CO 80309-0347.** Applications must be received by April 30, 1991.

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.

ASSISTANT PROFESSOR IN TUMOR VIROLOGY

The Department of Biochemistry, University of Medicine & Dentistry of New Jersey-Robert Wood Johnson Medical School seeks applicant as Assistant Professor in Tumor Virology to perform studies on neoplastic transformation by nuclear oncogenes and the role of their cellular homologs in the regulation of gene expression, cell growth and differentiation. Requires use of retroviral-mediated gene transfer, in vitro cell culture and transformation, tumorigenicity assays with laboratory animals, and recombinant DNA techniques. Conducts an independent research program. Teaches medical and graduate students in Biochemistry/Molecular Biology and Microbiology programs. Requires PhD in Microbiology/Biochemistry. Two years' experience in job offered or 2 years' as Post-Doctoral Research Fellow in retrovirology and oncogenic transformation. Must have strong record of publication in refereed journals and evidence of successful review by scientific peers in competition for fellowships, grants or honorific awards. Salary: \$47,250.

Send resumes, transcripts, reprints of published articles and the names of 3 references to: **Dr. Masayori Inouye, Chairman of Biochemistry, Position: Assistant Professor/Tumor Virology, UMDNJ-Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635.** The UMDNJ is an Affirmative Action/Equal Employment Opportunity Employer, m/f/h/v, and a member of the University Health System of New Jersey.



RESEARCH SCIENTISTS Biotechnology Research and Development

5 Prime→3 Prime, Inc.® is a privately held biotechnology company located in Boulder, Colorado, that develops and markets products for life science and molecular biology research. We are seeking experienced scientists to participate in the development of novel research methods and technologies. The positions offer a challenging opportunity with a rapidly growing company.

Ph.D., M.S., and B.S. Level Positions in Technology Development

Positions are available for energetic, creative scientists with in-depth training in Molecular Biology and hands-on laboratory experience in recombinant DNA techniques. A minimum of two years experience in molecular biology and biochemistry are required. Experience in basic gene cloning and mammalian tissue culture is essential. Familiarity with a variety of cDNA cloning and gene expression in prokaryotic and/or eukaryotic systems is highly desirable.

5 Prime→3 Prime, Inc. offers a dynamic research environment, the opportunity for high visibility and career growth. If you are creative, innovative and would like to see the results of your research used by researchers world-wide, send your C.V. and three references to:

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5603 Arapahoe
Boulder, CO 80303



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DIRECTOR

Program in Human Genetics
The University of Chicago

The Division of Biological Sciences of The University of Chicago is soliciting nominations and applications for the position of Director for a Center for Human Genetics, one of five biomedical research centers to be located in the institute for Molecular Medicine, housed within the Jules Knapp Research Building. The other research centers will be devoted to the study of molecular cardiology, immunology, neurobiology and molecular oncology. The Center will have 10,000 square feet of newly constructed research space which has been planned to house six investigators. The Director will be responsible for the development of this program and for recruitment of the five additional Center faculty members who will have primary academic appointments in an appropriate department. Funding is available for the establishment and initial support of this major new research program. The activities of the Center will complement ongoing programs in human genetics in many departments at The University of Chicago. Ph.D. degrees in genetics are offered through an interdepartmental Committee on Genetics. Please address expressions of interest and suggestions, accompanied by resumes and other relevant information (closing date: July 1, 1991) to:

Dr. Anthony P. Mahowald
Chairman, Search Committee
Molecular Genetics and Cell Biology
920 E. 58th Street
Chicago, IL 60637

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Universität Heidelberg

The ZENTRUM FÜR MOLEKULARE BIOLOGIE HEIDELBERG (ZMBH) at the University of Heidelberg (FRG) invites applications from scientists for a five year

GROUP LEADER POSITION.

The successful candidate will have the opportunity to establish an independent research group. It is expected that his research program will contribute to the ZMBH's research activities which focus on

- mechanisms of gene regulation and development
- molecular neurobiology
- molecular mechanisms of pathogenicity.

The holder of the position is expected to participate in the department's teaching program.

The ZMBH presently houses 16 independent research groups and offers excellent central facilities which include biocomputing, DNA- and peptide synthesis, protein microsequencing, animal quarters and centralised administrative services.

Further details may be obtained from Prof. Heinz Schaller, telephone 49-6221-566850, telefax 49-6221-565507.

Applications should be sent to the Direktorium of the ZMBH, Im Neuenheimer Feld 282, D-6900 Heidelberg, FRG by 19.04.1991.

PURIFICATION DEVELOPMENT

Synergen, Inc., a growing protein-based biopharmaceutical company in Boulder, Colorado, seeks a Scientist with experience in Protein Purification/Process Development. This position is responsible for the development of large-scale purification methods for recombinant proteins, and analytical techniques to monitor product quality. The successful candidate will have the opportunity to interact closely with members of the process engineering, analytical services and R&D groups. This position requires a Ph.D. and 2-5 years of postdoctoral experience. Previous experience with large-scale purification techniques is highly desirable.

Synergen offers competitive salaries, generous benefits and the financial stability required for future development. Please send a CV or resume to: **Director of Recruitment, Box PS, 1885 33rd Street, Boulder, CO 80301.** Synergen is an Equal Opportunity Employer.



R.W. JOHNSON
PHARMACEUTICAL
RESEARCH
INSTITUTE

Postdoctoral Positions

The R.W. Johnson Pharmaceutical Research Institute in La Jolla, CA has openings for two-year appointments for Postdoctoral Fellows with an option for renewal.

Positions are available in the Molecular Biology, Cell Biology, and Vascular Biology groups. Positions in Molecular Biology require a knowledge of humoral and cellular immunology as well as an interest in molecular approaches to immune therapy and/or immune tolerance. Strong background in gene cloning/expression is preferred. The position in the Cell Biology group will investigate cellular events activated by monocyte exposure to lipopolysaccharide. The position in Vascular Biology involves the study of integrin structure/function relationships.

The R.W. Johnson Pharmaceutical Research Institute is part of the Johnson & Johnson family of companies and offers a competitive salary and benefits package. Please send your resume to:

Human Resources Manager
R.W. Johnson Pharmaceutical Research Institute
3535 General Atomics Ct., Suite 100
San Diego, CA 92121

An Equal Opportunity Employer

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN MOLECULAR BIOLOGY/BIOCHEMISTRY UNIVERSITY OF MICHIGAN

Two postdoctoral positions are available to study the molecular basis of skin function. Position 1 involves study of signaling pathways that regulate growth and differentiation of human skin cells (keratinocytes). Areas of interest include: (i) transcriptional regulation, (ii) PK-C isozymes, (iii) growth factors and cytokines, and (iv) retinoic acid receptors. The second position involves study of the enzymology of vitamin A metabolism in human skin. Areas of interest include characterization, regulation, and molecular cloning of the enzymes involved in retinoic acid metabolism. Funding is available for at least 3 years with a possibility of long-term employment. Send curriculum vitae, including fields of interests, to:

John J. Voorhees, M.D.
Professor and Chairman of Dermatology
1301 East Catherine
Kresge I, R6558
Ann Arbor, MI 48109-0528

The University of Michigan is a nondiscriminatory Affirmative Action Employer.

POSTDOCTORAL POSITIONS. In molecular genetics, viral pathogenesis, immunogenetics, and cellular immunology. Three-year funded positions available in two interacting laboratories with an outstanding research environment. Research centers on molecular mechanisms of MHC diversification, structural basis of class I antigen presentation, role of class I molecules in Theiler's virus-induced demyelinating disease (a mouse model for MS), and role of T cells in resistance to disease and in pathogenesis. Competitive stipends and outstanding benefits. Address inquiries (including curriculum vitae and names of three references) to: **Larry R. Pease, Ph.D.** (molecular biology and immunogenetics), or **Moses Rodriguez, M.D.** (viral pathogenesis and cellular immune basis), Department of Immunology, Mayo Clinic, Rochester, MN 55905. Mayo Foundation is an Affirmative Action/Equal Opportunity Educator and Employer.

POSITIONS OPEN

POSTDOCTORAL POSITIONS IN GENE THERAPY

Somatix Therapy Corporation is a leading biotechnology company developing programs in gene therapy and cellular transplantation. Postdoctoral positions are available for recent Ph.D.'s to work in the area of retroviral-mediated gene transfer in mammalian cells. Candidates should have experience with retroviruses, primary cell culture, and recombinant DNA techniques. Please submit curriculum vitae to: **Department #19, Personnel Department, Somatix Therapy Corporation, 850 Marina Village Parkway, Alameda, CA 94501. Equal Opportunity Employer.**

POSTDOCTORAL POSITIONS. National Research Council Associateships available for research on microbial pathogenesis, host resistance, and immunity to infections including anthrax. Project areas include molecular approaches to study the role and mechanisms of action of toxins, capsule, and other plasmid- or chromosome-encoded factors in virulence and immunity; cell biology of macrophage function including phagocytosis and endocytosis, antigen processing, mechanism of action of adjuvants and vaccine development; and mechanisms of innate and acquired resistance to *B. anthracis*. Candidates with a Ph.D. degree in the areas of microbiology, molecular biology, cell biology, or immunology are invited to apply. Send curriculum, names of three references, and a statement of research interests to: **Dr. Susan Welkos or Dr. Arthur M. Friedlander, Bacteriology Division, U.S. Army Medical Research Institute of Infectious Diseases, Ft. Detrick, Frederick, MD 21702. Telephone: 301-663-7341.**

POSTDOCTORAL RESEARCH ASSOCIATE

Postdoctoral position for a molecular/cellular biologist to join well-funded immunology laboratories studying molecular regulation of cytokines and their receptors in both the immune and central nervous systems. Salary: \$25,000 per year. Send curriculum vitae and transcripts to: **Dr. Keith Kelley, University of Illinois, 207 PABL, 1201 West Gregory Drive, Urbana, IL 61801. Telephone: 217-333-5141. FAX: 217-244-5617.**

POSITIONS OPEN

POSTDOCTORAL POSITION FRED HUTCHINSON CANCER RESEARCH CENTER

A postdoctoral position is available to study the molecular genetics of the HLA class I region. We have recently completed the isolation and characterization of YAC clones spanning this region. Studies will emphasize the identification of linked genes including specific disease-associated loci. Several avenues of inquiry are possible, allowing for the opportunity to choose studies compatible with one's abilities and ambitions. Candidates best suited for this position will have a Ph.D. and a strong background in molecular biology or biochemistry. The Hutchinson Center is a multidisciplinary research center with an outstanding scientific environment. Seattle and the surrounding area provide an exceptional living situation. Please send curriculum vitae, a brief summary of research experience, and the names of two references to:

Fred Hutchinson Cancer Research Center
Dr. Daniel E. Geraghty
1124 Columbia Street, M718
Seattle, WA 98104
Smoke-free environment.
An Equal Opportunity Employer.

POSTDOCTORAL POSITION. Available immediately to study factors affecting proteolysis in bacteria. Specific points of interest include stabilization of eukaryotic proteins synthesized in bacteria, enzymes responsible for protein breakdown, mutations that alter protein breakdown, and changes in protein breakdown related to growth conditions. Requires Ph.D. plus laboratory experience in molecular biology and molecular cloning. The salary range is \$20,000 to \$25,000 per annum commensurate with experience.

Interested candidates, please forward your curriculum vitae and the names of three references to: **Dr. Lee Simon, Waksman Institute, Rutgers, The State University of New Jersey, P.O. Box 759, Piscataway, NJ 08855-0759.**

Affirmative Action/Equal Opportunity Employer.

United States Department of Agriculture

Postdoctoral Research Associates

The Agricultural Research Service as the principal scientific research agency of USDA, conducts research to solve technical food and agricultural problems of broad scope and high national priority. The agency's work is carried out under six specific research objectives—conservation of national resources, crop production and protection, animal production and protection, human nutrition, postharvest research, and integration of management systems. Overall aim of ARS research is to ensure the continuation of an adequate supply of food and fiber of high quality to meet the needs of American people and for export.

ARS is currently recruiting for 150 postdoctoral positions throughout the country. Opportunities exist in many research areas, including:

- Human Nutrition
- Genetics
- Immunology
- Virology
- Biochemistry
- Chemistry
- Microbiology
- Animal Science
- Entomology
- Plant Physiology
- Plant Pathology
- Agronomy
- Soil Science
- Engineering



Successful candidates will be hired initially for up to 2 years in duration. Salary for these GS-11/12 positions (\$31,116 to \$37,294) will be based on qualifications and experience.

For written descriptions of positions and application procedures, write to:

N.L. Bakes
Personnel Division (S)
USDA/ARS
6305 Ivy Lane, Room 129A
Greenbelt, MD 20770

or call:
Ms. Kim Conley
(301) 344-2796

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DISCOVER GLYCOTECHNOLOGYSM

Glycomed Incorporated is exploring carbohydrates for novel drug agents, using the most advanced analytical, synthetic and cell biology research technology available. We are researching a rapidly expanding list of pharmaceutical products, including cardiovascular agents, anti-inflammatories and antivirals. Currently, we have the following positions available:

SECTION HEAD/Biochemistry and Glycosaminoglycans Direct research programs involving isolation and structural analysis of complex carbohydrates, specifically glycosaminoglycans. Requires PhD in Biochemistry or Cell Biology and extensive background including publications in biochemistry related to complex carbohydrates, with special emphasis in proteoglycans and glycosaminoglycans. **Job #140-2911.**

SCIENTIST/Cell Genetics Focus on enzyme-assisted synthesis of carbohydrates. Requires PhD in Molecular Biology, Biochemistry or related area; experience with glycosyltransferases/glycosylhydrolases, production of recombinant enzymes, or design of specific enzyme inhibitors desirable. **Job #170-2911.**

SCIENTIST/Glycoproteins Develop affinity purifications of both bioactive carbohydrates and specific glycoproteins. Requires PhD in Biochemistry or related field and 3+ years' relevant postdoctoral experience in enzymology, assay development and kinetic modeling/analysis. Carbohydrate expertise preferred. **Job #143-2911.**

SCIENTIST/Analytical Chemistry Analyze complex carbohydrates using the Finnigan MAT-900, TSQ-70 and ITD instruments. Requires PhD in Organic Chemistry or Biochemistry, knowledge of mass spectrometry techniques for carbohydrate characterization, and experience in derivatization chemistry and chromatographic techniques. **Job #120-2911.**

POSTDOCTORAL SCIENTIST/Analytical Chemistry Perform 1D- and 2D- NMR experiments of oligosaccharides, glycopeptides and glycolipids, and analyze data. Requires PhD in Physical Chemistry or Molecular Biophysics and 2+ years' experience in conformational studies of carbohydrates by NMR and molecular modeling techniques. Familiarity with UNIX/VAX VMS operating systems preferred. **Job #120-2912.**

SCIENTIST/POSTDOCTORAL SCIENTIST/Cell Biology Analyze receptor-ligand interactions, design and perform experiments to characterize affinities, and investigate biology of carbohydrate binding proteins and ligands. Requires PhD with 1+ year of

postdoctoral work, and experience in cell surface receptors and standard receptor binding studies, including ELISAs, RIAs and Scatchard analysis. **Job #130-2911.**

RESEARCH ASSOCIATE/Synthesis/Organic Chemistry Assist in the multi-step synthesis of oligosaccharides of biological importance. Requires BS/MS in Chemistry or related field and 2+ years' experience in synthetic organic chemistry. Experience using NMR, Mass Spectrometer and HPLC desired. **Job #110-2911.**

RESEARCH ASSISTANT/ASSOCIATE/Microbiology-Immunology Provide assistance in set-up and performance of antiviral assays, cell culture and virus production. Requires BS/MS in Microbiology, Molecular Biology or related discipline; experience in virology and viral assay systems preferred. **Job #150-2911.**

RESEARCH ASSISTANT/ASSOCIATE -Glycolipids Prepare glycolipids and glycoproteins from cells and tissues. Requires BS/MS in Biochemistry, Chemistry or related discipline; experience with techniques for isolation and characterization of glycoconjugates preferred. **Job #142-2911.**

RESEARCH ASSISTANT/Biochemistry Isolate, analyze and maintain catalog of complex carbohydrates with biological activities. Requires BS in Biochemistry, Chemistry or Biology. **Job #140-2912.**

RESEARCH ASSISTANT/Cell Biology Maintain laboratory by preparing media and reagents and performing ELISA and RIA assays, cell adhesion assays, radiation surveys, and cell culture. Requires BS with 2+ years' lab experience performing ELISA and RIA assays, and experience with cell culture techniques. **Job #130-2912.**

MANAGER OF CORPORATE DEVELOPMENT Working in our Operations Department, you will coordinate the company's efforts to establish strategic alliances, and be responsible for preparing technology assessment. PhD in a scientific discipline required; MBA desirable. Must have technical training/experience in relevant R&D field, and at least 2 years' experience in licensing and technology assessment at a pharmaceutical company. **Job #2-2911.**

Glycomed offers a competitive compensation and benefits package, including stock options. Please send your resume, indicating appropriate Job #, to: Manager of Human Resources, 860 Atlantic Ave., Alameda, CA 94501. EOE.





Clinical Biology Research Scientist

CIBA-GEIGY Pharmaceuticals Division enjoys a distinguished reputation for progressive scientific research and new product development. To further enhance our efforts, we seek a Research Scientist to contribute to our innovative research team at our 100-acre headquarters in Summit, New Jersey.

Successful candidate will collaborate with biologists and clinicians to develop novel methods (in vivo/ex vivo) of detecting organ dysfunction based on Magnetic Resonance Spectroscopical changes. Responsibilities will include the biological application of NMR Spectroscopy, particularly isolation, preparation and evaluation of perfused organs with multiple nuclei.

To qualify, you will need a PhD in Physics with major emphasis on NMR research. A minimum 1-3 years experience in the biological application of NMR Spectroscopy is required.

In return, we provide a competitive salary, comprehensive benefits, as well as the opportunity for personal and professional growth. For consideration, please forward resume with salary history and requirements to: **Al Aronson, Staffing Center, CIBA-GEIGY Corporation, Pharmaceuticals Division, Dept 313, 556 Morris Avenue, Summit, New Jersey 07901.** We Are An Equal Opportunity Employer M/F/H/V.

Science Serving Mankind

CIBA-GEIGY

C. R. Bard, Inc., a leading multinational developer and manufacturer of medical devices, has a Sr. Research Scientist position available for an experienced Research Biochemist or Material Scientist.

In this position, you will plan and coordinate the development of new implant products and the modification of existing products. Ideal candidate will have:

- Ph.D. degree or equivalent in the sciences or M.D.-Ph.D.
- Three to eight years of postdoctoral or industrial research experience in biological receptor sites, peptide hormones, enzymology, polysaccharide/protein chemistry, or hydrophilic biomaterials.
- Experience with controlled release of biologicals or pharmaceuticals.
- Technical liaison experiences with research institutes.
- Knowledge of organic/bio-chemistry, cell biology, physiology, histology, pharmacology or animal study.
- Excellent communication and interpersonal skills.
- Project management experience desirable.

We offer a competitive salary, extensive benefits and a stimulating professional environment. Please forward your resume indicating salary history to: Ms. Pat Hanigan, Corporate Director of Personnel, C. R. Bard, Inc., 730 Central Avenue, Murray Hill, NJ 07974. Principals only and no phone calls, please.

C. R. Bard, Inc. believes in a safe and secure workplace. As a result, we utilize drug testing as a condition of employment.

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

BARD

THOMAS JEFFERSON UNIVERSITY

Jefferson Cancer Institute,
Carlo M. Croce, M.D., Director
offers Ph.D. training in

**Molecular Genetics, Immunology, Microbiology,
Molecular Pharmacology and Structural Biology**

Students will take a common core curriculum consisting of courses in biochemistry, molecular biology and cell biology, followed by specialized courses in their particular area of concentration, leading to a Ph.D. degree in Genetics, Microbiology/Immunology, or Pharmacology. Facilities include oligonucleotide synthesis and automated DNA sequencing, peptide synthesis and microsequencing, cytometry and transgenic mouse production, two-dimensional nuclear magnetic resonance, X-ray crystal structure analysis, molecular modelling and graphics, utilizing high performance Silicon Graphics and Convex computers.

Current areas of research interest of the faculty include:

Molecular genetics of growth control, oncogene activation and cancer suppression (Drs. David Abraham, Renato Baserga, Timothy Block, Arthur Buchberg, Bruno Calabretta, Eli Canaan, Linda Cannizzaro, Mann-Jy Chen, Carlo Croce, Garrett DuBois, David Jensen, Robert Korngold, Danuta Kozbor, W. Edward Mercer, Veena Rao, E. Shyam Reddy, Linda Siracusa, and Tapan Som)

Genome structure and transcriptional and developmental regulation (Drs. Martyn Darby, Tadaatsu Goto, Kay Huebner, Eric Kmiec, Alexander Mazo, and Laura Steel)

Molecular and structural biology of receptors and signal transducers (Drs. Jeffrey Benovic, Catherine Calkins, Thomas Frielle, Robert Harrison, Bradford Jameson, Madhu Kalia, James Keen, Gerald Litwack, Bice Perussia, Wolfgang Vogel, and Irene Weber)

Thomas Jefferson University has an excellent library system and is located in an attractive and historic part of Center City Philadelphia. Recreational facilities including gyms and a full-size pool are available on the campus. Students accepted into the program will be provided with predoctoral support including waiver of tuition and a stipend of \$14,000 per year. For interested and qualified students, an M.D./Ph.D. program is available.

For further information regarding September 1991 entrance call **Joanne Balitzky** at (215) 221-2399 or write:



Thomas
Jefferson
University

Joint Graduate Programs
College of Graduate Studies
Thomas Jefferson University
1020 Locust Street
Philadelphia, PA 19107-6799

TECHNICAL SUPPORT AND MARKETING SPECIALIST

Axon Instruments, Inc., the world leader in design and manufacture of research instrumentation and software for electrophysiology and biophysics, is looking for a bright, motivated person to join the **Marketing and Technical Support (MTS)** department.

In this position you will provide technical support of Axon software and associated hardware products to the scientific community worldwide. You will troubleshoot complex technical problems, demonstrate Axon products at scientific meetings, perform alpha tests of new products, write and edit manuals, brochures and newsletters, and contribute to market research, marketing and advertising of Axon products.

Requirement: Ph.D./M.S. or equivalent in electrophysiology, biophysics or physiology with hands-on experience using electrophysiological software and hardware. Two years of industrial experience is desirable. Hands-on knowledge of Axon or similar products is desirable. Must possess excellent verbal and writing skills.

Please send your resume to: SMTS

Axon Instruments, Inc.

1101 Chess Drive
Foster City, CA 94404

CANCER PREVENTION FELLOWSHIP PROGRAM

The Division of Cancer Prevention and Control (DCPC) is accepting applications for the Cancer Prevention Fellowship Program (CPFP). The purpose of this program is to attract individuals from a multiplicity of health science disciplines into the field of cancer prevention and control. The program provides for: Master of Public Health training (new feature); Participation in the DCPC Cancer Prevention and Control Academic Course; Working at NCI directly with individual preceptors on cancer prevention and control projects; Field assignments in cancer prevention and control programs at other institutions. Funding permitting, as many as ten Fellows will be accepted for up to three years of training, beginning July 1, 1992 (date may vary for M.P.H. applicants). Benefits include selected relocation and travel expenses, paid federal holidays, and participatory health insurance.

ELIGIBILITY

M.D. or D.D.S. from a U.S., territorial, or Canadian Medical School or equivalent experience. Foreign medical graduates must have current ECFMG/FMGEMS certification and appropriate experience, e.g., one year residency in a training program approved by the Accreditation Council for Graduate Medical Education.

OR

Ph.D., Dr. P.H. or other doctoral degree in a related discipline (epidemiology, biostatistics, and the biomedical, nutritional, public health or behavioral sciences) or equivalent experience. Foreign education must be comparable to that received in accredited U.S., territorial, or Canadian institutions.

PLUS

U.S. citizenship or resident alien eligible for citizenship within four years.

For details and application catalog send a postcard or letter with your name and home address to:

Douglas L. Weed, M.D., M.P.H., Ph.D., Director, Cancer Prevention Fellowship Program, Division of Cancer Prevention and Control, National Cancer Institute, Executive Plaza South, T-41, Bethesda, MD 20892.

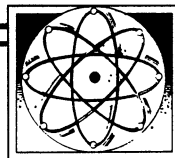
Further Inquiries: Mrs. Barbara Redding (301) 496-8640 or 496-8641

**Deadline For Receipt of
Applications:
SEPTEMBER 1, 1991**

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Sigma Chemical Company is beginning a new decade of success. Backed by 40 years of experience, the future looks brighter than ever. The world's foremost supplier of research and organic chemicals as well as the leader in development of diagnostic kits and reagents, SIGMA is strategically positioned on the leading edge of the biomedical industry.

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To explore an opportunity in our state-of-the-art environment, please stop by our booth at the **FASEB Conference** or send your confidential resume to: **Personnel Manager, SIGMA CHEMICAL COMPANY, Position FSB, P.O. Box 14508, St. Louis, MO 63178.** An Equal Opportunity Employer.

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Current Postdoctoral Opportunities Biomedical Sciences Two Year Term Appointments

The Biomedical Sciences Division of the Lawrence Livermore National Laboratory has two postdoctoral research positions available to work within the context of the human genome initiative on the development of physical mapping technologies. In addition, both candidates will be responsible for the integration of physical mapping data for defined regions on human chromosomes 2 or 19.

One postdoctoral position will involve the design and implementation of strategies to prepare a contig map of human chromosome 2 using a combination of cosmids, YACs, P1 clones and hybrid cell lines. This approach will largely be based on a recently developed Alu-PCR/hybridization approach, which permits rapid correlation of overlapping clones and hybrids. Other mapping reagents will consist of probes and PCR markers derived from microdissected chromosome 2.

The second position will focus on the closure of the cosmid contig map of human chromosome 19. The approach to close gaps in the contig map will largely be based on the use of YACs to link neighbouring cosmid contigs. YACs will be identified with a variety of PCR and hybridization procedures.

Both positions require a PhD in Genetics, Molecular Biology or Cell Biology, with extensive experience in recombinant DNA, PCR and/or pulsed field electrophoresis. Experience with YAC or P1 cloning and analysis is desirable. Contact: **Dr. Pieter J. de Jong, (415) 423-8145.** The Biomedical Sciences Division offers a wide variety of excellent research and computational facilities in addition to a highly competitive salary and benefits package. Interested applicants are invited to send their curriculum vitae to: **Phil Harding, Professional Employment Division, Lawrence Livermore National Laboratory, P.O. Box 808, Dept. A91154BS, L-725, Livermore, CA 94550.** Equal Opportunity Employer. U.S. citizenship desired, but not required.

University of California

 **Lawrence Livermore
National Laboratory**

POSITIONS OPEN

ECOLOGIST

POSTDOCTORAL POSITION in Costa Rica, La Selva Biological Station, for ecologist with strengths in plant physiology, soils and plant nutrition, or plant pathology. Project involves study of impacts of plant longevity and stand diversity on ecosystem processes in plantations. Send curriculum vitae and have three letters of recommendation sent to: **John J. Ewel, Department of Botany, 220 Bartram Hall, University of Florida, Gainesville, FL 32611. Telephone: 904-392-1468. FAX: 904-392-3993.**

POSTDOCTORAL ASSOCIATE POSITION

Available immediately to study molecular mechanisms of thrombosis in animal models. Peptide and antibody probes of thrombotic interactions between platelets and streptococci in the circulation will be analyzed by radio-scintigraphic imaging and cardiovascular physiological techniques. Position requires a Ph.D. or M.D. degree. Strong background in cardiovascular physiology or molecular immunology is desired. Send curriculum vitae, statement of research interests and goals, and three letters of reference by 28 April 1991 to: **Dr. Mark C. Herzberg or Dr. Maurice W. Meyer, Department of Preventive Sciences, School of Dentistry, University of Minnesota, Minneapolis, MN 55455. The University of Minnesota is an Equal Opportunity Educator and Employer.**

POSTDOCTORAL POSITIONS WALTHER ONCOLOGY CENTER INDIANA UNIVERSITY SCHOOL OF MEDICINE

Postdoctoral positions are available to study the regulation of colony-stimulating factor-1 gene expression and transcript processing in mature and developing tissue.

Candidates with experience in cell culture and molecular biology preferred. Send curriculum vitae and names of three references to:

**Dr. Maureen A. Harrington
Walther Oncology Center
Indiana University School of Medicine
Room 549, 975 West Walnut Street
Indianapolis, IN 46202-5121**

Walther Oncology Center is an Equal Opportunity Employer.

POSTDOCTORAL POSITION, HOMOLOGOUS RECOMBINATION IN MAMMALS. A position is available immediately to study the basic mechanisms of homologous recombination in mammalian cells. Research topics include, but are not limited to: (i) development of strategies to improve the efficiency of gene targeting, (ii) regulation of chromosomal rearrangements, and (iii) purification/characterization of proteins involved in recombination. Applicants should have a strong background in molecular biology, mammalian molecular genetics, and/or biochemistry. Please send curriculum vitae and the names and addresses of three references to: **Dr. Alan S. Waldman, Walther Oncology Center, Indiana University School of Medicine, 975 West Walnut Street, Indianapolis, IN 46202-5121.**

POSTDOCTORAL POSITION

Immediate opening available to investigate the survival strategies of an intracellular parasite (*Leishmania*) at the molecular and biochemical levels. Send curriculum vitae, brief statement of career goals, and names of three references to: **Dr. Antony J. Mukkada, Department of Biological Sciences, University of Cincinnati, Cincinnati, OH 45221-0006. Telephone: 513-556-9700; FAX: 513-556-5299.**

POSTDOCTORAL POSITION. Investigate the characteristics, transcriptional regulation, and tissue-specific expression of steroidogenic enzymes. Candidates should have Ph.D. in molecular biology, biochemistry, or genetics. Experience in DNA cloning, sequencing, site-directed mutagenesis, DNA-protein interaction, and PCR desirable. Please send curriculum vitae and names of three references to: **Dr. Anita H. Payne, Steroid Research Unit, L1221 Women's Hospital, University of Michigan, Ann Arbor, MI 48109-0278. A nondiscriminatory Affirmative Action Employer.**

POSITIONS OPEN

POSTDOCTORAL POSITION IN MOLECULAR BIOLOGY. The Laboratory of Receptor Biology has an opportunity to study the molecular biology of prostatic cancer. Experience with cell biology, recombinant DNA technology, and growth factors is preferred. Ongoing studies include the interactions of growth factors and inhibitors, and induction of differentiation. Interested candidates should send their curriculum vitae with names of three references to: **Dr. John Mendelsohn, Department of Medicine, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Telephone: 212-639-5868. An Equal Opportunity/Affirmative Action Employer.**

POSTDOCTORAL FELLOWSHIPS CLINICAL CHEMISTRY WASHINGTON UNIVERSITY

We are recruiting individuals with the M.D. and/or Ph.D. degree with a strong motivation for training in both clinical chemistry and the basic sciences. Our unique program, now in its 14th year, provides the opportunity for training in academic clinical chemistry, together with basic research in one of the largest Laboratory Medicine Divisions in the country. Current areas of faculty interest include human antibody V region repertoire to carbohydrate and protein antigens, effect of lymphokines on B cell development, rapid diagnosis of myocardial infarction, mechanism(s) of insulin secretion, placental transport of nutrients and electrolytes, association behavior of multi-subunit proteins, structure-function relationships for factor X, and molecular mechanisms of cell adhesion. Two to three candidates are generally accepted per year. For further information please contact: **Jack Ladenson, Ph.D., or Mitchell Scott, Ph.D., Division of Laboratory Medicine, Washington University School of Medicine, 660 South Euclid Avenue, Box 8118, St. Louis, MO 63110.**

The Saskatchewan Research Council (SRC) invites applications from suitably qualified candidates for an NSERC-sponsored Industrial **RESEARCH FELLOWSHIP**, to undertake research in animal molecular and immunogenetics. Candidates must meet the requirements for NSERC grants and must possess their doctorate. The SRC will provide a minimum stipend of \$30,000 per annum, with the start date to be within 3 months of the selection of a suitable candidate and the awarding of NSERC funding. Applications in the form of curriculum vitae and the names of two academic referees should be submitted to: **Dr. Gerry Kraay, Saskatchewan Research Council, 15 Innovation Boulevard, Saskatoon, Saskatchewan S7N 2X8, Canada. The SRC is committed to Employment Equity.**

POSTDOCTORAL FELLOW POSITIONS in neuroscience at the Addiction Research Center. Topics of research include: characterization and purification of drug and neurotransmitter receptors; cocaine receptors; neurotransmitters of reward and addiction; effects of drugs on neurotransmitter systems. Salaries range from \$29,000 to approximately \$49,000 depending on experience and qualifications. Benefits and relocation expenses may be available. Previous postdoctoral experience desirable but not necessary. Send curriculum vitae to: **Dr. Michael J. Kuhar, NIDA Addiction Research Center, P.O. Box 5180, Baltimore, MD 21224. The Alcohol, Drug Abuse and Mental Health Administration is an Equal Opportunity Employer. ADAMHA is smoke-free and drug-free.**

POSTDOCTORAL/RESEARCH ASSOCIATE

Research position available 1 July 1991 in the area of neuropharmacology of drugs of abuse and brain reinforcement mechanisms. Specific projects involve the use of functional imaging techniques (regional cerebral blood flow, receptor binding autoradiography), electrophysiology, and behavioral procedures, such as drug self-administration and brain stimulation reward to determine the sites and mechanisms of action of such drugs of abuse as cocaine and opiates. Candidates should have a demonstrated interest in drug abuse research and experience in relevant areas of neuroscience. Rank and salary dependent upon previous experience. Applicants should submit curriculum vitae and names of three references to: **Elliot A. Stein, Ph.D., Department of Psychiatry, Medical College of Wisconsin, 8701 Watertown Plank Road, MFRC 4026, Milwaukee, WI 53226. Affirmative Action/Equal Opportunity Employer.**

POSITIONS OPEN

SENIOR FELLOW IN IMMUNOLOGY HARVARD MEDICAL SCHOOL

Ph.D. or M.D.; two or more years of postdoctoral experience in applied immunology or biotherapy. To develop novel antibody-based therapeutics (human, chimeric, bifunctional, toxin- and radioantibodies); to study cooperation of cytokines and effector cells in killing. Position supported with technician. Salary: \$30,000 to \$40,000+. Advancement opportunities. Send résumé to: **R. P. Junghans, Ph.D., M.D., Hematology-Oncology, Deaconess Hospital, 185 Pilgrim Road, Boston, MA 02215. Equal Opportunity Employer.**

THE MORRISON MEMORIAL POSTDOCTORAL FELLOWSHIP

The Department of Biochemistry, St. Jude Children's Research Hospital (SJCRH), is enlarging its research efforts in the area of the molecular and cellular biology of signal transduction. As part of this expansion, the Board of Governors has established a memorial fellowship in honor of Dr. Martin Morrison, the founding chairman of the department. The research programs with the department are well equipped and offer recent Ph.D. or M.D. graduates the opportunity to participate in energetic multidisciplinary groups dealing with a range of basic and clinically oriented research. SJCRH offers a competitive stipend and annual review for reappointment. The beginning date of the fellowship is 1 July 1991. Current research programs within the department include:

- **W. Y. Cheung:** Regulatory properties and biological functions of calmodulin, Ca^{2+} -regulated enzymes and other Ca^{2+} -binding proteins.
- **J. Cleveland:** Transcriptional regulatory factors which control myeloid cell cycle progression.
- **J. N. Ihle:** Mechanisms of hematopoietic stem cell growth regulation, differentiation and transformation.
- **S. Jackowski:** Cell cycle regulation of membrane phospholipid biosynthesis.
- **C. Rock:** Role of phospholipid-derived second messengers in growth factor action.

Applicants should submit a brief statement of their research interests, curriculum vitae, reprints, and the names of three references to:

**The Morrison Postdoctoral Fellowship
Department of Biochemistry
St. Jude Children's Research Hospital
332 North Lauderdale
Memphis, TN 38101**

An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL/RESEARCH ASSOCIATE

This position is a dual appointment to McLean Hospital and Harvard Medical School. Experience in molecular neurobiology of proteases—role in cell regulation; signal transduction; and neurodegenerative disease is essential. Interest or background in tissue culture, protein/peptide analytical techniques, or molecular genetics desirable.

Interested candidates, please send curriculum vitae to: **Ralph A. Nixon, M.D., Ph.D., Laboratories for Molecular Neuroscience and Aging Research, Mailman Research Center, McLean Hospital, 115 Mill Street, Belmont, MA 02178. An Equal Opportunity Employer.**

POSTDOCTORAL/RESEARCH ASSOCIATE POSITIONS IN BRAIN METAL PHYSIOLOGY/TOXICOLOGY

Available immediately at the National Institute on Aging, National Institutes of Health, Public Health Service, Bethesda, Maryland, to examine (i) metal localization in postmortem human brain tissue and (ii) metal transport, distribution, and physiologic/toxicologic actions within the central and peripheral nervous systems of small animals in aging and disease. Methods include x-ray microanalysis, atomic absorption spectrometry, inductively coupled plasma-mass spectrometry (ICP-MS), and radiotracer counting. Experience in tissue sectioning and staining helpful. Positions available for up to 3 years with salary commensurate with qualifications. Send applications with curriculum vitae and names of three references to: **Dr. Quentin R. Smith, Laboratory of Neurosciences, National Institute on Aging, National Institutes of Health, Building 10, Room 6C-103, 9000 Rockville Pike, Bethesda, MD 20892. Telephone: 301-496-8970. NIH is an Equal Opportunity Employer.**

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We offer a stimulating work environment on our picturesque campus in a quiet suburb of Bombay, located in close proximity to excellent academic and research institutions. We offer an attractive remuneration package with excellent benefits, including car and accommodation. Applicants should send their curriculum vitae and three letters of recommendation immediately to: Senior Vice-President (Personnel), Godrej Soaps Ltd, Pirojshanagar, Eastern Express Highway, Vikhroli, Bombay 400 079, India. FAX 91-22-204 2238.

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The Lindsley F. Kimball Research Institute of the New York Blood Center has an immediate opportunity available for a **Ph.D. in Biochemistry or Molecular Biology**.

Working under the supervision of the lab head in our Cell Biochemistry Lab, you should have experience and publication record demonstrating innovative and independent research accomplishments. Experience in techniques of enzymology (enzyme purification and characterization, kinetic studies, protein chemistry) and molecular biology required. (DNA library construction) cloning, screening and mutagenesis necessary.

We offer a competitive salary and a comprehensive benefit package. Send CV to: **Manager of Human Resources/LFK, The New York Blood Center, 150 Amsterdam Ave, New York, NY 10023**. Equal opportunity employer M/F/H/V.



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Applications are invited from candidates with backgrounds in protein biochemistry molecular biology or cell biology to participate in research focused on ras-related low molecular mass GTP-binding proteins in mammalian cells. Specific emphasis is placed on defining the influence of post-translational modifications (e.g., isoprenylation) on the functions of these proteins.

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HERMANN-VON-HELMHOLTZ-PROGRAMME

The German Minister for Research and Technology is offering research grants for limited periods in the framework of the promotion programme for neurobiology; this is available to particularly qualified German scientists who would like to return to Germany after at least a one-year research period abroad. This research grant is generally awarded for a period of 2 years. It comprises a position comparable with BAT IIa/Ib and a lump sum for essential materials.

The awarding of the research grant will be carried out on the basis of a selection procedure according to scientific aspects. A leaflet about the research grant and the application forms are available from the responsible office on application:

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POSTDOCTORAL FELLOWSHIP Neurosciences/Biomedical Computing

The Laboratory of Neurosciences of the National Institute on Aging, National Institutes of Health, Public Health Service, seeks a qualified candidate for a postdoctoral fellowship (Staff Fellow/Senior Staff Fellow - Tenure Track) to work in a multidisciplinary team conducting studies of normal and disordered human functional neuroanatomy using positron emission tomography (PET) and magnetic resonance imaging (MRI). This position will be dedicated to the development of new methods for image processing, neuroanatomical localization, statistical analysis, and neural systems modeling. Background in neuroscience, image processing, mathematical modeling, and statistics desired. The position is located at the NIH campus in Bethesda, Maryland. Applicants should send current curriculum vitae and a letter discussing research interests and experience to:

**James V. Haxby, Ph.D.
Laboratory of Neurosciences, NIA
National Institutes of Health
Building 10, Room 6C414
9000 Rockville Pike
Bethesda, MD 20892**



Position information and qualification requirements may be obtained by contacting: Dr. James V. Haxby at (301) 496-5882 or FAX: (301) 402-0595.

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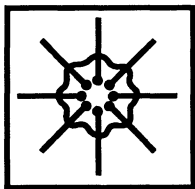
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**The Cytoskeleton and G Proteins: Are There Connections
that Integrate Cellular Signal Transduction?**
M. Rodbell, M.M. Rasenick, A.J. Jesaitis, D.R. Manning

**CONTACT: Organizing Committee,
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PRODUCT DEVELOPMENT ENGINEER

Responsibilities to establish and support downstream membrane and chromatographic processing systems for the purification of protein and peptide therapeutic agents. Familiarity with current downstream process equipment and instrumentation. CIP and SIP procedures and process validation required. An MS or PhD degree in appropriate discipline is also required.

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Responsibilities include isolation and purification of proteins and peptides for amino acid sequence determination using state-of-the-art instrumentation. Peptide mapping and optimization of structural modification strategies and techniques. The successful candidate will have experience with micro protein manipulation techniques and amino acid sequencing/amino acid analysis. Familiarity with commercially available software for protein structure analysis is desirable. An MS or PhD degree in Biochemistry or a related field is required.

ASSOCIATE DIRECTOR BIOCHEMISTRY

Responsibilities include development of protein purification protocols based on chromatographic and membrane technologies for scale up and downstream processing, evaluating protein purity and activities relative to therapeutic strategies, and communicating data both written and oral. The successful candidate will have experience in chromatography or proteins and peptides, membrane processes (microfiltration/ultrafiltration), HPLC techniques, protein chemistry and analytical techniques. A strong publication/patent record is required and strong written and oral skills necessary. Management experience in a pharmaceutical/biotech setting a plus. A PhD in Biochemistry or related field is required.

SCIENTIST/ PRODUCT DEVELOPMENT

You will be required to develop procedures for protein modification according to GMP and GLP guidelines, scale-up operations and analytical method development.

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POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE. NIH-funded position available 1 July 1991 to conduct research on snake venoms. Candidates should have experience with techniques of protein biochemistry. Applications accepted until position filled. Send curriculum vitae, brief description of research experience, and the names of three references to: **Dr. Charlotte L. Ownby, Regents Professor and Head, Department of Physiological Sciences, Oklahoma State University (OSU), Stillwater, OK 74078. Telephone: 405-744-6750. FAX: 405-744-8263. OSU is an Equal Opportunity/Affirmative Action Employer.**

RESEARCH ASSOCIATE IN ONCOLOGY. The incumbent in this position will be responsible for in vivo experiments aimed at assessing the effect of hyperthermia on the pharmacokinetic distribution of platinum-containing anti-cancer compounds. These experiments are part of a large program in which the effects of hyperthermia on chemotherapy and radiation therapy are being assessed. Applicants should have knowledge of cancer biology, mammalian physiology and pharmacology, pharmacokinetics, biochemistry, and immunohistochemistry. Knowledge of cell culture and hybridoma techniques are highly desirable as implementation of these technologies will be forthcoming in the program. The incumbent will also be responsible for identification and pursuit of new areas of investigation in the field of experimental cancer therapy which have the potential to be supported by extramural funds. Minimum requirements: Ph.D. degree in a biologic science; M.D., or D.V.M. desirable. Position availability date: Available immediately. Submit curriculum vitae and three letters of reference to: **Dr. Donald Thrall, College of Veterinary Medicine, North Carolina State University, 4700 Hillsborough Street, Raleigh, NC 27606.**

RESEARCH ASSISTANT. For northeastern Ohio hospital to perform experiments to analyze transport and intracellular processing of monoclonal antibodies in cultured cells, isolated perfused rat liver and intact rats. No experience required in above duties but applicants will qualify with M.S. in biochemistry, cell biology, or experimental pathology (with one graduate course each in biochemistry, cell biology, immunology, and statistics) and 6 months of research experience in protein chemistry, chromatography, electrophoresis, HPLC, and immunochemistry. Monday to Friday, 8:30 a.m. to 5:00 p.m.; \$23,142 per year. *Must have proof of legal authority to work permanently in the United States.* Send résumé in duplicate (no calls) to: **J. Davies, JO#1255673, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

MOLECULAR BIOLOGISTS

Fort Dodge Laboratories, a leader in the veterinary biological and pharmaceutical industry, is expanding its molecular biology program.

Applications are invited for **RESEARCH SCIENTISTS** with experience in cloning, sequencing, PCR, and prokaryotic or eukaryotic expression systems. Experience in infectious disease research or vaccine development is desirable. Openings exist for B.S., M.S., and Ph.D. level graduates in molecular biology.

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PATHOLOGIST/TOXICOLOGIST. An individual experienced with postmortem examination and histopathology in a variety of species and an interest in wildlife toxicology is sought by the U.S. Fish and Wildlife Service. Duties will include diagnosis of diseases and toxicoses in wildlife and consultation with field biologists regarding interpretation of contaminant residues in tissues. *Must be a U.S. citizen.* Full performance level for this federal position is GS-13 (\$44,348 to \$57,650). For information, contact: **Dr. J. Christian Franson, National Wildlife Health Research Center, 6006 Schroeder Road, Madison, WI 53711. Telephone: 608-271-4640. All applicants will be considered without regard to race, creed, color, sex, age, national origin, political affiliation, or any other nonmerit factors.**

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE. Position(s) available in a neuroscience laboratory which studies neurotransmitter release due to pain and analgesia, especially with respect to substance P and excitatory amino acids. Experience doing HPLC, receptor binding, electrophysiology, or in vivo microdialysis is desirable. Ph.D. in biological sciences required. Positions available to start between 1 April 1990 and 15 July 1991. Send curriculum vitae as soon as possible and/or before 31 May 1991 to: **Alice A. Larson, Ph.D., Department of Veterinary Biology, University of Minnesota, 1988 Fitch Avenue, St. Paul, MN 55108.** *The University of Minnesota is an Equal Opportunity Educator and Employer.*

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Experienced professional to participate in development of instrument, data analysis software, and applications methodologies. Must be able to communicate well with engineering and marketing professionals. Excellent presentation skills required. Will travel and make presentations to scientific assemblies. Ph.D. in physical chemistry or related field with related research experience preferred. Send résumé with salary history to: **Beckman Instruments, Professional Staffing, 1050 Page Mill Road, Palo Alto, CA 94304.** *Equal Opportunity Employer.*

MOLECULAR BIOLOGY RESEARCH ASSOCIATE

A position is available for a research assistant or associate familiar with basic genetic engineering techniques, or having a strong background in molecular biology. The individual will participate in cloning and modifying genes of the immune system. A willingness to learn and concentrate is essential. Candidate should possess an M.S. or Ph.D. and relevant experience, or a B.S. with considerable experience and/or graduate training. *Equal Opportunity/Affirmative Action Employer.* Send résumé to:

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FAX: 201-456-7047**

RESEARCH ASSOCIATE. To supervise and conduct research on chemical contamination of groundwater, with particular reference to trace levels of pesticides. Requirements: Ph.D. or Sc.D. in chemistry or environmental chemistry and 2 years of experience as research associate or environmental scientist. Special requirements (first two requirements may be concurrently gained during period of experience and/or education): (i) Research experience in synthetic organic chemistry with direct application to environmental chemistry (2 years); (ii) experience operating gas chromatography and mass spectroscopy and high performance liquid chromatography (2 years); (iii) research publications in pesticide analysis at low concentrations; and (iv) advanced graduate-level coursework in organic and analytical chemistry. Salary: \$30,250 per year. Résumé to: **MDJT, Dick Hewetson (#1-91), 390 North Robert Street, St. Paul, MN 55101.**

ESTUARINE SCIENTIST

The University of Georgia's Marine Institute announces an opening, beginning 1 September 1991, at the **ASSISTANT RESEARCH SCIENTIST** level in the field of salt marsh estuarine studies. The position is a 9-month salaried appointment to the permanent research faculty with no teaching requirements and is not tenure track. Salary may be supplemented up to 30% through grant funding. The successful candidate is expected to develop a vigorous research program in estuarine science and to interact with current staff.

The Marine Institute is located on Sapelo Island, Georgia, and residence on the island is expected. The island is undeveloped and offers ready access to a wide variety of research sites: extensive cordgrass marshes, tidal rivers and creeks, blackwater rivers, nearshore sandy and soft coral habitats, etc.

Interested individuals should send curriculum vitae, names of three references, and a one-page statement of research goals to: **Dr. James J. Alberts, Director, University of Georgia Marine Institute, Sapelo Island, GA 31327.** Deadline for applications is 15 June 1991.

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POST DOCTORAL FELLOWSHIPS

The Biophysics Group (P-6) of Los Alamos National Laboratory has openings for post doctoral fellows in the following areas:

Vertebrate Photoreceptor Biochemistry and Function

Background: Ongoing studies focus upon biochemical, biophysical and computational analyses of the molecular ensembles that support photon transduction in the rod. Emphasis is given to G-protein function.

Current Program: The photoreceptor group in P-6 is now studying the mechanisms that govern the activation of rod phosphodiesterase with special emphasis on the role and function of the G-protein and its subunits. A new model for G-protein function has been developed, which emphasizes mechanisms for regulating rod sensitivity. We are also studying the coordinated regulation of the rod phosphodiesterase and guanylyl cyclase.

Red Blood Cell Biophysics and Biochemistry

Background: New findings have changed our approaches to the study of the determinant of red cell senescence in health and disease.

Current Program: The red blood cell section focuses upon the determinants of red cell aging. New findings help to explain time dependent changes in red cell membrane area and cytosolic volume. Computational analyses define the critical nature of the ratio of membrane area to cell volume. This relationship is helping to determine new approaches to developing improved red cell storage methods and understanding the molecular pathology of diabetic retinopathy.

Qualifications: Both positions require recent Ph.D. in Biochemistry, Protein Chemistry, Biophysics or related areas. Knowledge of enzymology, membrane and protein chemistry and excellent academic credentials are desirable.

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Interested candidates should send a copy of their CV to **Dr. M. W. Bitensky (P-6), MS K480, PD-91-083, Los Alamos National Laboratory, Los Alamos, New Mexico 87545.** For additional information contact **Dr. M. W. Bitensky** at (505) 667-9420.

The Los Alamos National Laboratory is operated by the University of California and is an Affirmative Action/Equal Opportunity Employer.

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POSITIONS OPEN

RESEARCH ASSISTANT. Position immediately available for a person experienced in molecular biology to join a research team working on human breast cancer. M.S. or Ph.D. required; competitive salary and benefits. Send curriculum vitae and references to: **Dr. Beatriz Pogo, Box 1131, The Mount Sinai Medical Center, One Gustave L. Levy Place, New York, NY 10029-6574.** An Equal Opportunity Employer.

ASSISTANT RESEARCH BIOENGINEER. To work on research on molecular and cell biology of endothelial cells. Ph.D., M.D., or equivalent doctorate with 2 years of postdoctoral experience in related field. Salary commensurate with experience and based on University of California pay scales. *Underrepresented minorities and women are encouraged to apply.* Send curriculum vitae and three reference letters by 31 May 1991 to: **Dr. Shu Chien, Department AMES/Bioengineering, University of California, San Diego, La Jolla, CA 92093-0412.** University of California is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ENTOMOLOGIST. The Centers for Disease Control (CDC) is seeking a research entomologist with experience in Lyme disease prevention and control, detection of pathogens in arthropods, and the ability to conduct independent research and publish results. Applicants with a related doctorate degree are preferred. Salary range: \$31,116 to \$44,348. Duty location: Fort Collins, Colorado. Additional information: **J. Piesman, 303-221-6408.** Send completed SF-171 (Application for Federal Employment) to: CDC, Employment Office, Attention: DEA-91-40, 1600 Clifton Road, N.E., Atlanta, GA 30333. Deadline: 19 April 1991. CDC is an Equal Opportunity Employer and provides a smoke-free environment.

ANNOUNCEMENTS

THE ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE OF THE UNIVERSITY OF MIAMI SEEKS NOMINATIONS FOR THE ROSENSTIEL AWARD

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**Rosenstiel Award Search Committee
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Rosenstiel School of Marine and Atmospheric Science
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Applications are invited from scientists with advanced training and experience in neuroscience or related biological sciences. Participants' expenses will be reimbursed by the institute.

For application forms or further information, please write to: **Dr. W. Einar Gall, Research Director, The Neurosciences Institute, 1230 York Avenue, New York, NY 10021** or telephone: 212-570-8975.

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CLINICAL CHEMISTRY FELLOWSHIPS at Mayo Clinic. Seeking applicants for 1- or 2-year fellowships in training programs directed toward qualified individuals (Ph.D. or M.D. required) pursuing careers in clinical chemistry. Individuals completing the program are eligible for certification by the American Board of Clinical Chemistry or for subspecialty certification by the American Board of Pathology. Applications on file by July (pathology) or October (postdoctoral) 1991 will be considered for appointment in July of 1992. Contact: **Mary F. Burritt, Ph.D., Division of Laboratory Medicine, Mayo Clinic, Rochester, MN 55905**, for more information. Mayo Foundation is an Affirmative Action/Equal Opportunity Educator and Employer.

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

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