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POSITIONS OPEN

FACULTY POSITION MOLECULAR VIROLOGY AND BIOCHEMISTRY UNIVERSITY OF WISCONSIN-MADISON

The Institute for Molecular Virology and the Department of Biochemistry invite applications for a joint, tenure-track position at the rank of **ASSISTANT PROFES SOR**. Applicants should demonstrate interests and expertise in the broad area of molecular virology. Responsibilities include developing an independent, internationally recognized research program, participating in the Department of Biochemistry graduate program and campus multidisciplinary programs such as virology or cellular and molecular biology, and teaching in the Biochemistry Department's curriculum. Salary will be on a 12-month basis and commensurate with the candidate's experience.

Applicants should submit (1) a curriculum vitae, including publication list, (2) a summary of research accomplishments and future research plans, and (3) three letters of reference to: Dr. Paul Friesen, Search Committee Chair, Institute for Molecular Virology, University of Wisconsin-Madison, 1525 Linden Drive, Madison, WI 53706. Telephone: 608-262-4540. To assure consideration, all application materials should be received by September 1, 1997.

The University of Wisconsin is an Equal Opportunity/Affirmative Action Employer. Minority and women candidates and all other qualified persons are encouraged to apply. Under Wisconsin statutes, names, titles, and addresses of applicants and nominees may be subject to public release upon request.

PENN STATE, CHEMISTRY DEPARTMENT, FACULTY POSITION IN NEUROCHEMISTRY. A tenure-track faculty position is available starting fall 1998. We encourage research proposals that are in the broadly defined area of neurochemistry. The successful applicant should feel comfortable in a Department of Chemistry interfacing with Departments of Biology, Biochemistry, and Molecular Biology and will be expected to be an active member in the intercollegiate Neuroscience Program. The appointee will be expected to establish an exceptionally strong and highly visible research program that incorporates excellence in undergraduate and graduate education. A complete résumé, a synopsis of research plans, and three letters of recommendation are required. Review of applications will begin October 1, 1997, and continue until the position is filled. Send information to: Chairman of the Search Committee, Box S, Department of Chemistry, 152 Davey Laboratory, Penn State University, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer, women and min iorities encouraged to apply

PENN STATE, CHEMISTRY DEPARTMENT, FACULTY POSITIONS. Several tenure-track faculty positions are available starting fall 1998. We are committed to hiring the best person irrespective of area, although our primary teaching needs are in organic chemistry. We encourage research proposals that interface with other disciplines such as biological, materials, neurochemical, and environmental sciences, as well as interests in the more traditional areas of chemistry. The appointees are expected to establish an exceptionally strong and highly visible research program that incorporates excellence in undergraduate and graduate education. A complete résumé, a synopsis of research plans, and three letters of recommendation are required. Review of applications will begin October 1, 1997, and continue until the positions are filled. Send information to: Chairman of the Search Committee, Box S, Department of Chemistry, 152 Davey Laboratory, Penn State University, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer, women and minorities encouraged to apply.

FACULTY POSITIONS

The Molecular Cardiology Program at Columbia University College of Physicians and Surgeons invites applications for two tenure-track positions at the ASSIST-ANT PROFESSOR level. We are seeking applicants working in any field of molecular and cellular biology with particular interests in development and cell cycle regulation. Prior experience in cardiovascular systems is not required. Faculty appointments will be jointly in the Departments of Medicine and Pharmacology. Send curriculum vitae, reprints of publications, a statement of research plans, and three letters of recommendation to: Dr. Andrew R. Marks, Director of Molecular Cardiology, Columbia University, P&S 9-401, 630 West 168th Street, New York, NY 10032. Columbia University is an Affirmative Action/Equal Opporunity Employer.

POSITIONS OPEN

TULANE UNIVERSITY MEDICAL CENTER TULANE REGIONAL PRIMATE RESEARCH CENTER SENIOR RESEARCH SCIENTIST

The Tulane Regional Primate Research Center (TRPRC) of Tulane University is seeking a full-time Senior Research Scientist. (ASSOCIATE or FULL PRO-FESSOR equivalent) to establish a research program focused on the virological, cellular, and molecular aspects of Simian Immunodeficiency Virus (SIV) pathogenesis and vaccine development, and to collaborate with others in new and ongoing SIV-related projects. Highly qualified young investigators will be considered. The TRPRC has conducted SIV research for over 12 years and offers excellent laboratory facilities for tissue culture, cell and molecular biology and immunology, computer support including a Sun Sparkstation, access to rhesus monkeys and other nonhuman primates, containment housing for 500 SIV-infected monkeys, nursery facilities, experienced support staff (including laboratory and animal care technicians, a reproductive physiologist, veterinarians, and veterinary pathologists), as well as other support facilities such as flow cytometry, clinical laboratory, and electron microscopy. The required qualifications are either a Ph.D., M.D., or D.V.M. degree or equivalent, demonstrated ability to collaborate with others, and a record of research productivity, funding, and publication in SIVrelated research. Review of applications will begin October 1, 1997, and will continue until the position is filled. Applicants should submit a résumé and the names of three references to: Gary B. Baskin, D.V.M., Chair, Search Committee, Tulane Regional Primate Research Center, 18703 Three Rivers Road, Covington, LA 70433, USA. Tulane University is an Affirmative Action/Equal Opportunity Employer.

ASSOCIATE PROFESSOR RETINAL NEUROBIOLOGY UNIVERSITY OF FLORIDA College of Medicine

The Department of Neuroscience, in conjunction with the University of Florida Brain Institute, invites applica tions for a tenure-track faculty position for individuals having a Ph.D. and/or M.D. degree. The successful candidate will be expected to develop an independent and interactive research program and contribute to the teaching of professional and graduate students. Applicants with demonstrated productivity in the area of inherited retinal disease will be considered. Individuals with research interests in the molecular mechanisms of retinal disease with a focus on phototransduction are preferred. Demonstrated evidence of procurement of external research funding is expected. The position offers a competitive salary and excellent research facilities. Applicants should send their curriculum vitae, a brief description of research interests, and three letters of recommendation to: Dr. Wolfgang J. Streit, Chair, Search Committee, Department of Neuroscience, Box 100244, University of Florida, Gainesville, FL 32610-0244. Application deadline is August 25, 1997, with a start date on or after September 5, 1997. The University of Florida is an Equal Opportunity Employer, and minorities and women are especially encouraged to apply.

HEALTH SERVICES RESEARCH

The MGH Department of Radiology is currently seeking an individual with Master's or doctoral-level training and research experience in technology development and assessment, to function at the level of **INSTRUCTOR** or **ASSISTANT PROFESSOR** as part of a newly formed health services research program focusing on the development and assessment of new and existing technology within radiology. Please send curriculum vitae, a statement of research interests and experience, and the names and addresses of three references to: G. Scott Gazelle, M.D., M.P.H., MGH Department of Radiology, White 220, 32 Fruit Street, Boston, MA 02114. The Massachusetts General Hospital and Harvard Medical School are Affirmative Action/Equal Opportunity Employers.

FACULTY. The University of Illinois Section of Rheumatology is seeking an outstanding M.D. or M.D.-Ph.D. Background in molecular biology required. Send curriculum vitae, research plans, and three recent publications to: John Varga, M.D., Department of Medicine, The University of Illinois at Chicago, 900 South Ashland Avenue (M/C 733), Chicago, IL 60607.

The University of Illinois is an Affirmative Action/Equal Opportunity Employer. The mission of Human Genome Sciences is to identify and develop drugs and diagnostic products based on its leadership in the gene discovery and expression of novel genes from human, animal, plant and microbial origin.

Scientists/Senior Scientists

The Protein Therapeutics Department has immediate opportunities for both a Scientist and a Senior Scientist. Successful candidates will be highly motivated and have a strong background in molecular biology. Selected candidates will be responsible for the development and implementation of innovative methods for novel gene discovery, the discovery and characterization of novel therapeutic proteins, and the development of innovative screens for elucidation of protein functions.

Qualified candidates will possess a Ph.D. in molecular biology or a related field, and 5-10 years post graduate experience. A strong record of scientific publications and superior oral and written communication skills are also essential. Individuals with some experience in one of more of the following areas are particularly encouraged to apply: signal transduction; bioinformatics; transgenics; assay development.

A plus for candidates applying for the Senior Scientist position is a demonstrated record of pharmaceutical or biotech project accomplishments.

HGS encourages the pursuit of academic excellence and offers a competitive benefits package including educational reimbursement, subsidized health club membership, medical/dental/life/disability insurance programs, and a 401(k)



Jan with employer match. For immediate consideration please send/fax your resume to Human Resources Department, Human Genome Sciences, Job #SR8/15, 9410 Key West Avenue, Rockville, MD 20850. FAX: (301) 309-1845. Equal Opportunity Employer.

The Amgen Institute (Toronto)

Senior Staff Scientists

The Amgen Institute invites qualified professionals to apply for positions of Senior Staff Scientist. You will be responsible for independent investigations at our new stateof-the-art research facilities within the Toronto University-Hospital research centre.

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

The Canadian Immigration Department stipulates that Canadian residents will be considered in the first instance. However, all qualified professionals are urged to apply. Please send curriculum vitae, brief statement of future research interests, and three letters of recommendation to: Amgen Institute, Attn: Professor T.W. Mak, 620 University Avenue, Toronto, Ontario Canada M5G 2C1.

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RESEARCH SCIENTIST: TOXICOLOGIST/CHEMIST

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Brown & Williamson Tobacco Corporation, an international multibillion dollar consumer products company, has an immediate opening for its Macon, GA facility within the Research & Development Department.

The candidate we seek must have the capacity to make meaningful contributions in a work environment characterized as fast-paced and constantly changing. The position requires a high degree of organization/planning; the ability to review and decipher large volumes of tobacco related literature and make responses that are scientifically defensible.

The successful candidate, for employment, will have demonstrated their capabilities and orientation for success through their academic, work and personal histories, and evaluation processes.

Candidates must have experience and demonstrated proficiency in the following :

- A minimum of 5 years prior experience required.
- Computer literacy with databases, spread sheets, and word processing is required.
- Prior experience in a Toxicology contract lab preferred; and experience in health effects consulting firm, regulatory agency or industry preferred.
- A Ph.D. in Toxicology or other health effects related field required.
- Good verbal and written communication; math skills required.
- Some job responsibilities would include but not be limited to the following:
- Develop and maintain technical expertise and awareness related to major smoking and health issues associated with environmental tobacco smoke (ETS) and smoke constituents.
- Provide analysis of research findings concerning investigator's interpretations, methodologies, and overall relevance to broader smoking and health issues.
- Monitor emerging ETS and smoking constituent research findings; develop an immediate response posture.
- Collaborate with other scientists to obtain technical input outside their area of expertise.
 - Provide technical support within their field of expertise to other projects and activities within the scientific & regulatory affairs department.

We offer a highly competitive compensation with excellent benefits. <u>Please fax or mail your resume along with recommendations and</u> <u>indicators of job criteria above to</u>: T.E. Brown, Brown & Williamson Tobacco Corp., 2600 Weaver Road, Macon, GA 31298, FAX: 912/755-4033.

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Prize ____



POTAMKIN PRIZE FOR RESEARCH IN PICK'S, ALZHEIMER'S AND RELATED DISEASES

A prize of **\$100,000** will be awarded by the American Academy of Neurology to a person(s) in recognition of major contributions to the understanding of the causes and the prevention, treatment, and ultimately the cure for Pick's, Alzheimer's and related diseases.

Candidates may be nominated on a world-wide basis from any of the biological disciplines including bio-chemistry, molecular biology, molecular genetics, pharmacology, immunology, physiology, cell biology, neuropathology or epidemiology.

A nomination application, nominating letter citing the scientific accomplishments of the candidate in detail, two supporting nominating letters, a curriculum vitae, and up to six (6) selected reprints in twelve (12) complete sets are required.

The deadline for receipt of materials is **November 3, 1997**. No nomination will be considered unless it is complete. The awardee(s) must be present for the AAN Scientific Program, at is annual meeting in Minneapolis, Minnesota on Tuesday, April 28, 1998.

<u>REQUEST APPLICATION AND SUBMIT NOMINATION TO:</u> **American Academy of Neurology** *Potamkin Prize for Research In Pick's, Alzheimer's and Related Diseases* 1080 Montreal Avenue St. Paul, MN 55116 Phone: 612/695-1940

The Potamkin Prize is funded through the Potamkin Foundation.

INFECTIOUS DISEASES RESEARCH

At Lilly, we are building on our past and defining the future.

Eli Lilly and Company's Division of Infectious Diseases Research is committed to the discovery and development of novel anti-infective molecules. Our programs include significant efforts in the bacterial, fungal, and viral areas. We are recruiting the best minds available to help us in this pursuit. We provide the environment and the tools for personal challenge and professional growth.

Infectious Diseases Research has a long and productive history of introducing innovative products for the treatment of human infections. With your participation we plan to continue and extend this tradition of innovation and excellence. Your efforts with Infectious Diseases Research will be supported by the strength of Eli Lilly and Company with sales greater than \$7 billion.

If you are a highly motivated scientist with strong cross-functional expertise hoping to apply your talents to the discovery and commercialization of products for the treatment of human infectious diseases, your future leads straight to Lilly's Division of Infectious Diseases Research.



Ph.D. and BS/MS

Biochemists

We are seeking scientists with proven expertise in biochemistry and molecular biology. Individuals with experience with microorganisms (bacteria, fungi, yeast and viruses) would be preferred. These individuals will become colleagues on multidisciplinary teams committed to identifying, characterizing, purifying and exploiting novel antimicrobial/antifungal targets. Experience purifying and characterizing proteins, developing functional assays for proteins, and study the kinetics and mechanisms of inhibition of enzymes and proteins is critical. Knowledge of microbiology, microbial physiology, and protein biochemistry is highly desirable.

Ph.D. and BS/MS

Microbiologists (Bacteriologists, Virologists)

We are seeking several Microbiologists to enhance our infectious disease efforts. Successful candidates will be involved in a multidisciplinary team effort directed at the discovery, characterization and exploitation of new antimicrobial targets. Positions available will be focused on bacteria or viruses. Significant efforts are ongoing into Hepatitis C virus and antibiotic resistant Gram-positive bacteria. Positions include opportunities for scientists with both in vitro and in vivo experience.

Ph.D. and BS/MS

Fungal Molecular Geneticist

We are seeking highly motivated scientists to enhance our fungal genetics effort. Successful candidates will join our interdisciplinary effort directed at the discovery, characterization and validation of novel antifungal targets. Background must include expertise in genetics of fungal pathogens or filamentous fungi model systems as well as a solid knowledge of current molecular biology and biochemical techniques (PCR, cloning, library construction, gene expression, mutant construction and analysis). Working knowledge in bioinformatics is an added asset. Demonstrated ability to work both independently and as an effective team member is critical.

Ph.D. Team Leader Bacterial Genomic Research

We are seeking a team leader to enhance and lead the antibacterial discovery effort to identify and exploit novel targets from Gram-positive bacteria. The candidate should have proven expertise in molecular biology, prokaryotic expression vectors, and biochemical assay development. An established publication record and significant scientific network is required. This individual is to provide scientific and technical leadership to a multidisciplinary team of motivated scientists who are taking a genomic approach to new target identification and validation. Experience with microbial databases and microbial sequencing projects would be very beneficial.

Post Doctoral Scientists

We are looking for creative individuals in a variety of scientific areas to explore emerging aspects of human infectious diseases. A Ph.D. in Biology, Virology, Mycology, Biochemistry, Microbiology or related field is required. Focus areas in Infectious Diseases Research include hepatitis viruses, important human fungal pathogens, and antibiotic-resistant Gram-positive bacteria. Lilly Postdoctoral scientists gain sound practical experience and focus training that will significantly expand their scientific knowledge and abilities in drug discovery.

We provide the salary, compensation and advancement opportunities you would expect from an industry leader. For confidential consideration, please send your resume and cover letter indicating the position of interest to: **Eli Lilly and Company, Division of Infectious Diseases, US Recruiting and Staffing, Lilly Corporate Center, Indianapolis, IN 46285**.

We are an equal opportunity employer dedicated to diversity and the strength it brings to the workplace. For other opportunities at Eli Lilly and Company, please access our Job Bank at: http:///www.lilly.com.



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Working on the molecular level to conquer, treat, or prevent debilitating diseases.



DRUG DISCOVERY RESEARCH AT SCHERING-PLOUGH

At the Schering-Plough Research Institute, scientists are discovering innovative therapeutic agents that challenge humankind's most debilitating diseases. If you want to be on the cutting edge of pharmaceutical discovery, we now have an exceptional position for a Senior Molecular Modeler.

LEADERSHIP OPPORTUNITY IN COMPUTATIONAL CHEMISTRY

We seek a talented Senior Molecular Modeler to lead our Computational Chemistry group. This group is well-equipped and housed in a state-of-the-art research facility at the Schering-Plough Research Institute in Kenilworth, NJ. Members of the Computational Chemistry group work closely with synthetic chemists to discover molecules suitable for advancement as drug candidates. Computational Chemists utilize all appropriate information including structural data from in-house x-ray crystallographic and NMR analyses of target:drug complexes. Opportunities also exist to work with biophysical chemists utilizing techniques such as titration calorimetry.

The successful candidate must have demonstrated experience in the application of computational techniques to both proteins and

small molecules. A PhD, knowledge of advanced 3-dimensional QSAR methods and experience with iterative structure-based drug design are required. Expertise in the analysis of combinatorial libraries, data generated by high throughput screening and industrial experience are preferred, but not required. Demonstrated leadership ability, good communication skills and supervisory experience are also required.

We offer an excellent compensation package including a competitive salary and comprehensive benefits. For prompt, confidential consideration, we invite you to apply on-line at **http://www.sp-research.com** or send a scannable resume and cover letter, original copy only, referencing Dept. MMCT/BP, to: Schering-Plough Research Institute, MS #1250, 2015 Galloping Hill Road, Kenilworth, NJ 07033-0539. We are an equal opportunity employer. We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.



Director, National Climatic Data Center (NCDC) National Environmental Satellite, Data and Information Service (NESDIS) (A Senior Executive Service Position in the Federal Government)

Department of Commerce National Oceanic and Atmospheric Administration (NOAA) Director, National Climatic Data Center (NCDC) \$101,666 - 121,265 Annually

The candidate selected for this position will be responsible for the direction and administration of the National Climatic Data Center, National Environmental Satellite, Data and Information Service (NESDIS).

Mandatory Professional/Technical Qualification Requirements:

- Experience in the planning, development, implementation, management of suitable and valid methods/procedures for preserving/organizing a voluminous and varied quantity of meteorological and climatological records utilizing computer technology.
- Experience coordinating meteorological/climatological exchange and information services through interaction with scientists and other officials of Federal agencies, academic institutions, research foundations, private sector and international organizations.
- Professional experience which demonstrates full knowledge and application of methods, techniques and theory utilized in decision making for observing standards and quality assurance levels of meteolological data.
- 4. Thorough knowledge of sophisticated, state-of-the-art ADP techniques, equipment and systems analysis in order to make decisions regarding changing technology and the manner in which data is ingested, processed,

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NOAA Values a Diverse Workforce and is an Equal Opportunity Employer

Anticipated <u>PROFESSOR OF</u> <u>INGESTIVE BEHAVIOR</u>

The Pennington Biomedical Research Center, a research facility of Louisiana State University, invites applications for an academic/research position. The successful candidate will have an M.D. Ph.D., D.V.M., or Sc.D. in Behavioral Science, and a research background in central mechanisms of feeding behavior. There should be a substantial record of scientific productivity; individual should have independent grant support, and leadership ability. Teaching and administrative opportunities are available but not required. Applications, including cover letter, curriculum vitae, bibliography, names, addresses, and telephone numbers of three references will be accepted until September 1, 1997. Please send applications to:

> George A. Bray, M.D. Ref. #015218 Pennington Biomedical Research Center 6400 Perkins Road Baton Rouge, LA 70808 FAX: (504) 763-0935

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Astra Research Center Boston

Astra is a rapidly expanding international leader in pharmaceutical research and development, responsible for creating the #1 selling drug in the world, Prilosec®. With over \$5 billion in sales and 20,000 employees worldwide, Astra's mission is to improve human health and the quality of life. Astra Research Center Boston, an integral part of Astra, is initially focusing its research on the development of small molecule drugs and vaccines to improve therapies against Helicobacter pylori. Working on a broad range of international collaborations, our excellent scientists are exploiting H. pylori genomic information to identify targets for pharmaceutical and biological intervention. With a longterm commitment to the research and development of novel therapeutics in additional disease targets, we offer you the opportunity to be part of innovative, creative multidisciplinary project teams.



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Principal Scientist Protein Biochemist for Vaccine and Process Research

The candidate will develop the methods for purification and characterization of proteins which are candidate vaccine antigens. Perform process research for antigens and vectored vaccines. Work closely with scientists in molecular biology, fermentation, biochemistry and formulation research to assure interdisciplinary approach to vaccine design, process and development. Collaborate in the identification of analytical assays and assure that developed processes can proceed to support clinical evaluations and requirements for development and manufacturing. Develop appropriate documentation for regulatory filings and for process transfer and lead other scientists in these efforts. Requires Ph.D. plus 5 years (beyond postdoctoral) of independent research experience and scientific management in protein isolation and characterization; desire to research processes for new future proteins also necessary. (Code: S97-30)

Research Scientist Protein Biochemist for Vaccine and Process Research

Establish purification processes and design in-process assays for recombinant vaccine antigens, including membrane proteins and vectored vaccines. Develop appropriate process methods and documentation. Analyze antigenic and macromolecular structure. Requires Ph.D. in Biochemistry plus postdoctoral experience in protein purification and analysis and desire to research processes for new future proteins. (Code: \$97-31)

Research Associate Biochemistry

Work in different areas of vaccine projects involving protein purification, analysis, development of assays, and formulation in novel physical systems. BS/MS in Biochemistry or related scientific field with experience in protein biochemistry and associated assays required. (Code: S97-32)

Qualified candidates please send your C.V., indicating appropriate job code, to: Astra Research Center Boston, Human Resources, 128 Sidney Street, Cambridge, MA 02139; FAX (617) 576-4668.

Pfizer

scieniists are involved in some of the most critical research in the world today. As a Fortune 100 company, we have established a product pipeline that is unpar alleled, and an intellectual, collaborative environment that inspires scientific achievement. Join us and become a part of the cure. In addition to a fast-paced, yet collegial environment, we offer very competi tive salaries and excellent benefits including relocation assistance. For confidential consideration, please forward resume to: Employee Resources, Pfizer Inc, Job Code #_____ Central Research Division, Eastern Point Road, Groton, CT 06340. For more infor-mation about Pfizer, see us on the Internet at: http://www.pfizer.com. We are an equal opportunity employed M/F/D/V.

Ph.D. Cardiac Biochemist

Join a multidisciplinary team of highly enthusiastic investigators in the discovery of novel therapeutics for the treatment of cardiovascular disease. Ph.D. in Biochemistry or related discipline with experience in cardiac energetics, signal transduction enzymology and/or receptor function. Research experience in the areas of heart failure and myocardial ischemia/reperfusion injury highly desirable. Requires a minimum of 3 years' postdoctoral training and the ability to work effectively in a team environment; drug discovery experience a significant asset. **Job Code: 2234**

BS/MS Scientist — Immunology/Biology

Our Immunology drug discovery project team is looking for a scientist to profile compounds in in vitro cellular functional assays, receptor binding assays and enzymatic assays. Work will include validation studies of potential immunological targets and new assay development. BS/MS in immunology or cell biology and laboratory experience with assays of immunological function, biochemistry and/or enzymology are desired. **Job Code: 2235**

BS/MS Scientist — Antibody Development

In this position, you will be a member of a team responsible for the discovery and characterization of antibodies obtained from hybridomas and antibody phage display libraries. The successful candidate will have 1-5 years' experience in BlAcore assay development and kinetic analysis, including antibody affinity determinations. Additional experience in at least one of the following areas would be advantageous: tissue culture, protein purification, analytical biochemistry or antibody engineering. **Job Code: 2236**





Our drug research and scientific discoveries have reached around the globe to make Parke-Davis Pharmaceutical Research an industry leader. We've redesigned the process of drug discovery, development and marketing to insure even more advancements in the next century and beyond. Currently, we are seeking individuals to join our team in Ann Arbor, MI.

Postdoctoral positions are available in the Department of Cell Biology at Parke-Davis for highly motivated, independent Scientists in the area of intracellular signaling. The department is highly interactive with interests in basic and applied aspects of signal transduction. Opportunities are available in the laboratories of: Alan R. Saltiel: Mechanisms of insulin action; regulation of protein kinases and phosphateses Stuart Decker: Growth factor receptor signaling, cell cycle regulation by Raf/MEK/MAP kinase pathway

Roman Herrera: Regulation of signaling events involved in cell adhesion and differentiation of leukocytes and epithelial cells

Judy Sebolt-Leopold: Cell signaling mediated by Ras and the MAP kinase cascade; application of signal transduction biology to the discovery of anti-cancer agents

David Dudley: Novel mechanisms of kinase inhibition; peptide receptor signaling

Robert MacKenzie: Central and peripheral molecular mechanisms of body weight regulation; regulation of G protein-coupled signaling by RGS proteins

Applicants should be recent M.D. or Ph.D. graduates with a strong background in cell biology, molecular biology, biochemistry or related area. The Department of Cell Biology provides exceptional research facilities and support services.

Join a team of professionals and broaden your scientific career with Parke-Davis. Enjoy a new level of research freedom, competitive salaries and benefits. Interested individuals should mail, fax or e-mail a CV* and list of references to:

Human Resources, Job Code 974164, Parke-Davis Pharmaceutical Research Division, 2800 Plymouth Road, Ann Arbor, MI 48105. Fax: (313) 998-3394. E-mail: resume@aa.wl.com

*Submit CV on laser-quality white paper, with legible 10 point or larger type, and avoid boldface, italics, borders, etc.

Equal opportunity in action. Smoke-Free work environment.

CLAUDE BERNARD CHAIR

Biochemistry/Molecular Biology/ Molecular Genetics/Nutrition Research

The Pennington Biomedical Research Center and the LSU Medical Center, both of Louisiana State University, are seeking a candidate at a senior level as holder of the Claude Bernard Endowed Chair. Any relevant area of biochemical and molecular or genetic research, including the broadly defined areas of nutrition and metabolic diseases, is acceptable. The applicant is expected to bring along a currently active research program in his/her area of expertise. The Pennington Center has 223,000 square feet and \$14.2 million research funding in nutrition and pre-ventive medicine. The successful candidate may have a teaching appointment, if desired. Space, transition funds, salary, and fringe benefits present an extremely attractive package. Applicants should send a curriculum vitae, bibliography, a brief description of future research plans, and the names of three (3) references to:

William Hansel, Ph.D. Chairman, Search Committee Ref. CB/WH Pennington Biomedical Research Center

6400 Perkins Road Baton Rouge, LA 70808-4124

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NATIONAL INSTITUTES OF HEALTH NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE

The National Institutes of Health invites applications for the position of Director, National Institute of Neurological Disorders and Stroke (NINDS). The incumbent provides national leadership and direction in the development of Institute goals, priorities, policies, and program activities. The program includes basic and clinical extramural and intramural neurological and neurosurgical research and the training of scientists for research careers in the biomedical sciences with a special interest in fundamental neurological disorders, strokes, and central nervous system trauma. He/she will be responsible for administering a major Federal research program whose primary responsibility is to conduct, foster, and support basic and clinical research in fundamental neurosciences, neurological disorders, and stroke and central nervous system trauma. The NINDS has an intramural program conducting basic research in biochemistry; immunology; pathology; bioengineering; epidemiology; genetics; histochemistry; physical, chemical, and molecular biology; and pharmacology.

This is a position in Senior Executive Service with a salary ranging from ES-1 to ES-6 (currently \$103,897 - \$123,100, including locality pay). Physicians may be eligible for a Physicians Comparability Allowance of up to \$20,000 per year. A recruitment bonus of up to 25% of base pay may be available to a non-Federal applicant selected for this position, and a relocation bonus of up to 25% of base pay may be available to a permanent Federal employee who must relocate to accept this position.

Applicants must meet the minimum educational requirements, or equivalent combination of education and experience, for the Medical Officer, GS-602 series, or the Health Scientist Administrator, GS-601 series, and the following mandatory qualifications: (1) Senior-level research experience and knowledge of research programs in one or more scientific areas related to fundamental neurosciences, neurological disorders, or stroke and central nervous system trauma. Extensive knowledge of research methodology and an understanding of biomedical and behavioral sciences as they relate to neurological, stroke disorders, or central nervous system trauma. Should be known and respected within his/her profession, both nationally and internationally, as a person of outstanding scientific competence; and (2) Ability to provide leadership/management of a research program in neurological or stroke disorders of national and international scope and complexity involving dealings with outside groups and extensive planning, progress assessment, and analysis of program objectives; development of plans for the resolution of major operational problems and issues; and management of financial and human resources, including selecting, managing, and motivating staff using fair and equitable staffing/recruitment practices, and implementing EEO and Affirmative Action principles and objectives.

The vacancy announcement (#NS-97-50) may be obtained by calling 301-496-1443. Applicants are required to submit a Curriculum Vitae or resume, bibliography, or any other written format which addresses the requirements indicated in this announcement, and a detailed statement addressing the mandatory qualifications, to the following address:

National Institutes of Health **Division of Senior Systems Building 31, Room B3C08** 9000 Rockville Pike Bethesda, Maryland 20892 **Attention: Fred Walker** Applications must be postmarked no later than September 19, 1997

- Applicants with access to the Internet's World Wide Web may browse the NIH Home Page to view the announce-. ment and may apply through the Web at URL: http://helix.nih.gov:8001/jobs/
- Applicants may e-mail their application material to fcwalker@helix.nih.gov 0

NIH IS AN EQUAL OPPORTUNITY EMPLOYER

THE UNIVERSITY OF IOWA ASSISTANT, ASSOCIATE PROFESSOR, OR PROFESSOR OF MICROBIOLOGY

The Department of Microbiology and the Cancer Center, The University of Iowa College of Medicine, invites applicants to apply for a tenure-track faculty position at the Assistant, Associate Professor, or Professor level. Outstanding candidates investigating the interaction between human viruses, the immune system, and oncogenesis are encouraged to apply. All applicants must have a Ph.D. and/or M.D. degree, postdoctoral research experience, and a strong record of research accomplishments. Successful applicants are expected to establish an extramurally funded research program and to actively participate in the Viral Oncology Research Program of the Cancer Center. Applicants must be able to fully participate in departmental virology and immunology teaching assignments. The Department of Microbiology consists of 28 faculty members with research programs in immunology, virology, pathogenic bacteriology, microbial genetics, and microbial physiology. The Cancer Center overall has 110 faculty investigators and five established research programs The University has strong research programs in molecular virology and immunology. Research facilities of the department have undergone complete renovation. Applicants should send their curriculum vitae, a statement of research interests, and the names of at least three references before October 1, 1997, to:

Michael A. Apicella, M.D. Search Committee Chair (F1328) Department of Microbiology 3-403 Bowen Science Building The University of Iowa, Iowa City, IA 52242

Anticipated start date is July 1, 1998.

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

ASSISTANT AND ASSOCIATE PROFESSORS DEPARTMENT OF PHARMACOLOGY

Tenure-track positions are available for energetic individuals taking a molecular and/or cellular approach to modern pharmacological research problems. Candidates should have strong evidence of sustained creativity and a temperament that facilitates collegial and collaborative interactions. Qualified Ph.D. or M.D. candidates with research interests in the areas of structural biology or cell growth regulation, and with a track record of research funding, are especially encouraged to apply. The success ful candidate will receive excellent laboratory space and handsome start-up funds in a setting that fosters her or his professional development. Our multidepartmental graduate programs provide a large pool of graduate students, and successful candidates will also participate in medical student training. Emory University is located in a wooded, residential area in the outskirts of Atlanta, and has undergone rapid growth in molecular and cellular biomedical research programs. Check us out at website: http://www.emory.edu/PHARMACOLOGY/. Applicants should send curriculum vitae, representative reprints, a summary of current research and future plans, and names of three or more referees to: Raymond Dingledine, Chairman, Department of Pharmacology, Emory University School of Medicine, Atlanta, GA 30322. Equal Opportunity Employer.

TRANSYLVANIA UNIVERSITY BOTANIST/VERTEBRATE ZOOLOGIST

Transylvania University has two openings for tenure-track ASSISTANT/ASSOCIATE PROFESSORS to begin fall 1998. Preference in one position will be given to senior candidates with leadership experience. We seek a Botanist to teach botany and maintain a teaching/research greenhouse and a Vertebrate Zoologist to teach comparative anatomy of chordates. Both will also teach general biology, genetics or ecology, and a course in their special field, as well as establish a research program involving undergraduates. Ph.D. required; teaching experience preferred. Transylvania is a small, private, residential liberal arts college. Bingham Awards for Excellence in Teaching may provide salary supplements for exceptional senior candidates or smaller start-up grants for especially promising junior candidates. Send application letter, curriculum vitae, statement of teaching philosophy and re-search interests, and three reference letters by October 15, 1997, to: Dr. James Wagner, Biology Program, Transylvania University, Lexington, KY 40508-1797. Website: http://www.transy.edu. Transylvania is an Equal Opportunity Employer.

POSITIONS OPEN

ENVIRONMENTAL TOXICOLOGIST ASSISTANT, ASSOCIATE, OR FULL PROFESSOR Department of Environmental Toxicology University of California, Davis

A tenure-track position is available in the Department of Environmental Toxicology for an Assistant/Associate/ Professor and Assistant/Associate/Full Environmental Toxicologist in the Agricultural Experiment Station, College of Agricultural and Environmental Sciences. The nine-month tenure, eleven-month term appointment requires teaching, research, and service.

We are especially interested in individuals who have or will establish a strong research program in one or more of the following areas of emphasis: environmental chemistry, aquatic toxicology, environmental fate and transport of toxicants, ecotoxicology, mechanistic toxicology, and/or environmental risk assessment. Excellent candidates in other areas of environmental toxicology will also be considered. The successful applicant will be expected to have or to develop an internationally recognized independent and well-funded research program, to teach at the undergraduate and graduate level, to train and supervise students, and to collaborate with established programs within the Department and University. Applicants at the Associate or Full Professor level should also have demonstrated excellence in research and teaching.

Send résumé, transcripts (official transcripts are required if the Ph.D. was granted in the past five years), list of publications, detailed statement of past experience and future research plans and teaching interests, as well as the names of three references to: Dr. Michael S. Denison, Chair, Search Committee, Environmental Toxicology Department, University of California, Davis, CA 95616-8588. The position will remain open until filled; to assure consideration, applicants should apply by October 1, 1997.

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

The Department of Anatomy and Cell Biology invites applications for a tenure-track position at the ASSIST-ANT PROFESSOR level. Applicants should have a Ph.D., M.D., or equivalent degree with demonstrated ability to conduct independent research in the area of cellular, molecular, and developmental biology. Start-up funds and excellent research facilities are available. The successful applicant will be expected to teach in the medical neuroanatomy course, participate in graduate education, and support their laboratory efforts through extramural funds for research. Curriculum vitae, a brief description of previous and anticipated research, and the names of three referees should be submitted to: Dr. M. A. Q. Siddiqui, Professor and Chairman, Department of Anatomy and Cell Biology, State University of New York Health Science Center at Brooklyn, 450 Clarkson, Avenue, Brooklyn, NY 11203. The State University of New York is an Equal Opportunity/Affirmative Action Employer.

GROSS ANATOMIST. A position is available in the Department of Cell Biology, University of Virginia, for an experienced Anatomist to teach gross and developmental anatomy to first-year medical students. Applicants should have a Ph.D. in anatomy or related field with experience in both lectures and dissection. Responsibilities also include development of novel teaching aids and assisting with laboratory preparation and maintenance. Renewable term appointment at ASSISTANT or ASSOCIATE PROFESSOR level; salary is dependent upon qualifications and experience. Applicants should supply a curriculum vitae, a statement of teaching philosophy, and have three letters of reference sent to: Barry T. Hinton, Ph.D., Chair, Search Committee, Department of Cell Biology, Box 439 Health Sciences Center, Charlottesville, VA 22908. The University of Virginia is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSISTANT PROFESSOR position available September 15, 1997. Ph.D. in biochemistry with at least five years of postdoctoral experience, of which three years must be in proteinase purification and cloning, and at least one year in protein processing of molecules involved in the cell and molecular biology of Alzheimer's disease. Salary negotiable. For fullest consideration, apply by September 5th with curriculum vitae and names of three references to: Dr. Arnold Kaplan, University of Illinois at Chicago (M/C 066), 845 West Taylor, Chicago, IL 60607. Affinnative Action/ Equal Opportunity Employer.

POSITIONS OPEN

CARDIOVASCULAR PHYSIOLOGIST

The Department of Physiology at The University of Arizona, College of Medicine, invites applications for a tenure-track, fiscal year position at the rank of ASSIS-TANT PROFESSOR. Preference will be given to a systems/integrative cardiovascular physiologist who uses molecular genetic tools to examine mechanisms of cardiovascular function. The successful candidate will be expected to establish a vigorous, independent research program and contribute to teaching in undergraduate, graduate, or medical physiology courses. Qualifications include the Ph.D., M.D., or equivalent, and two or more years of postdoctoral training. Candidates with demonstrated experience in teaching and success in acquiring independent funding are especially encouraged to apply. Position is available beginning July 1, 1998. Review of applications will begin September, 1997, and continue until the position is filled. Submit a letter of application, a summary of teaching and researching goals, a curriculum vitae with the names of three references, and three reprints to: Janis M. Burt, Ph.D., Head of the Search Committee, Department of Physiology, The University of Arizona, Tucson, AZ 85724-5051. More information about the Department can be found at: http://vascular.physiol.arizona.edu/ CVjob.html and/or http://www.physiol.arizona. edu/CELL/Department/CV.html. The University of Arizona is an Equal Opportunity/Affirmative Action Employer. Miniorities/Females/Disabled/Veterans

The University of Medicine and Dentistry of New Jer-–Robert Wood Johnson Medical School's Department of Molecular Genetics and Microbiology invites application for tenure-track position at the level of ASSIS-TANT/ASSOCIATE PROFESSOR. The successful candidate will be expected to establish and maintain a strong, independent, extramurally funded research program and participate in teaching graduate and medical students. The position requires a Ph.D. or equivalent degree, postdoctoral training, and a record of excellence in research. Applicants with expertise in immunology, microbial pathogenesis, receptors, signal transduction, and mammalian genetics are especially encouraged to apply; however, outstanding candidates in all areas will be considered. The first round of evaluations will begin on September 30. Applicants should send a letter of application, curriculum vitae, short description of research plans, and the names and addresses of three or four references to: Dr. Sidney Pestka, Chairman, Search Committee, Department of Molecular Genetics and Microbiology, UMDNJ-Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635. Website: http:// www2.umdnj.edu/mgenmweb/index.html. UMDNJ is an Affirmative Action/Equal Opportunity Employer, and a member of the University Health System of New Jersey.

CELL BIOLOGIST: Department of Life/Earth Sciences, Otterbein College, beginning September 1, 1998. ASSISTANT/ASSOCIATE PROFESSOR, renewable term appointment. Ph.D. in cell biology with background in one or more of the following disciplines: animal physiology, neurobiology, developmental biology, genetics, and microbiology. A research interest in neurobiology preferred. Teaching responsibilities include courses in the life science major; service courses for physical education, sports medicine, and nursing; and courses in the college's general education program. Deadline: October 15, 1997. send application letter, curriculum vitae, and three current letters of reference to: Dr. Patricia A. Frick, VP Academic Affairs, Otterbein College, Westerville, OH 43081. Finalists for the position will be asked to submit official transcripts for all previous academic work. Women and minorities are encouraged to apply. Affirmative Action/Equal Opportunity Employer.

SENIOR SCIENTIST

Candidates should have a major emphasis in biochemistry, Ph.D. preferred. Experience necessary in the following areas: peptide synthesis, purification, characterization, bioorganic syntheses, and general analytical chemistries, including spectroscopy and calorimetry experiments.

This is an opportunity to join a rapidly growing and dynamic research and development support facility, dedicated to providing state-of-the-art analytical services to the biotechnology industry. Salary is commensurate with experience and background; excellent benefits package offered. Send résumé and cover letter to: Director of Personnel, 911 East Leigh Street, Suite G-19, Richmond, VA 23219. FAX: 804-648-2641; e-mail: cbi@i2020.net.

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GLOBAL CAREER OPPORTUNITIES

Institute of Molecular & Cell Biology

An Institute Affiliated to THE NATIONAL UNIVERSITY OF SINGAPORE

PRINCIPAL INVESTIGATORS MAMMALIAN GENETICS AND DEVELOPMENT, AND CELL BIOLOGY



The **Institute of Molecular and Cell Biology (IMCB)** was established in 1987. Rated by SCIENCE magazine as "the biology lab to watch in Asia" (**262**:353,1993), it has an international scientific staff of over 250 carrying out basic and applied research. IMCB is now inviting applications for newly created principal investigator positions at the level of assistant professor, associate professor, or professor. We are seeking innovative and outstanding principal investigators with a background in one or more of the following areas: mouse/human genetics, development and neurobiology, cellular immunology, cell signaling/regulation.

Singapore is a hub for biomedical and biotechnology development in the dynamic and thriving region of the Asia-Pacific. Opportunities abound for the truly capable, innovative, and determined scientist to contribute to the exciting growth of this region.

Initial tenure-track contracts for principal investigators are for 3 years.

Applicants should mail or fax their c.v. in confidence, referring to this advertisement, together with the names of three referees, to:

The Director Institute of Molecular and Cell Biology 15 Lower Kent Ridge Road Singapore 119076 FAX: (65) 777 0402 E-mail: mcbtanyh@leonis.nus.sg

IMCB 10TH ANNIVERSARY SYMPOSIUM "Bridges to 21st Century Medicine: Genes, Signals and Diseases" November 17–18, 1997 NATIONAL UNIVERSITY OF SINGAPORE



Organised by: Institute of Molecular and Cell Biology, Singapore

Plenary and Keynote Speakers

David Baltimore, Cell life and cell death; Allan Baxter, Systematic drug discovery; Sydney Brenner, Genes and evolution; William Chia, Asymmetric cell division and the generation of cellular diversity; Philip Cohen, PDK1 - link in insulin signal transduction; Steve Fodor, Genes, chips, and the human genome; Robert Gallo, Glimpses of medical science and medicine in the 21st century; Corey Goodman, Mechanisms generating neuronal specificity; David Lane, Drug discovery in the p53 pathway; Victor Ling, Cancer, drug resistance, and ABC transporter superfamily; George Poste, Molecular medicine, population genetics, and the future of health care delivery; Michael Smith, High accuracy sequencing of the human genome; Y. H. Tan, IMCB - Past, present, and future; Lap-Chee Tsui, Genetic approaches to human disease.

Chairpersons and Other Participants

Naoko Arai, Marcia Barinaga, Ralph Bradshaw, Sydney Brenner, Philip Campbell, Chengming Li, Thomas Doetschman, Philip Goelet, Monto Ho, Alice Huang, Ru Chih Huang, Yongzhen Hui, Louis Lim, Jerry Lingrel, Sangkot Marzuki, Kenneth Neet, Peter Newmark, Catherine Pallen, Stephen Prescott, Agnes Tay, Jay Tischfield, Robin Weiss.

IMCB R&D Showcase

Antisense research - R Ting; Antivirals -YH Tan; Cell cycle regulation in yeast - U Surana; Computer aided molecular modelling - A Tan; Dengue virus - J Fu; Developmental neurobiology - W Chia/X Yang; DNA repair and carcinogenesis - B Li; Drug development and mycobacteria - T Dick; Drug discovery from natural products - M Yap; Screening for novel inhibitors - A Ting; Equatorial microbial diversity and screening - Y Wang; Genetics of human diseases - A Tay; Growth hormone signal transduction - P Lobie; Human papillomavirus biology - HU Bernard; Mechanism of apoptosis in mammalian cells - V Yu; Medicinal and combinatorial chemistry - A Ganesan; Molecular genetics - S Brenner/B Venkatesh; Molecular immunology - KM Hui; Neural regulation and function - L Lim; Protein trafficking in mammalian cells - W Hong; Protein tyrosine phosphatases in cell regulation - C Pallen; Regulation of cell division and chromosome stability of yeast - M Cai; Regulatory biology - S Lin; Sequencing and genome analysis - A Tay; Signal transduction in mammalian cells - X Cao/G Guy; Solving tough integration problems in biology - L Wong; Tumour necrosis factors and cell death - A Porter

Registration Fee: Before 15 Sept. 97 - US\$ 140 (academia), US\$ 210 (industry); After 15 Sept. 97 - US\$ 175 (academia), US\$ 245 (industry); FAX: (65)7791117; e-mail: mcbtanyh@leonis.nus.sg; Home page: http://www.imcb.nus.sg. Places are limited. Do register early to avoid disappointment.

ASSISTANT/ASSOCIATE PROFESSOR NEUROBIOLOGY/SIGNAL TRANSDUCTION University of Florida College of Medicine

The Department of Pharmacology and Therapeutics, in conjunction with the University of Florida Brain Institute and its program in Signal Transduction and Drug Discovery, invites applications for a tenure-track faculty position for individuals having a Ph.D. and/or M.D. degree. The position is in part supported by the Lucille P. Markey Charitable Trust. The successful candidate will be expect ed to develop an independent and interactive research program and contribute to the teaching of professional and graduate students. Individuals with demonstrated productivity using molecular and cellular approaches to study central nervous system signal transduction or related areas are encouraged to apply. The position offers a competitive salary, excellent research facilities, and startup package. Applicants should send their curriculum vitae, a brief description of research interests, and three letters of recommendation to: Chair, Search Committee for the Markey Faculty Scholars Program, Department of Pharmacology, Box 100267, University of Florida, Gainesville FL 32610-0267. Application deadline is September 30, 1997, with a start date on or after January 1, 1998. The University of Florida is an Equal Opportunity Employer, and minorities and women are especially encouraged to apply.

ASSISTANT PROFESSOR OF PLANT PATH-OLOGY (MYCOTOXICOLOGY), PENN STATE. Applications are invited for this tenure-track position in the Plant Pathology Department with 70 percent research and 30 percent teaching responsibility. Duties include research that significantly contributes to the understanding of the chemistry, toxicology, and/or modes of actions of mycotoxins produced by Fusarium, Alternaria, Aspergillus, Penicillium, or Stachybotrys. The person in this position will develop collaborations through the Fusarium Research Center and as appropriate with colleagues engaged in toxicology research in animal and human health. One mycotoxicology course and a team-taught molecular mechanisms of toxicity course will be taught. Participation in graduate education through advising graduate student research and serving on student research committees is expected. Ph.D. in chemistry, toxicology, biochemistry, or related area with a strong background in biological sciences is required. Submit a statement of research and teaching goals and interests, curriculum vitae, transcripts, and have at least three letters of reference sent to: Barbara J. Christ, M-104, University Park, PA 16802-4507 Review of résumés will begin September 15, 1997, and continue until position is filled. Affirmative Action/Equal Opportunity Employer.

RESEARCH PRODUCTS DIRECTOR

Mosaic Technologies is a pioneering DNA chemistry company in Boston, Massachusetts. The company is launching a family of advanced research products based on proprietary solid phase DNA chemistry. The company offers above-average compensation to qualified personnel and is seeking a Research Products Director.

The position requires a Ph.D. or M.S. in biochemistry or molecular biology. The successful applicant will have a demonstrated track record of developing novel products for the molecular biology research market. Experience with DNA/RNA hybridization assays is preferred but not necessary. The candidate will be expected to establish a product applications group and customer support center and develop a marketing strategy.

and develop a marketing strategy. Please submit résumé to: Personnel Department, Mosaic Technologies, Inc., 1106 Commonwealth Avenue, Boston, MA 02215. Mosaic is an Equal Opportunity Employer.

SCIENTIST

Neose Technologies, Inc., a leader in the development of oligosaccharide-based therapeutics, is currently seeking a Ph.D.-level scientist with three to five years of postgraduate training in molecular biology, microbiology, or bacterial genetics to join our Molecular Biology Group. The successful candidate will isolate genes encoding the enzymes utilized in the synthesis of novel oligosaccharide structures. The position requires the ability to interact with a diverse group of scientists across several disciplines including biochemistry, microbiology, and cell biology. Please send curriculum vitae and the names of three references to: Human Resources Department 815, Neose Technologies, Inc., 102 Witner Road, Horsham, PA 19044. E-mail: skeller@neose.com. Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT or ASSOCIATE PROFESSOR of biochemistry and molecular biology. The Department of Biochemistry and Molecular Biology, University of North Dakota School of Medicine and Health Sciences. invites applicants for a tenure-track, twelve-month position as Assistant or entry-level Associate Professor. The appointment can begin January 1, 1998. Applicants with expertise in any area of biochemistry and molecular biology will be considered. Duties will include teaching of medical, graduate, and undergraduate students; conducting independently funded research; and service on committees. A Ph.D. degree, postdoctoral research experience, and publications are essential. Demonstrated ability to obtain extramural funding and evidence of teaching experience, preferably at the medical or graduate school level, are highly desirable. The individual must have a strong commitment to medical and graduate education and to conducting an extramurally funded research program. Salary is negotiable based on credentials. Applicants are to submit a letter of application; complete curriculum vitae; up to three pages describing teaching experience, interests, and philosophy, and past, present, and proposed research; and the names, tele-phone numbers, FAX numbers, or e-mail addresses of three references. Send applications to: Dr. David O. Lambeth, Chair of Search Committee, Department of Biochemistry and Molecular Biology, University of North Dakota School of Medicine and Health Sciences, 501 North Columbia Road, Grand Forks, ND 58202-9037. Review of completed applications will begin October 1 and will continue until the position is filled. For more information about our department, visit website: http://www.med.und.nodak.edu/ depts/biochem/home.htm. The University of North Dakota is an Affirmative Action/Equal Opportunity Employer.

The Department of Radiation Oncology, Massachusetts General Hospital, Harvard Medical School invites applications for a position at the level of ASSISSTANT or ASSOCIATE PROFESSOR in molecular/cellular radiation biology. Fields of interest include, but are not limited to, DNA damage induction and repair, apoptosis, cell cycle checkpoints, mutagenesis, and genetic determinants of the reponse to DNA damage. Minimal qualifications include a Ph.D. and/or M.D. in molecular, cellular, or radiation biology and postdoctoral experience in a relevant area. The successful candidate will have a record of independent, original research complementary to current research areas in the department and will be expected to have funding from extramural sources. Applicants should send a curriculum vitae, statement of research interests, and the names of three references to: Dr. Herman D. Suit, Chief, Department of Radiation Oncology, Cox 302, Massachusetts General Hospital, Fruit Street, Boston, MA 02114. MGH/HMS is an Equal Opportunity Affirmative Action Employer. Women, minorities, disabled and veterans are encouraged to apply.

RENAL PHYSIOLOGIST

Applications are invited for an appointment as a Renal Physiologist to lead a strong and distinguished research program in regulatory physiology in the Division of Intramural Research, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health. Candidates are sought with experience using modern molecular and cellular approaches, including functional studies in genetically modified animals, to understand intrarenal regulation of the circulation. Candidates should have a strong international reputation and record of a highly competitive and productive research program. Please send curriculum vitae and bibliography to: Ms. Kay Place, Division of Intramural Research, NIDDK, Building 10, Room 9N222, 10 Center Drive, MSC 1818, National Institutes of Health, Bethesda, MD 20892-1818. The closing date is August 28, 1997.

RESEARCH SCIENTIST position available for the development of assays to determine the immune responses in patients undergoing therapy with cancer vaccines. Assays to be developed include ELISPOT and CTL. The position will be based in laboratories in Pittsburgh, Pennsylvania under the supervision of **Dr. Theresa Whiteside**. The individual will have interaction with experts working in this field nationwide. The successful candidate must have a Ph.D. in immunology or an associated field, capability to work independently, and a proven track record in the development of T cell assays. Please send curriculum vitae to: **Dr. Lynn E. Spitler, Jenner Technologies, 1895 Mountain View Drive, Tiburon, CA 94920. FAX: 415-435-6851; e-mail: lspitler@hooked.net**.

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POSITIONS OPEN

CLEMSON UNIVERSITY TENURE-TRACK ASSISTANT PROFESSOR

Assistant Professor of cell biology/molecular medicine, beginning fall 1997; nine-month salary, commensurate with qualifications. Position is initially full-time research but with opportunities for future teaching. Research experience required in the area of breast cancer, and in particular in hormonal control of cell function. Candidate should have a strong publication record in the area of gene regulation and horomone receptor interactions, show evidence of successful research collaborations with physicians, and success in obtaining financial support for their research. The successful candidate will be expected to fully participate in Departmental affairs and direct graduate student research projects. Applications should include a curriculum vitae and names of three references. Applications should be sent to: Chair, Cell Biology/ Molecular Medicine Search Committee, School of Animal Biomedical and Biological Sciences, 128 Long Hall, Box 340304, Clemson University, Clemson, SC 29634-0304. Closing date of September 1, 1997, or until a suitable candidate is identified.

Clemson University is an Equal Opportunity Affirmative Action Employer and encourages applications from minorities and women.

SUPERVISOR, ANALYTICAL RESEARCH DE-**PARTMENT** for pharmaceutical company. 40-hour wcek, 9 AM to 5 PM, \$41,500 per year. Provide analytical support to the areas of new drug and abbreviated new drug substances in pharmaceutical R&D laboratory; develop, validate, and implement test methods to meet specifications for drug substances, intermediates, and finished products; support foundation development group; routine testing for samples as per USP/NF and BP; generate drug substance and finished product stability data and reports for regulatory submission; prepare regulatory (IND/NDA/ANDA) documents in support of FDA submission; work with cGMP and GLPs; prepare, review, and revise SOPs, test methods, and product specifications; experience in test methods transfer to QC; experience in chromatography, spectroscopy, and dissolution testing; supervision and review of works done by other chemists. Master of Science in chemistry with two years of experience in the job offered or two years in a supervisory or group leader position. Submit résumé to: FDLES Bureau of Operations, 1320 Executive Center Drive, Suite 110, Tallahassee, FL 32399-0667, RE: Job Order No. FL-1637100

SCIENTIST

MedImmune, Inc., a dynamic biotechnology company focused on developing and marketing products for the prevention and treatment of infectious diseases, has an opening for an individual to optimize procedures for physiochemical characterization of products under development and in production.

Candidates must have a Ph.D. in biochemistry/chemistry with three to five years of experience in protein research and/or development environment, and experience with characterization techniques including protein sequencing, peptide mapping, mass spectrometry, and oligosaccharide characterization.

Please forward your résumé to: MedImmune, Inc., Human Resources (SCIJH), 35 West Watkins Mill Road, Gaithersburg, MD 20878. FAX: 301-527-4200; e-mail: jobopenings@medimmune.com.

Equal Opportunity Employer, Minorities/Female/Disabled/ Veterans.

For job opportunities, check the MedImmune website: www.medimmune.com.

PROJECT MANAGER

Atrix Laboratories, Inc. offers an exciting career in a growing drug delivery and biomaterial company developing products for animal and human healthcare. We are seeking qualified applicants for a Project Manager. B.S. in biology, physical science, or engineering discipline plus additional graduate coursework. Minimum two to four years of Project Management experience in a pharmaceutical or biotech industry. Experience filing an NDA a must. Knowledge of cGMP, GLP, GCP, and QA/QC principles required. Understanding of all phases of product development, from discovery through clinical development. Familiar with CPM, Gantt, PERT, etc. Send résumé, salary requirements, and three references to: Human Resources Department, Atrix Laboratories, Inc., 2579 Midpoint Drive, Ft Collins, CO 80525. FAX: 970-482-9735. For more information about Atrix Labs, please visit our website: www.atrixlabs.com. Eaual Employment Opportunity

Type 2 Diabetes Mellitus Research Program Scientific Program Manager NIH Research Administration

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) is seeking applicants for the position: **Director for the Type 2 Diabetes Mellitus Research Program**. This position is located in Bethesda, Maryland, and is a permanent full-time position for a scientific Program Manager (GS-13 or -14) with a salary range of \$54,529 to \$88,396 per annum commensurate with qualifications. Physicians may be eligible for Physician Comparability Allowance ranging from \$5,000 to \$20,000 per year.

The Director for the Type 2 Diabetes Mellitus Research Program is responsible for planning, developing, managing and evaluating a multimillion dollar program of grant and contracts which supports high quality basic and clinical studies throughout the world. This individual will be responsible for identify research priorities, organizing scientific meetings and closely interacting with leading researchers in the field. This grant portfolio focuses on research related to type 2 diabetes mellitus including insulin resistance, glucose metabolism, and the mechanism of insulin action. Applicant scientists (Ph.D., M.D., or equivalent) should have a track record of accomplishments in biomedical research related to diabetes and excellent interpersonal and written communication skills.

A position description and qualifications for the position are available from Ms. Virginia Kreamer in the Office of Human Resource Management, NIDDK. The deadline for applications is October 1, 1997. Submit a CV, bibliography, application background survey (optional) and supplemental qualifications statement to: Mr. Ronald Sleyo, Office of Human Resource Management, NIDDK, NIH, Building 31, Room 9A34, 31 Center Drive MSC 2560, Bethesda, MD 20892-2560; Email: sleyo@niddk.nih.gov. Applicants may also apply to this position via the Internet. The full text vacancy announcement and on-line application for this position is available at:

http://ohrm.cc.nih.gov/nihhrm/ANNOUNCEMENT/ON-LINE.html

U.S. Citizenship is Required. NIH is an Equal Opportunity Employer. Minority and Women Applicants are Encouraged to Apply.

METABOLISM AND STRUCTURAL BIOLOGY RESEARCH PROGRAM SCIENTIFIC PROGRAM MANAGER NIH RESEARCH ADMINISTRATION

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) seeks a scientist with expertise in cell and/or structural biology (Ph.D. or equivalent) to serve as **Director**, **Metabolism and Structural Biology Research Program**. The successful candidate will have independent research experience, excellent interpersonal and written communications skills, and the ability to identify research priorities and opportunities. The position involves scientific administration of grants and contracts, program planning and development, close interaction with leading researchers, and the opportunity to organize and/or attend scientific meetings. The position (GS-13/14) salary range for this position is \$54,529 to \$83,922 per annum depending on qualifications. The position will be available in early 1998.

A position description which delineates the areas of science encompassed by the program and qualifications for the position are available from Ms. Virginia Kreamer in the Office of Human Resource Management, NIDDK. **The deadline for applications is October 1**, **1997.** Submit a CV, bibliography, application background survey (optional) and supplemental qualifications statement to:

Mr. Ronald Sleyo, Office of Human Resource Management, NIDDK, NIH, Building 31, Room 9A34, 31 Center Drive MSC 2560, Bethesda, MD 20892-2560; Email: sleyor@niddk.nih.gov

Applicants may also apply to this position via the Internet. The full text vacancy announcement and on-line application for this position is available at http://ohrm.cc.nih.gov/nihhrm/ANNOUNCEMENT/ON-LINE.html

U.S. Citizenship is Required. NIH is an Equal Opportunity Employer. Minority and Women Applicants are Encouraged to Apply.

GLOBAL CAREER OPPORTUNITIES

need You and

"We

Your competence"

Our Central Nervous System Research Department invites applications for the position of a Senior Scientist

Chronic Neurodegeneration for the Neurodegeneration Program.

Your tasks:

You will be engaged in the development of innovative approaches to the treatment of chronic neurodegenerative diseases (e. g. Alzheimer's disease) and the identification of new drug targets.

Your qualifications:

This position requires a strong scientific background in Neurobiology with emphasis on chronic Neurodegeneration. The candidate is expected to have a distinguished record of research achievements in the field of neurodegeneration, experience in leading a research team and good interpersonal communication skills. Requirements include a Ph. D in Neurobiology, with at least 3 – 6 years of productive research, preferably in a pharmaceutical research environment. The successful candidate needs the ability to work efficiently on multiple projects in multi-disciplinary teams. Furthermore the candidate will have demonstrated ability to design and carry out a research project and the ability to conceive and develop new technological approaches to problem solving.

We offer you:

Generous research resources, including personel and instrumentation to establish a research team and close collaboration with a group of pharmacologists, biochemists, molecular biologists, chemists and a good salary and benefits.

We are a research-oriented pharmaceutical company. Our objective is to make a lasting contribution to the progress of medical science and to improve the quality of human life via the medium of innovative ideas. We are engaged in the development of highly advanced medical specialities: contrast media, hormone preparations and therapeutic drugs for the treatment of severe illnesses. More than 21,000 employees worldwide are engaged in the pursuit of these objectives. Health care is our primary objective which we approach with due responsibility to man and the environment for the establishment of a future worth living.

Interested individuals should submit a curiculum vitae, statement of research interests, salary requirements, copies of selected publications, and names of 3 references to: Schering Aktiengesellschaft, Personalabteilung FO, D-13342 Berlin

An initial reply will be provided by: Dr. Seilheimer Telephone No.: (0 30) 4 68-1 20 84 The application should be marked "Neurobiologist 2000" Additional positions we offer in the internet at: http://www.schering.de

Schering: Ideas in action

DISTINGUISHED RESEARCHER IN RESIDENCE Mountain Research Center Montana State University, Bozeman

One- to three-month fellowship for an internationally recognized scholar to conduct research bearing on any aspect of the MRC's mission: to develop, synthesize, and disseminate knowledge on the natural and interrelated cultural factors influencing the future of montane ecosyswithin at least one of the MRC Affinity Groups (Biosystematics, Ecological Processes, Physical Processes, Cultural Processes, or Geographic Information Analysis) and interacting with students and faculty. Full/Associate Professors on sabbatical encouraged to apply. Stipend up to \$5,000 per month for three months, plus relocation and housing allowance. Now accepting applications for fall 1998 or spring 1999. Submit curriculum vitae, letter explaining relevant research, and contact information for three references to: Distinguished Researcher Committee, Mountain Research Center, P.O. Box 173490, Montana State University, Bozeman, MT 59717-**3490.** Website: http://www.mrc.montana.edu for detailed job listing. Screening begins September 1, 1997 and continues until candidate is chosen. *ADA/Equal Op*portunity/Affirmative Action/Veterans Preference.

MARINE ECOSYSTEM SCIENTIST

The Center for Marine Conservation (CMC) seeks an accomplished Marine Scientist for its D.C. office to provide scientific leadership and technical expertise to its ecosystem protection efforts. This scientist will contribute to the development and implementation of CMC's programs and policies to protect marine ecosystems, improve water quality, and strengthen marine protected areas, utilizing the best available science. The successful applicant will conduct research, perform analyses, author papers, disseminate information, advocate science-based policies, and represent CMC to the media, government, and science and technical groups on these issues.

Qualifications: The ideal candidate would have a Ph.D. in marine ecology, water chemistry, or similar field, proven ability to publish relevant scientific and policy papers; in-depth knowledge of marine ecosystem protection, protected areas, point and non-point source pollution, pollution impacts, wastewater treatment, and the Clean Water Act; and several years marine conservation experience. CMC is a nonprofit committed to protecting ocean environments and conserving marine life. Send cover letter and résumé to: CMC, ATTN: Sharon Tryon, 1725 DeSales Street, N.W., Suite 600, Washington, DC 20036. No phone calls please. *Equal Opportunity Employer*.

IMMUNO AND BIOLOGICAL THERAPY DE-VELOPMENT. The Greenebaum Cancer Center (GCC) at the University of Maryland is interested in expanding its translational research program in immuno therapy and biological therapy. We are particularly interested in individuals with experience and expertise in vaccine development and laboratory research with clinical applications for immunotherapy and biological therapy. The Cancer Center and the University have a growing and sophisticated program in molecular genetics, gene therapy, experimental hematology, drug development and pharmacology, hematopathology, multiple aspects of drug resistance, and large clinical and laboratory pro-grams dealing with a broad range of oncology. Academic rank, tenure status, and salary commensurate with experience. A clinical background in hematology/oncology is preferred. Interested applicants should submit their curriculum vitae to: Sanford Stass, M.D., Director, Greenebaum Cancer Center, c/o JoAnn Gibbs, Di rector, Academic Programs, Department of Medicine, N3E10, University of Maryland Medical Center, 22 South Greene Street, Baltimore, MD 21201. The University of Maryland at Baltimore encourages women and minorities to apply and is an Affirmative Action/Equal Employment Opportunity/Americans with Disabilities Act Employer

RESEARCH ASSOCIATE position open to study signal transduction pathways in the regulation of smooth muscle contraction. Must have Ph.D. or M.D. with a minimum of three years postdoctoral training in smooth muscle research. Experience in protein biochemistry, mechanical measurements, and fluorescent assays is essential. Experience in student training and lab management is also required. Send curriculum vitae and names of three references to: Dr. Robert S. Moreland, Allegheny University Hospitals, Graduate, 415 19th Street, Philadelphia, PA 19146.

POSITIONS OPEN



CLINICAL NEUROSCIENCE ADVANCING NEUROSCIENCE RESEARCH AT THE NIH

The National Institute on Drug Abuse (NIDA), located in Rockville, Maryland, is seeking a HEALTH SCI-ENTIST ADMINISTRATOR, GS-601-13/14, with salary ranging from \$54,629 to \$83,922 commensurate with experience (physicians may be eligible for a Physician's Comparability Allowance). The selectee will serve as a Program Officer within the Etiology and Clinical Neurobiology Branch (ECNB) in the Division of Clinical and Services Research and will be responsible for developing and leading a national program in extramural research on the clinical neurobiology of drug addiction, with a particular focus on cognitive neuroscience. The ECNB recently has been established as part of a NIDA initiative to broaden its efforts in neuroscience research. This position represents an exciting opportunity to build a program based on substantial research in the basic neurobiology of addiction and to translate these findings by fostering a new research direction within the expanding clinical neuroscience program at NIDA. Successful appli-cants must possess a Ph.D. or M.D. (or equivalent degrees) and have relevant research experience and peer-reviewed publications. At least one year of specialized experience in cognitive and/or clinical neuroscience research is required.

Necessary information is provided in vacancy announcement number NIDA-97-42. To request a copy, please call the NIDA Management Analysis and Services Branch (MASB) at Telephone: 301-443-9663 or you may obtain a full vacancy announcement copy by FAX: 1-800-728-5627 and request document #2615. Applications must be submitted to: NIDA MASB, Room 10A-03, 5600 Fishers Lane, Rockville, MD 20857, ATTN: Maryann P. Postorino. Applications must be postmarked by the closing of the vacancy announcement. U.S. ditzenship is required.

NIH is an Équal Ópportunity Employer. Positions in this series have been determined to be underrepresented by minorities, women, and persons with disabilities. Members of these groups are encouraged to apply. Qualified candidates will receive consideration without regard to race, color, age, religion, gender, national origin, political affiliation, sexual orientation, marital status, union membership, or disability.

PRAIRIE RESTORATION ECOLOGISTS GRASSLAND AVIAN ECOLOGISTS (TWO POSITIONS EACH)

Illinois Natural History Survey (state-funded, fulltime). The ecologists are part of a team that plans, implements, and evaluates a program to monitor and research vegetation and avian communities of existing and future plant community restorations and reconstructions at the Midewin National Tallgrass Prairie or the Savanna Army Depot. Goals are to develop effective restorations, reconstructions, and monitoring protocols at the species and community levels with a focus on tallgrass prairie. Qualifications: at least a Master's degree (Ph.D. preferred) in general field of plant biology with expertise in plant ecology and community restoration ecology for Prairie Restoration Ecologist, or general field of avian ecology for Grassland Avian Ecologist. Salary: \$32,000 to 40,000 per year. To ensure full consideration, applications should be received by 29 August 1997. For complete position announcements and to apply, submit cover letter, résumé, and arrange for two letters of recommendation to be sent to: Ms. Jacqueline Sanders, Human Resources Manager, Prairie Restoration Ecologist Position, Illinois Natural History Survey, 607 East Peabody Drive, Champaign, IL 61820. Telephone: 217-244-7790. The Survey is an Equal Employment Opportunity/Americans with Disabilities Act Employer.

Position available immediately. **RESEARCH IN-STRUCTOR.** Requirements: Special interest in sickle cell anemia, acquired clotting disorders, and teaching. Four years of basic laboratory research experience, proficient in erythrocyte flux studies and non-isotope labeling of erythrocytes. Experience also required in immunohistochemistry, ELISA techniques, autoradiography, flow cytometry, and fluorescent microscopy. Please send in-quiries to: The University of Cincinnati, P.O. Box 670508, Cincinnati, OH 45267-0508.

POSITIONS OPEN

EntreMed, Inc., a publicly held biotech company in Rockville, Maryland, seeks two scientists with previous experience with Malaria or other parasitic organisms.

POSITION: SCIENTIST Ph.D. (Position 97KL02)

Molecular and cellular biology expertise required. Two- to four-year postdoctorate. Job description includes understanding the role of EBA-175, a malaria ligand, in merozoite invasion of ervthrocytes.

POSITION: RESEARCH ASSOCIATE (M.Sc., or B.S.) (Position 97KL03)

Experience of two to three years with cell culture and molecular biology techniques preferred. Job description includes sterile techniques, ELISA, IFA, and cell binding assavs.

EntreMed offers a highly competitive salary and benefit package. To apply: submit your curriculum vitae or résumé referring to the position number you are qualified for to:

> Maria M. Ruiz Senior Director Corporate Operations Human Resources Department 9600 Medical Center Drive, Suite 104 Rockville, MD 20850 FAX: 301-315-2437 E-mail: malenar@entremed.com

The Center for Biodiversity and Conservation of the American Museum of Natural History is seeking both a PROGRAM MANAGER and a PROGRAM COOR-DINATOR to implement a national and international program of geographic information system (GIS) based biodiversity research. Candidates for the Program Manager position must have either a Ph.D. or a Master's degree and at least five years of experience in biological GIS research; a proven track record in high quality GISbased reseach using a variety of software; demonstrated ability to design and implement research projects, publish, and raise funds for research. Candidates for the Program Coordinator position must have advanced, broad computer skills including significant experience with GIS, database, and Internet software. Background in conservation biology a plus. Both positions require strong interpersonal and communications skills. All candidates must send curriculum vitae, salary requirements, three references, and statement of program interests to: Director, Center for Biodiversity and Conservation, American Museum of Natural History, CPW@79th Street, New York City, NY 10024. Applications must be received by September 15, 1997, An Equal Opportunity Employer. No phone calls please.

TROPICAL FOREST ECOLOGIST

POSTDOCTORAL RESEARCH ASSOCIATE position to sample and analyze the vegetation and biodiversity of the southern Yucatan Peninsula in relationship to land use history and natural disturbance. The study is part of a collaborative effort between Harvard University and Clark University supported by the NASA LCLUC program that is linking remote sensing, cultural geography, and forest ecology and will involve extended field-work within a 6500 km² study region. Strong familiarity with tropical flora and vegetation analysis, commitment to interdisciplinary studies, established record of research, ability to conduct independent research, and fluency in Spanish and English are essential qualifications. The position starts by January 1, 1998, and is a one-year appointment with an approximate salary of \$30,000 and possibility for renewal. Please send a curriculum vitae, cover letter explaining your background and interest in the position, and three letters of recommendation to: David R. Foster, Director, Harvard Forest, P.O. Box 68, Petersham, MA 01366 by October 1, 1997.

Harvard University is an Equal Opportunity Employer and applications from minorities and women are strongly encouraged.

POSTDOCTORAL/MOLECULAR NEUROBIOLOGY

Highly-motivated candidates are sought for positions studying molecular signalling mechanisms involving cell recognition components (Mol. Biol. Cell 7:1977; J. Biol. Chem. 272:10769; Mol. Cell. Neurosci. 9:144). Students will interact with NIH-funded program-project group in developmental neuroscience. Successful applicants will have Ph.D. or M.D. in relevant research area and publications indicative of superior capabilities. Send résumé and names of three references to: William B. Stallcup, The Burnham Institute, 10901 North Torrey Pines Road, La Jolla, CA 92037. E-mail: stallcup@ljcrf.edu.

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St. Jude Children's Research Hospital, a premier center for biomedical investigation (www.stjude.org), has established a new Department of Structural Biology, which offers excellent opportunities in all areas of biophysical research. A number of positions at the postdoctoral and technician levels are available within the Department to work with recently hired faculty. Dr. Stephen White (one postdoc and one technician) is working on crystallographic analyses of protein-RNA and protein-DNA complexes involved in replication, transcription and translation. Dr. Richard Kriwacki (one postdoc and one technician) is performing nuclear magnetic resonance and biophysical studies of proteins and protein complexes involved in cell-cycle control, including cell-cycle inhibitors, tumor suppressors, and oncogenes. Dr. Hee Won Park (one postdoc and one technician) is interested in using X-ray crystallography to study receptor-mediated effects of transforming growth factor-beta and to study structure/function relationships of mammalian DNA repair enzymes.

Postdoctoral applicants should ideally have experience in several of the following areas: protein crystallography, protein crystallization, multidimensional, multi-nuclear NMR of macromolecules, molecular biology, protein over-expression and purification, protein-protein binding studies and protein folding studies. Research technician applicants should ideally have a M.S. or a B.S. with 3-5 years experience, and have an interest in original research and an aptitude for the use of complex instrumentation, such as UV/VIS and CD spectophotometers. Activities include molecular biology (PCR, DNA sub-cloning), protein over-expression and purification, protein crystallization, stable-isotope labeling of proteins, and laboratory management.

State-of-the-art equipment for protein crystallography, NMR and computer graphics has recently been installed in the Department, and facilities are also available for biochemistry and molecular biology. The Department occupies approximately 7,000 square feet on adjacent floors of the new Danny Thomas Research Facility. Danny Thomas founded St. Jude Children's Research Hospital and the hospital continues to receive support through the fund-raising efforts of the American Lebanese Syrian Associated Charities.

Please send a curriculum vitae and the addresses of three references to:

Dr. Stephen W. White, D. Phil Chairman, Department of Structural Biology St. Jude Children's Research Hospital 332 North Lauderdale Memphis, TN 38105

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Your competence"

Our Central Nervous System Research Department invites applications for the position of a

Senior Scientist Acute Neurodegeneration for the Neurodegeneration Program.

GLOBAL CAREER OPPORTUNITIES

Your tasks:

need

You an

You will be engaged in the development of novel treatments, discovering new target mechanisms and developing novel biological methods to evaluate the therapeutic potential of new compounds which will lead to better understanding and improved therapy.

Your qualifications:

This position requires an experienced background in CNS biology and pharmacology. Furthermore a good working knowledge in that area with regard to experimental animal models (e. g. MCAO) is needed. The successful applicant will have a distinguished record of research achievements in the field of neurodegeneration, experience in leading a research team and good interpersonal communication skills. Requirements include a Ph. D in Neurobiology, with at least 3 – 6 years of productive research, preferably in a pharmaceutical research environment.

We offer you:

Generous research resources, including personel and instrumentation to establish a research team and close collaboration with a group of pharmacologists, biochemists, molecular biologists, chemists and a good salary and benefits.

We are a research-oriented pharmaceutical company. Our objective is to make a lasting contribution to the progress of medical science and to improve the quality of human life via the medium of innovative ideas. We are engaged in the development of highly advanced medical specialities: contrast media, hormone preparations and therapeutic drugs for the treatment of severe illnesses. More than 21,000 employees worldwide are engaged in the pursuit of these objectives. Health care is our primary objective which we approach with due responsibility to man and the environment for the establishment of a future worth living.

Interested individuals should submit a curiculum vitae, statement of research interests, salary requirements, copies of selected publications, and names of 3 references to: Schering Aktiengesellschaft, Personalabteilung FO, D-13342 Berlin

An initial reply will be provided by: Dr. Seilheimer Telephone No.: (0 30) 4 68-1 20 84 The application should be marked "Neurobiologist 2000" Additional positions we offer in the internet at: http://www.schering.de

Schering: Ideas in action

The California Science Center, Biological Resources Division (BRD), U.S. Geological Survey, invites applica-tions for a **PERMANENT POSITION** to be headquartered at its Sequoia-Kings Canyon Field Station, southern Sierra Nevada. The Station, established in 1968, has a rich history of research in populations, communities, and eco systems; ongoing research programs focus on global change, watershed chemistry, invasive species, and fire history and effects. The core of the successful applicant's position will be to plan, coordinate, facilitate, and conduct high-priority research identified in the Sierra Nevada Ecosystem Project's recent Report to Congress. Applicants should have a strong commitment to the mission and a strong commitment to working closely with the land managers (primarily in the Department of the Interior) who will apply their research findings. This position will be a GS-13, FT, at a salary range of \$53,456 through \$69,492 per annum. Apply to: The Office of Personnel Management, 700 Fifth Avenue, Suite 5950, Seattle, WA 98104-5012. Announcement and application is available on the Internet at: http://www.usajobs.opm. gov, or call OPM Career America Connection at: 206-553-0888. Complete materials must be postmarked by the closing date shown on the OPM announcement. If interested, contact the Office of Personnel Management for the closing date of this announcement. An Equal Opportunity Employer.

The Institute of Medical Psychology and Behavioral Neurobiology invites applications for the HEAD OF A JUNIOR RESEARCH GROUP Cortical Reorganization and Learning in Humans to be established by the Volkswagen Foundation. Qualifications include Ph.D. or M.D. in behavioral neuroscience or behavioral neurology or psychophysiology. Applicants should have a strong background in neuroimaging (including MEG/EEG and fMRI/PET). Through its programme Junior Research Groups at German Universities the Volkswagen Foundation provides young and excellent scientists with the opportunity to lead a group of several coworkers or graduate students, thereby enabling them to carry out independent research work at an early stage in their career. A funding period of five years is envisaged. Interested applicants should send their curriculum vitae, list of publications, a description of previews, research activities, and names of three references to:

Niels Birbaumer, Ph.D. Institute of Medical Psychology and Behavioral Neurobiology University of Tübingen Gartenstraße 29 D-72074 Tübingen

POSTDOCTORAL FELLOWSHIP is available to study the effects of mechanical deformation on gene expression and tumor biology of transformed cells. Expertise in cell biology and molecular biology is preferred. The successful applicant will work with a growth factor research group (laboratory of Jung San Huang) in the Department of Biochemistry and Molecular Biology. Send curriculum vitae and the names and addresses of three references to: Frank E. Johnson, M.D., Department of Surgery, St. Louis University Medical Center, 3635 Vista, St. Louis, MO 63110-0250. Telephone: 314-577-8316; FAX: 314-771-1945. St. Louis University is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS available immediately in an NIH-funded project to determine the structure and signal transduction mechanism of the ANF receptor. Experience in protein chemistry (e.g., chemical modification, affinity-labeling, mapping, mass spectrometry), biophysical techniques (e.g., BJAcore, CD, fluorescence, light scattering), and site-directed mutagenesis would be desirable. Send curriculum vitae and names of three references to: Dr. Kunio Misono, Department of Molecular Cardiology, The Lerner Research Institute, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195-5071. FAX: 216-444-9263; e-mail: misonok@ccsmtp.ccf.org.

POSTDOCTORAL POSITION available immediately for research on the ecophysiology of calcium nutrition in temperate trees. Potential topics include bases for interspecific differences in uptake and use of calcium, and effects of calcium on sapling survival. Successful applicant will join a large, collaborative study of feedbacks between canopy tree dynamics and calcium cycling in northeastern forests. Send letter of interest, curriculum vitae, and names of three references to: Dr. Charles D. Canhan, Institute of Ecosystem Studies, Box AB, Millbrook, NY 12545.

POSITIONS OPEN

SANDIA NATIONAL LABORATORIES POSTDOCTORAL POSITIONS IN COMPUTATIONAL CHEMISTRY

Sandia National Laboratories in Livermore, California, has an ongoing program in computational chemistry which has immediate openings for Postdoctoral Re searchers. Areas of research include the modeling of proteins, organic polymers, and small molecules; using a variety of computational methods such as molecular mechanics, molecular dynamics, and ab initio quantum chemevelopment and applications work. Successful anddates shall have a Ph.D. in chemistry, biophysics, or a related field, and proven experience in software development or application of computational chemistry methodologies. Knowledge of C and C++ is highly desirable. Experience in one of the following modeling areas would be of particular interest: proteins (including antibody modeling), polymers (mechanical and chemical properties), small molecule/macromolecule interactions. The applicant must also have good communication skills, both oral and written. The research group has extensive computing resources including high-end graphics workstations, high-performance clusters of multiprocessor PC's, SMP workstations, as well as massively parallel machines including an Intel Paragon and teraflop MPP. We feel that this position will provide especially exciting prospects for candidates with a strong background in computational methods who are interested in developing innovative solutions to applied problems. Salary and fringe benefits are extremely competitive. Candidates should send curriculum vitae, reprints, statement of research expertise and interests, and uncertified copies of college transcripts to:

Dr. Diana Roe Sandia National Laboratories c/o Anna Isham, MS 9111 Human Resources Department CA0037 P.O. Box 969 Livermore, CA 94550

Deadline is October 1, 1997. U.S. Citizenship is normally required. Equal Opportunity Employer/Affirmative Action Employer.

POSTDOCTORAL POSITION available for *in vivo* studies of memory B cell development and somatic mutagenesis of antibody genes at the single cell level. Candidares should have a strong background in molecular immunology. Studies will involve high-resolution cell sorting by FACS and optical trapping technology, single-cell/molecule PCR, transgenic construction, and RNA processing. Send curriculum vitae to: Dr. Lawerence J. Wysocki, Division of Basic Sciences K902, National Jewish Medical and Research Center, 1400 Jackson Street, Denver, CO 80206. FAX: 303-270-2182; e-mail: wysockil@njc.org. Equal Oppenmitp/.4fjimative .detion Institution.

The University of Pennsylvania has an immediate opening for a **POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE** with strong background in molecular biology and protein chemistry for investigation of novel regulators of the plasminogen activator system. Please contact: **Dr. Doug Cines, Coagulation Department**, 7 **Founders Pavilion, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104-4283. FAX: 215-662-7945.** *Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS are available to study synexin interaction with biological membranes, and regulation of surfactant protein expression in fetal lungs. Previous training in cellular and molecular biology and understanding of protein chemistry required. Please send résumé and names and addresses of three references to: Dr. Avinash Chander, Department of Pediatrics, Division of Neonatology, Jefferson Medical College, Suite 700, 1025 Walnut Street, Philadelphia, PA 19107.

POSTDOCTORAL POSITION available to study ion channels in the microcirculation. Experience in electrophysiology and/or vascular cell physiology preferred. Send curriculum vitae and names of three references to: Dr. William F. Jackson, Department of Biological Sciences, Western Michigan University, Kalamazoo, MI 49008. FAX: 616-387-2849; cmail: jackson@wmich.edu. Affinative Action/Equal Oppartuality Employer.

POSITIONS OPEN

POSTDOCTORAL ASSOCIATE/RESEARCH FELLOW CENTER FOR WATER AND THE ENVIRONMENT Natural Resources Research Institute University of Minnesota, Duluth

The Natural Resources Research Institute (NRRI) has an opening for a Postdoctoral Associate/Research Fellow to work on the integration of a forest landscape and succession model with forest bird habitat and landscape information. The work is part of a comprehensive effort to predict current and future populations of forest birds in Minnesota and forests in the Great Lakes region in response to scenarios of change due to logging, natural disturbance, and potential climate change.

Qualifications: Postdoctoral Associate—Ph.D. in the biological sciences or related area and experience in modelling, geographic information systems, and multivariate statistical analysis. Research Fellow—Master's degree in the biological sciences or related area by date of hire.

In addition to minimum qualifications, education and experience in forest and landscape ecology, animal biology, and conservation biology is desired, as well as experience working as an effective member of professional work teams.

Starting date is fall 1997. Verification of degree status will be required of all finalists for the position. To apply send a letter of application, résumé, and the name, address, and telephone number of three references. Applications must be postmarked by 30 August 1997. Send applications to: **Postdoctoral Associate/Research** Fellow Search Committee, NRRI Box SCI, 5013 Miller Trunk Highway, Duluth, MN 55811. Website: www.nrri.umn.edu.

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

POSTDOCTORAL POSITIONS MOBILE SELF-SPLICING INTRONS

Dynamics of self-splicing introns are studied at the levels of RNA, DNA, and protein accessories. Projects include analysis of catalytic RNAs and DNA-based intron mobility using genetic, biochemical, and structural approaches. Broad choice of projects. Experience in genetics, DNA recombination mechanisms, RNA splicing, protein structure and/or nucleic acid chemistry desirable. Competitive, federally-funded salary (through Health Research, Inc.). Interested candidates should forward their curriculum vitae and have three letters of reference sent to: Dr. Marlene Belfort, Wadsworth Center, New York State Department of Health and Department of Biomedical Sciences, State University of New York, Box 22002, Albany, NY 12201-2002. Equal Opportunity/Affinaative Action Employer.

IMMUNOLOGIST/MOLECULAR BIOLOGIST

POSTDOCTORAL POSITION available to study MHC Class I in humans and non-human primates. Ph.D. or M.D. with experience in molecular biology and/or cellular immunology. Send curriculum vitae, description of previous research experience, and three letters of recommendation to: David I. Watkins, University of Wisconsin-Madison, Wisconsin Regional Primate Research Center, 1220 Capitol Court, Madison, WI 53715-1299. Telephone: 608-265-3380; FAX: 608-263-4031. Deadline: August 31, 1997. The University of Wisconsin is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to: 1) use molecular and cellular approaches to study mechanisms of cell death in oligodendrocytes; 2) study the role of these mechanisms in the pathogenesis of oligodendrocyte injury in cerebral palsy and in stroke. Send curriculum vitae, a letter describing research background and interests, and the names and telephone numbers of three references to: Dr. Joseph Volpe or Dr. Paul **Rosenberg, Children's Hospital**, \approx 00 Longwood Avenue, **Boston, MA 02115. FAX: 617-730-0416**. An Equal Opportunity Employer.

POSTDOCTORAL POSITIONS. To study regulation of gene expression during fat synthesis and adipogenesis. Research areas include 1) mode of action and downregulation of an inhibitor of adipocyte differentiation; 2) nuclear factors that interact with the response elements of lipogenic enzyme genes for insulin regulation and its signal transduction pathway. Send curriculum vitae and names of references to: Dr. Hei Sook Sul, Department of Nutritional Sciences, University of California, Berkeley, CA 94720.

Head, Genomics Technologies Unit, Center for Genomics Research at Karolinska Institute

In May of 1997 the most extensive university-industry collaboration in Sweden was announced. At that time, Pharmacia & Upjohn agreed to support a new Center for Genomics Research at Karolinska Institute in Stockholm. This new Center has Departmental status at Karolinska Institute and has secured existing laboratory space from September of 1997. In addition to the Center itself, collaborations with leading preclinical as well as clinical research groups throughout the Karolinska Institute are currently being established.

Center scientists will receive appropriate academic appointments and there seems to be a tremendous interest for joining this new entity expressed spontaneously in the mail received. Certain positions will be filled through employment at Pharmacia & Upjohn's Stockholm research campus, located near the Karolinska Institute, with leave af absence to conduct work at the Center.

- The mandate of the Genomics Technologies Unit is to develop core competencies in Gene Sequencing Technologies, DNA Chip Technologies, Display Technologies and Gene Mapping.
- The work is expected to be of front-line exploratory nature.
- The successful candidate is a leading scientist who is familiar with the challenges of academia and the realities of pharmaceutical industry environment.

Letters of interest and Curriculum Vitae may be directed to :

Dr. Claes Wahlestedt, Director Center for Genomics Research Karolinska Institute SE-171 7 7 Stockholm, Sweden Fax: + 46 8 32 39 50 E-mail: claes.wahlestedt@cgr.ki.se

Pharmacia &Upjohn



Genentech, Inc.

What does your work mean to you? At Genentech, our work represents a commitment to progress, a quest for discovery. What matters to us? Something incredibly simple - bettering human health. Whether experimenting with a next-generation medicine, or producing one of our five marketed products in manufacturing, you'll play a critical part in making our vision a reality. Each day, we make it more real. If you share that passion for life, imagine what we could do with your help. It's incredible, and extraordinary.

Research Assistant/Necropsy Specialist

You will support necropsy activities for the Pathology department and other investigations not requiring pathologic examination. Your responsibilities will include performing necropsies on various species, assisting with blood collections, performing perfusion techniques, using anesthesia and euthanasia techniques according to company guidelines, utilizing gross photographic skills, trimming tissues and performing whole body cryotomy.

Requirements include experience with and applied knowledge of necropsy techniques. A BS in a life science is preferred, but an AA with 2-5+ years of experience is acceptable. Excellent communication, organization and problem-solving skills are essential. You must have a willingness and enthusiasm for learning new methods and techniques and be a strong team player.

Our progressive benefits package includes full medical/dental/vision, 3 weeks vacation, a sabbatical program, a stock purchase plan and health club membership. Send your resume, indicating Job Code SCI722, to: Genentech, Inc., Human Resources, P. O. Box 1950, South San Francisco, CA 94083-1950. Please use plain typefaces, we cannot accept faxes. You may e-mail your resume indicating Job Code to jobs@gene.com (ASCII files only with a maximum line width of 76 characters). Genentech is an Equal Opportunity Employer. We value the contributions of our diverse workforce.

www.gene.com

Apoptosis/Cell Death

IDUN Pharmaceuticals is an early stage biopharmaceutical company focused on the biochemical mechanisms of cell death, with therapeutic applications to neurodegenerative diseases, cancer, and inflammation.

Positions are available to join a research team evaluating novel compounds which modulate apoptosis. Opportunities are available in the following areas:

Pharmacology: Ph.D. in Pharmacology, 3–5 years industry experience required. Background in inflammation, including experience with a variety of disease models, is preferred. Skills in developing animal models for efficacy testing are required. Job Code: PI.

Drug Metabolism: Ph.D. or experienced M.S. with background in drug metabolism/pharmacokinetics to join active small-molecule discovery group. Experience with analytical methodology, assay development, and PK modeling required. Job Code: DM

Cellular Immunologist: Ph.D. with experience in the isolation and functional characterization of subpopulations of lymphocytes and hematopoietic cells to support preclinical evaluation of small molecule modulators of apoptosis. Experience with assays to measure apoptosis and proliferation, FACS analysis, and a strong desire to play a key role in therapeutic drug discovery are required. Job Code: CI.

IDUN Pharmaceuticals offers the excitement of a rapidly growing company in La Jolla, CA. We offer an attractive compensation and benefits package including equity participation. For confidential consideration, please send your curriculum vitae (refer to job code) to:

> IDUN Pharmaceuticals 11085 N. Torrey Pines Rd. #300 La Jolla, CA 92037 EOE

Want to get your foot in the door?

Then let SCIENCE open some doors for you by attending the **SCIENCE Career Fairs.** SCIENCE Career Fairs offer the perfect opportunity for scientific professionals to meet in person with representatives from top biotechnology and pharmaceutical companies, universities, governmental agencies, and institutions.

UPCOMING 1997 SCIENCE CAREER FAIRS

Cambridge, MA on the MIT Campus 84 Massachusetts Ave., Stratton Building Student Center, 2nd Floor, La Salla Room 5 Sept.: 11 am -4 pm 6 Sept.: 11 am -3 pm Palo Alto, CA on the Stanford Campus Tresidder Memorial Union 3 Oct.: 11 am – 4 pm 4 Oct.: 11 am – 3 pm

To pre-register:

Please submit your résumé or CV via FAX: (202) 289-6742,or via e-mail: careerfairs@aaas.org. Indicate the career fair location for which you are submitting. Remember to bring multiple copies of your CV or résumé with you to the Career Fair; a copy will be necessary to gain admission to the hall. Admission to all of the events is FREE.

Do not contact MIT or Stanford directly. They are not responsible for organizing these events.









CALL FOR COLLABORATIVE RESEARCH PROPOSALS

The EJIVR is a newly-established research institute which aims to carry out innovative scientific research, in particular centred on understanding immune responses to infectious agents and tumours, that will further the development of therapeutic and prophylactic vaccines. To enhance in-house research activities, the EJIVR has funding available to support collaborative research projects with external scientific groups. Selected laboratories with a proven track record in areas that are of current interest to the EJIVR will be awarded 3-5 year grants to fund research complementary to that ongoing within the institute.

The memory group at the EJIVR, led by Dr. David Tough, is investigating the mechanisms involved in the induction and maintenance of immune memory. The group's expertise is in cellular immunology and the use of mouse model systems to study lymphocyte lifespan *in vivo*. Applications are invited from investigators with expertise that will complement that of the

group, and in particular those with interests in one of the following areas: (1) production and purification of novel biological or synthetic compounds for use in studying the mechanisms by which adjuvants promote immune responses; (2) lymphocyte lifespan in humans; (3) study of differential gene expression in lymphocyte subsets, including the cloning of novel genes; (4) signalling pathways involved in lymphocyte activation and death; (5) immunological memory in the mucosal immune system.

In the the first instance, applicants are invited to submit a twopage project proposal which should outline the strengths of their laboratory and the contribution they would propose to make to a collaborative project. These proposals will be reviewed by both the EJIVR and members of the EJIVR scientific advisory committee. Selected applications will then be re-worked into joint project grants for approval by the MRC or BBSRC.

For further information, contact David Tough at the Edward Jenner Institute for Vaccine Research, Compton, Newbury, Berkshire RG20 7NN, telephone 01635 577915 (e-mail david.tough@bbsrc.ac.uk). The deadline for applications is November 1st 1997).

An Equal Opportunity Employer

Postdoctoral Fellowships

The Mary Ingraham Bunting Institute of Radcliffe College, a multidisciplinary residential research center, offers FELLOWSHIPS for women scholars, scientists, artists, and writers. Office space, auditing privileges, and access to libraries and most other resources of Radcliffe College and Harvard University are provided. Residence in the Boston area and participation in the Institute community are required during fellowship appointment (September 1998).

SCIENCE SCHOLARS Fellowship Program (funded by the Office of Naval Research) is open to women who have held a Ph.D. for at least two years in the fields of astronomy, molecular and cellular biology, biochemistry, chemistry, cognitive and neural sciences, computer science, electrical engineering, geology, materials science, mathematics, physics, naval architecture and ocean engineering, oceanography, and all fields that relate to the study of oceans. *Must be a U.S. citizen*. Stipends are \$39,700 plus \$3,000 in research expenses for a year appointment starting September 15, 1998.

BIOMEDICAL RESEARCH Fellowship Program (pending renewal by The Burroughs Wellcome Fund) is open to women who have held a Ph.D. for at least two years in all fields of biomedical research. *Must be a U.S. citizen or permanent resident*. Stipends are \$39,700 plus \$3,000 in research expenses for a year appointment starting September 15, 1998.

Application deadline: October 15, 1997. Write or call for application: **34 Concord Avenue**, **Cambridge**, **MA 02138 Telephone: 617-495-8212; e-mail: Bunting_Fellowships@** radcliffe.harvard.edu. THE EDWARD JENNER INSTITUTE FOR VACCINE RESEARCH

Promoting Health through Vaccine Research

GLOBAL CAREER OPPORTUNITIES 香港大學 THE UNIVERSITY OF HONG KONG

Professor: Chair of Botany

(Re-advertisement)

Applications are invited for appointment as Professor: Chair of Botany (RF-97/98-5), tenable immediately. Appointment will be made initially on a three-year fixed-term basis.

Applicants should have strong academic qualifications and an outstanding record of research and publications. The appointee is expected to provide academic leadership in teaching and research and should specialise in one of the following research areas: Plant Molecular Biology and Biotechnology; Developmental and Cell Biology. The University reserves the right not to fill the Chair or to fill the Chair by invitation or to make an appointment at a lower level.

Annual salary [attracting 15% (taxable) terminal gratuity] will be within the professorial range, which is not less than HK\$1M (approx. US\$129,870; US dollar equivalent as at 29 July 1997) with starting salary depending on qualifications and experience.

At current rates, salaries tax will not exceed 15% of gross income. Leave, medical/dental benefits, an allowance for children's education in Hong Kong, and housing at a charge of a percentage of salary, currently 7.5%, are provided.

Review of applications will begin immediately and continue until the position is filled by a qualified candidate. Further particulars and application forms may be obtained on WWW at http://www.hku.hk, or from the Appointments Unit, Registry, The University of Hong Kong, Hong Kong (Fax (852) 2540 6735/2559 2058; E-mail: APPTUNIT@REG.HKU.HK).

The University is an equal opportunity employer and is working towards a smoke-free environment

MRI POSTDOCTORAL POSITIONS

Positions are available immediately in the Laboratory for Functional Magnetic Resonance Research at the John P. Robarts Research Institute, an affiliate institute of the University of Western Ontario. The Laboratory has a state-of-the-art Varian/Siemens UNITY INOVA 4 T whole body research scanner (24 hours-a-day access) in a dedicated facility. Research includes numerous studies in functional imaging and spectroscopy of the brain (neuroscience, hardware, sequences) and a newly evolving pro-gram in heart imaging. The lab is well supported by the NIH, the MRC (Canada), the McDonnell-Pew Foundation, the Ontario Laser and Lightwave Research Centre and Siemens Medical Systems. Superb hardware and technical support is available and research animal and patient access is available through the Faculty of Medicine and the London Health Sciences Centre. The ideal candidates will have a strong background in NMR imaging and/or spectroscopy. Familiarity with Varian Vnnir software would be an asset. Successful applicants will be encouraged to apply for competitive awards in their first year. The potential exists to convert these into staff positions at a later date for exceptional candidates. Please reply with a curriculum vitae and the names of two references to: Dr. Ravi S. Menon (fMRI, spectroscopy) or Dr. Maria Drangova (cardiac imaging), Laboratory for Func-tional Magnetic Resonance Research, The John P. Robarts Research Institute, P.O. Box 5015, 100 Perth Drive, London, Ontario, Canada N6A 5K8. Telephone: 519-663-3408; FAX: 519-663-3403.

BASIC AND CLINICAL POSTDOCTORAL FELLOWS THE CENTER FOR EXCELLENCE IN CARDIOVASCULAR-RENAL RESEARCH University of Mississippi Medical Center

The Center for Excellence in Cardiovascular-Renal Research of the University of Mississippi Medical Center invites applications for Postdoctoral Fellows to train in basic and clinical cardiovascular and renal research. Candidates must have a Ph.D. or an M.D. degree and be a permanent resident or citizen of the United States. Postdoctoral Fellows will have the opportunity to learn a broad range of methods and research strategies including molecular, biochemical, cellular, whole organ, and integrative bio logical approaches and training in clinical trials management and epidemiology. Some of the current research areas in the Center include vascular biology, hypertension, congestive heart failure, kidney failure, atherosclerosis, stroke, diabetes and obesity, pre-eclampsia, and sickle cell anemia. Applicants should send a curriculum vitae, a statement of research interest and career goals, and the names of three references to: The Center for Excellence in Cardiovascular-Renal Research, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505. Equal Opportunity Employer, Minorities/Female/Disabled/Veterans

POSTDOCTORAL POSITION

A Postdoctoral position is immediately available in the Clinical Branch of the National Eye Institute, National Institutes of Health. Areas of laboratory investigation will include the role of cell adhesion molecules, co-stimulatory molecules, and cytokines in ocular inflammatory diseases caused by autoimmunity or allergy (Eur. J. Immunol 26:995, 1996; Clin. Immunol. Immunopathol. 83:45, 1997, 67:143, 1993.

Candidates should have a Ph.D. or M.D. degree and experience in cellular or molecular immunology

Please send your curriculum vitae and three references to: Scott M. Whitcup, M.D., National Eye Institute, National Institutes of Health, 10 Center Drive, Building 10, Room 10N-202, Bethesda, MD 20892-1858. FAX: 301-496-7295.

The NIH is an Equal Opportunity Employer.

POSTDOCTORAL POSITION is available to study phosphoinositide-protein interactions and the role of lipid kinases in intracellular signaling. Candidates should possess a Ph.D. and/or an M.D. degree but less than five years of postdoctoral experience. U.S. citizenship is not required. Individuals experienced in gene cloning/mutagenesis/expression techniques with interest in protein structure-function analysis should send curriculum vitae and the names of three potential references to: Dr. Tamas Balla, Endocrinology and Reproduction Research Branch, National Institutes of Health, 49 Convent Drive, Building 49, Room 6A35, Bethesda, MD 20892-4510. NIH is an Equal Opportunity Employer. Deadline for responses is September 15, 1997

POSITIONS OPEN

POSTDOCTORAL POSITION

A postdoctoral position is available immediately for a highly motivated biomolecular NMR spectroscopist. The successful candidate will be part of an interdisciplinary team whose goal is to implement a Customized Desktop Experiment Management System, for NMR studies of biomolecules and procedures for archiving the data in local and publicly accessible databases. The project is a collaboration with the National Magnetic Resonance Facility at Madison (website: www.nmrfam.wisc.edu) and BioMagResBank (website: www.bmrb.wisc.edu) headed by Professor John L. Markley in the Biochemistry Department, the ZOO research team, directed by Professors Yannis Ioannidis and Miron Livny in the Computer Sciences Department (website: www.cs.wisc. edu/ZOO/), and the National Center for Supercomputing Applications (website: www.ncsa.uiuc.edu). The candidate will conduct original research in structural NMR and provide expertise for the design and implementation of the ZOO-NMR interface and for the development of deposition and validation procedures for NMR structural data at BMRB.

Please contact: John L. Markley, Department of Bio chemistry, University of Wisconsin-Madison, Madison, WI 53706. Telephone: 608-263-9349; FAX: 608-262-3453; e-mail: markley@nmrfam.wisc.edu. The University of Wisconsin is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS **IMMUNOPATHOGENESIS**

Postdoctoral positions to study immunopathogenesis of infectious and autoimmune diseases. Current studies include cytokine regulation of innate immunity, in vivo effector functions in the central nervous system and liver, cytokine and sex hormone regulation of APC activity, antigen processing and CTL memory. Experience in immunology, autoimmune disease, or viral pathogenesis essential. Projects will join active collaborations with Drs. G. Dennert, C. Bergmann, D. R. Hinton, and M. M. C. Lai. Send curriculum vitae and names of three references to: Dr. Stephen Stohlman, Departments of Neurology and Molecular Microbiology and Immunology, USC School of Medicine, MCH 142, 1333 San Pablo Street, Los Angeles, CA 90033. FAX: 213-225-2369; e-mail: cbergman@hsc.usc.edu. Equal Opportunity Employer.

COMPUTATIONAL BIOLOGY/BIOLOGICAL SEQUENCE COMPARISON

POSTDOCTORAL POSITION available immediately to develop more powerful methods for protein and DNA sequence comparison. Approaches include evaluation of sequence comparison methods, multiple alignment algorithms, parallel computation, evolutionary tree construction, and sequence/structure comparisons. Candidates with backgrounds in molecular evolution, biological sequence comparison, computational biology and other areas of molecular biology are encouraged to apply. Send a curriculum vitae and have letters from two references sent to: William R. Pearson, Department of Biochemistry, Box 440 Jordan Hall, University of Virginia, Charlottesville, VA 22908. FAX: 804-924-5069; e-mail: wrp@virginia.edu. The University of Virginia is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available. Projects will focus on the physiological regulation of myocardial gene expression. The mission of the Institute is to bring together a range of disciplines for the study of the cardiovascular system. Individuals should have a strong background in biochemistry, physiology, or molecular biology. Applicants should send curriculum vitae and list of references to: John G. Edwards, Ph.D., Cardiovascular and Pulmonary Research Institute, Alle-gheny University of the Health Sciences, 15th Floor outh Tower, 320 East North Avenue, Pittsburgh, PA 15212-4772.

POSTDOCTORAL POSITION MOLECULAR ONCOLOGY HARVARD MEDICAL SCHOOL

Position available to study DNA repair and tumor sup pression pathways in mammalian cells. Applicants should be highly motivated and have extensive experience in molecular biology and biochemistry. Send curriculum vitae and references to: **Dr. David Weaver, Center for Blood** Research, Warren Alpert Building, 200 Longwood Avenue, Boston, MA 02115. FAX: 617-278-3131; e-mail: dweaver@cbr.med.harvard.edu

POSITIONS OPEN

POSTDOCTORAL POSITIONS

Growth Factors in Cardiovascular Function and Homeostasis. Projects will utilize mouse genetic, physiological, cellular, and molecular approaches on transgenic and knockout models to determine the mechanisms underlying the role of FGF2 and TGF β 1 in normal cardiovascular function and in the response of the heart and vasculature to stress and injury

Genome Stability. Genetically engineered p53 and TGFB1 mice will be utilized to determine the molecular basis and tissue specificity of the mutational events that occur at higher frequency in the absence of these genes. Similar approaches will be used to determine the effects of chronic inflammation on genome instability.

Epithelial-Mesenchymal Interactions during Development. TGFB2 plays an essential role in the epithelialmesenchymal interactions involved in the development of the eye, ear, heart, skeleton, and urogenital tract. Projects will use genetic engineering and molecular approaches to delineate the molecular and developmental pathways underlying these defects.

Reproduction. A deficiency in TGFB1 leads to implantation failure. Projects will apply morphological, cell biological, and biochemical techniques to genetically engineered mice to determine the role of TGFB1 in implantation. Send curriculum vitae and names, addresses, and telephone numbers of references to: Tom Doetschman, Professor of Molecular Genetics, University of Cincinnati College of Medicine, Cincinnati, OH 45267-0524. Website: http://www.med.uc.edu.

POSTDOCTORAL POSITION OPEN

The Brazilian Synchrotron Light Source-LNLS/ CNPq (website: www.hls.br)—is expanding its scientific staff. It has a vacancy for a scientist to work on gene expression, protein purification, and targeted mutagenesis. This position is suitable for young researchers with postdoctoral experience. Staff members of LNLS are expected to help its users to make adequate use of the facility. In addition, they will run their own research projects.

LNLS will financially support the initial installation of the new laboratory, but the researcher will be expected to raise funds for expansion and maintenance. He/she will also assist users of LNLS facilities to express/mutate genes and purify proteins for structural studies.

Informal enquiries about the position may be made to Professor Rogerio Meneghini, e-mail: rogmeneg@ iq.usp.br. To apply, submit a full résumé, including the names of two references, to: Research/LNLS, Cx. P. 6192, Campinas 13083-970 SP, Brazil by October 31, 1997

POSTDOCTORAL POSITION MUCOSAL IMMUNOLOGY

A POSTDOCTORAL POSITION is available immediately to study the molecular and cellular events governing the development, function, and regulation of the murine intestinal immune system. Applicants should have a Ph.D., M.D., or D.V.M. with a strong background in immunology, infectious diseases, molecular biology, or endocrine biology. Screening begins imme-diately and will continue until the position is filled. Send curriculum vitae and the names of three references to: Dr. John R. Klein, Department of Biological Science, University of Tulsa, 600 South College Ave-nue, Tulsa, OK 74104. FAX: 918-631-5005; e-mail: biol_jrk@centum.utulsa.edu. The University of Tulsa is an Equal Employment Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION DUKE UNIVERSITY MEDICAL CENTER

Available immediately, to study the effects of adenovirally mediated gene transfer on vascular smooth muscle proliferation in vitro and in vivo. Experience in molecular biology, virology, histopathology, or animal surgery is required. Send curriculum vitae and the names of three references to: Neil J. Freedman, Division of Cardiology, Box 31126, Duke Medical Center, Durham, NC 27710. E-mail: freed002@mc.duke.edu.

POSTDOCTORAL POSITION available to motivated graduate to study regulation of macrophage gene expression and mouse models of atherosclerosis. Skills in molecular biology, genetics, histology, and mouse models desirable. Send or e-mail curriculum vitae and refer-ences to: Dr. Jonathan Smith, Box 179, The Rockefeller University, 1230 York Avenue, New York, NY 10021. E-mail: smithj@rockvax.rockefeller.edu. Affirmative Action/Equal Opportunity Employer

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CALL FOR COLLABORATIVE RESEARCH PROPOSALS

The EJIVR is a newly-established research institute which aims to carry out innovative scientific research, in particular centred on understanding immune responses to infectious agents and tumours, that will further the development of therapeutic and prophylactic vaccines. To enhance in-house research activities, the EJIVR has funding available to support collaborative research projects with external scientific groups. Selected laboratories with a proven track record in areas that are of current interest to the EJIVR will be awarded 3-5 year grants to fund research complementary to that ongoing within the institute.

The viral immunlogy group at the EJIVR, led by Dr Persephone Borrow, is studying the induction and regulation of the immune response during virus infections, with emphasis on virus-immune system interactions that occur during the establishment of persistent infections, and mechanisms by which virus infections may modulate immune functions. Applications are invited for collaborative research proposals to study human virus infections including HIV-1, or relevant animal models, especially SIV. Of particular interest would be proposals from investigators with areas of expertise that will complement those of the group, including (1) clinicians and/or virologists studying interesting patient populations; (2) groups focusing on the innate immune response and/or early virus-antigen presenting cell interactions; and (3) those using novel technologies to follow aspects of the virus-specific immune response including T cell heteroclonality and CD4- T cell functions.

In the the first instance, applicants are invited to submit a twopage project proposal which should outline the strengths of their laboratory and the contribution they would propose to make to a collaborative project. These proposals will be reviewed by both the EJIVR and members of the EJIVR scientific advisory committee. Selected applications will then be re-worked into joint project grants for approval by the MRC or BBSRC.

For further information, contact Persephone Borrow at the Edward Jenner Institute for Vaccine Research, Compton, Newbury, Berkshire RG20 7NN, telephone 01635 577913; (e.mail seph.borrow@bbsrc.ac.uk). The deadline for applications is November 1st 1997.

An Equal Opportunity Employer

THE EDWARD JENNER INSTITUTE FOR VACCINE RESEARCH

Promoting Health through Vaccine Research



U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS)

Supervisory Statistician (General), GS-1530-14 Office of the Director, Beltsville Area Beltsville Agricultural Research Center Beltsville, Maryland

ARS is seeking a Supervisory Statistician to serve as Director of Biometrics staff. Provides statistical consulting and data analysis, trains researchers in statistical methods, and uses sta-tistical analysis software. Supervises statisticians and support staff. In addition to meeting basic qualifications, candidates must have: (1) ability to advise and train others on the use of statistical and mathematical concepts, and sta-tistical design, methodology, analysis, and in-terpretation; (2) ability to modify and develop new statistical methods and approaches where current methodologies are not adequate or effective; (3) knowledge of computerized statisti-cal analysis software, including PC-SAS; (4) ability to motivate, train, and provide work guid-ance to subordinates. Must also have knowledge of statistical theory and methods applicable to life sciences research. *Must be U.S. citizen*. Ph.D. is desirable. Salary range \$64,555 to \$83,922 per year. Applications must be post-marked by 9/8/97. Applicants should follow instructions in vacancy announcement number ARS-X7B-178, obtainable by calling 301-344-4638, or access Job Opportunities on ARS home page http://www.ars.usda.gov. Applica-tions in response to this advertisement should be marked ARS-X7B-178/B-7-28

USDA is an Equal Opportunity Employer.

Geron Corporation, located in the San Francisco Bay Area, is pioneering new approaches to freat age related diseases including cancer. Geron is the first biotechnology company to focus exclusively on the development of therapeutic agents for age-related diseases emerging from new advances in molecular and cellular gerontology.

Postdoctoral Positions Telomere Biology, Cancer, and Aging

Geron Corporation has recently cloned a key protein component of human telomerase. Telomerase is a ribonuclear protein with a central role in cancer progression and aging. Immediate openings are available for postdoctoral fellows to study the molecular biology and biochemistry of aging and cancer. You will join on-going projects investigating the biochemistry of telomerase or the interaction of the telomerase RNA and protein components with other telomere components and the cellular systems regulating growth and division. Candidates should have a strong background in molecular biology, biochemistry, or cell biology.

Please send CV to: Geron Corporation Attn: HR 230 Constitution Drive Menlo Park, CA 94025



POSTDOCTORAL POSITION available to study receptor tyrosine kinase function in embryogenesis and oncogenesis using genetically engineered mice as model systems. Investigations focus on molecular dissection of, and discovery of novel genes associated with, receptor signaling pathways involve in (1) embryonic induction and patterning in organogenesis, and (2) the development and progression of relevant tumors, with emphasis on malignant melanoma. Extensive molecular biology experience required. Candidates must have a Ph.D. and/or M.D. and less than five years of postdoctoral training. Position available on or after Öctober 1, 1997. Send cover letter, curriculum vitae and references to:

Glenn Merlino, Ph.D., Chief Molecular Genetics Section Laboratory of Molecular Biology NCI, Building 37, Room 2E24 Bethesda, MD 20892-4255 E-mail: gmerlino@helix.nih.gov

The National Cancer Institute is an Equal Opportunity Employer Selection for this position will be based on merit, with no discrimination for nonmerit reasons such as race, color, religion, gender, national origin, politics, marital status, physical or mental disability, age, sexual orientation, or membership or nonmembership in an employee organization.

POSTDOCTORAL RESEARCHER

The Marine Life Research Group/California Cooperative Oceanic Fisheries Investigations of the Scripps Institution of Oceanography invites applications for a Post-doctoral Investigator in California current studies for one or two years. CalCOFI is a 48-year-old interdisciplinary investigation of the biology, chemistry, physics, and pa leoecology of the California current system. The field of study is open, but the proposed research should be related to CalCOFI objectives, and may include the analysis of existing data or samples. A Ph.D. is required. Contact Mary Olivarria at Telephone: 619-534-2868 or email: molivarria@ucsd.edu for an information package. Submit curriculum vitae, statement of proposed research, and names and addresses of three references including their individual specialties to: Dr. Michael M. Mullin, Director, Marine Life Research Group, Scripps Institution of Oceanography, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0227 by 31 October 1997. Salary will be commensurate with experience and based on UC salary scales; benefits are included. The University of California is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION IN MOLECULAR PHYSIOLOGY OF CALCIUM SIGNALLING

A Postdoctoral position is available immediately to study regulatory mechanisms of calcium channels involved in capacitative calcium entry using patch clamp, calcium imaging, and recombinant DNA techniques. The applicant should be experienced in electrophysiological, biochemical, or molecular biological techniques and have an interest in calcium signalling and in the structure and regulation of membrane proteins. Applicants should send their curriculum vitae, copies of relevant publications, and names of three references to:

Dr. H. Criss Hartzell Department of Anatomy and Cell Biology Emory University School of Medicine Atlanta, GA 30322. E-mail: criss@anatomy.emory.edu Telephone: 404-727-0444

Emory University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITIONS

Postdoctoral Fellowship positions are available in the Molecular Cardiology program at Columbia University College of Physicians and Surgeons. Applicants should have extensive experience in molecular and cellular biology; prior experience in cardiovascular systems is not required. Send curriculum vitae, reprints of publications, and three letters of recommendation to: Dr. Andrew R. Marks, Director of Molecular Cardiology, Columbia University, P&S 9-401, 630 West 168th Street, New York, NY 10032. Columbia University is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION is available to develop and study fimbrial vaccines for carrying foreign epitopes. Experience with bacteriological and molecular biological techniques is required. Knowledge of tissue culture methodology is desirable. Send curriculum vitae, description of previous experience, and two letters of reference to: Dr. Dieter M. Schifferli, University of Pennsylvania, Department of Pathobiology, 3800 Spruce Street, Philadelphia, PA 19104-6049. FAX: 215-898-7887. An Equal Opportunity, Affirmative Action Employer.

POSTDOCTORAL POSITIONS available in the Department of Pharmacology, University of North Texas Health Science Center, Ft. Worth. Ph.D. required in behavioral or molecular pharmacology with good communication skills. Limited teaching responsibilities are included. Salary range from \$22,000 to \$25,000. Applicants should send curriculum vitae and three letters of recommendation to: Dr. Harbans Lal, Department of Pharmacology, UNTHSC, 3500 Camp Bowie Boulevard, Ft. Worth, TX 76107. An Equal Employment Opportunity/Affinative Action Institution.

POSTDOCTORAL POSITION available to study mitochondrial calcium regulation in living cells (J. Physiol. 497.2:299–308, 1996). Send résumé and names of three references to: Professor Shey-Shing Sheu, Department of Pharmacology and Physiology, Box 711, University of Rochester Medical Center, 601 Elmwood Avenue, Rochester, NY 14642. FAX: 716-244-9283; e-mail: sheus@pharmacol.rochester.edu. University of Rochester is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

The Department of Medicine (Human Genetics Unit) at the University of Vermont College of Medicine invites applications for three **POSTDOCTORAL POSI-TIONS.** Successful candidates will be expected to complement interests in the isolation of disease-related genes, functional determination of their importance, and translating findings from the genetic level to the clinic. Current projects include positional cloning of nuclear genes which interact with mitochondria in carcinogenesis models, determination of organelle relationships with apoptosis genes in human cancer; and in vivo toxicology assessment of novel anti-neoplastic agents which modify gene expression. Experience in molecular biology/genetics, cell cul-ture, and/or animal models preferred. Subsequent faculty appointment possible. Interested candidates please send curriculum vitae, names and addresses of three references, and cover letter to: Dr. Bertrand C. Liang, Director, Human Genetics, Fletcher Allen Health Car, (FH311), 111 Colchester Avenue, Burlington, VT 05401. UVM is an Affirmative Action/Equal Opportunity Employer. Applications from women and people from diverse racial, ethnic, and cultural backgrounds are encouraged. Applications accepted until November 28, 1997

UNIVERSITY OF MINNESOTA CANCER CENTER ORGANIC OR ANALYTICAL CHEMIST POSTDOCTORAL ASSOCIATE

An outstanding opportunity to participate in a program exploring individual susceptibility to carcinogens by developing and applying methods for analysis of carcinogen metabolites in human urine using gas chromatographymass spectrometry and related techniques. An applicant must have a Ph.D. in organic or analytical chemistry by the beginning date of the appointment. Salary will be dependent upon qualifications.

A complete application will consist of a curriculum vitae and the names and addresses of three references to: Stephen S. Hecht, Ph.D. ATTN: Cindy Prange, University of Minnesota Cancer Center, Box 806 Mayo, 420 Delaware Street S.E., Minneapolis, MN 55455. Applications must be postmarked by September 12, 1997. The University of Minnesota is an Equal Opportunity Educator and Employer.

POSTDOCTORAL POSITION LIMNOLOGY/AQUATIC ECOLOGY

The Sustainable Forest Management Network of Centres of Excellence has a Postdoctoral position available to study effects of natural (fire) and anthropogenic (harvesting) disturbances on lake ecosystems in northern Alberta's boreal forest. Research will also include quantifying within-lake and landscape-level factors contributing to natural variability in physicochemical and biotic characteristics of lakes. Applicants should have a strong background in limnology/aquatic ecology; experience with analyzing large data sets and quantifying watershed characteristics (from maps, air photos, and/or GIS) is desirable. Send letter of application, curriculum vitae, and two to three reference letters to: Dr. Garry Scrimgeour, Aquatic Program Administrator, SFM-NCE, G-208 Biological Sciences Building, University of Alberta, Edmonton, Alberta, Canada T6G 2E9. Telephone: 403-492-6304; FAX: 403-492-8160; e-mail: g.scrimgeour@ualberta.ca.

POSTDOCTORAL POSITIONS. Two positions, one in cellular immunology and one in chemistry, are available immediately. The studies involve structurebased drug design of CD4 antagonists and the role of CD4 in the proliferation of helper T cells and autoimmunity. Qualified candidates should possess a Ph.D. and have a strong background in either T cell proliferation assays or synthetic organic chemistry. Please send curriculum vitae and the names of three references to: **Bradford A. Jameson, Center for NeuroVirology, Mail Stop 406, Allegheny University for the Health Sciences, Broad and Vine Streets, Philadelphia, PA 19102.**

POSTDOCTORAL POSITION(S) available immediately to study DNA topoisomerase II transcriptional regulation by Myb family members and modulation of its catalytic activity by protein-protein interactions. Experience in molecular biology is essential and yeast genetics experience is desirable. Send curriculum vitae (with two key publications) and names of three references by September 15, 1997, to: David J. Kroll, Ph.D., School of Pharmacy, University of Colorado Health Sciences Center, 4200 East 9th Avenue, Denver, CO 80262-0238. The University of Colorado Health Sciences Center is committed to Equal Opportunity and Affirmative Action.

POSITIONS OPEN

POSTDOCTORAL POSITIONS AT UCLA

Postdoctoral positions funded by an institutional NIH grant are available in the Laboratory of Signal Transduction and Growth Regulation recently established by **Dr**. **Enrique Rozengurt** in the Department of Medicine, UCLA. The central aim of this laboratory is to identify and characterize signal transduction pathways that regulate the proliferation of mammalian cells (e.g., *JBC* 271: 27895, *JBC* 271:7829, 1996; *EMBO J.* 15:6220, 1996; *JBC* 272:2509, 1997). Interested candidates with a strong background in cellular and molecular biology should send a curriculum vitae, an introductory letter containing a brief description of research experience, and contact information for three references to:

Anne Murphy Division Administrator UCLA Department of Medicine 10945 Le Conte Avenue, Suite 2114 Box 956949 Los Angeles, CA 90095-6949

Applications will be reviewed until the positions are filled. UCLA is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION

The Laboratory of Clinical Microbiology/Immunology is seeking applicants for a Postdoctoral position for two years. U.S. Ph.D. and/or M.D. degree required. Applicant must have molecular biology experience preferably in eukarotyic cells. Microbiology and immunology knowledge also important. Position is for work on bacterial/mammalian cross reactive antigens at a molecular level including work on bacterial pathogenic factors. Curriculum vitae and bibliography plus two letters of recommendation requested. Address these letters to: **The Rockefeller University, Box 125, 1230 York Avenue, New York, NY 10021**. Affirmative Action/Equal Opportunity Employer.

Research interest in our laboratory is focused on molecular developmental biology of the cardiovascular system. A **POSTDOCTORATE POSITION** is open to study smooth muscle gene regulation during mouse embryogenesis. An independent, highly motivated individual with extensive experience in molecular biology is desired. Please submit a curriculum vitae and three references (names, addresses, and telephone numbers) to: **Dr. Li Li**, **421 East Canfield**, **#1107**, **Wayne State University**, **Detroit**, **MI 48201**. FAX: **313-577-8615**.

Wayne State University is an Equal Opportunity/Affirmative Action Employer. All buildings, structures, and vehicles at WSU are smoke-free. Wayne State University—People working together to provide quality service.

POSTDOCTORAL POSITION available immediately to discover genes in an mRNA decay pathway essential for expression of cytokines and interferons. Ph.D., publications, and expertise in cell biology/biochemistry are required. An Institutional Fellowship with a very competitive salary may be awarded to the most promising applicant. Send curriculum vitae and three letters of reference to: Robert H. Silverman, Ph.D., The Lerner Research Institute, Cleveland Clinic Foundation, Department of Cancer Biology, NN10, 9500 Euclid Avenue, Cleveland, OH 44195; FAX: 216-445-6269; e-mail: silverr@ccsmtp.ccf.org.

POSTDOCTORAL FELLOWSHIP, Boston University Medical Center, Cellular and molecular biology of connective tissue and autoimmunity: regulation of matrix gene transcription, differential display, integrin signaling, apoptosis and Fas-mediated signaling, immunology of murine lupus, and amyloidosis. Ph.D. or M.D. with background in molecular or cell biology, biochemistry, immunology. U.S. citizens or permanent residents only. Send curriculum vitae and three references to: Joseph H. Korn, M.D., Arthritis Center, K-5, BUSM, 80 East Concord Street, Boston, MA 02118. E-mail: jkorn@med-med1.bu.edu; Telephone: 617-638-4486.

POSTDOCTORAL POSITION DEPARTMENT OF IMMUNOLOGY, THE SCRIPPS RESEARCH INSTITUTE

Postdoctoral position available for candidate with background in protein chemistry to study inflammatory/ shock factors. Requires a Ph.D. with zero to three years of experience in protein isolation and characterization. Please submit curriculum vitae and names of three references to: Dr. Tony E. Hugli, Department of Immunology IMM18, 10550 North Torrey Pines Road, La Jolla, CA 92037.

POSTDOCTORAL POSITION

We are seeking a research associate to study signal transduction mechanisms in lymphocyte development, activation, and homeostasis using model transgenic animal systems (*Immunity*, 5:563, 1996; *JEM*, 185:1897, 1997). Minimum requirements include Ph.D. and/or M.D. degree(s) and significant research experience in molecular and cellular immunology.

Please send your résumé with three letters of recommendation to:

Dean W. Ballard, Ph.D., c/o Julie Morris Vanderbilt University Medical Center 802 Light Hall Nashville, TN 37232-0295

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POSTDOCTORAL FELLOW HIV-RELATED NEURODEGENERATION

Division of Neuropathology at the University of Pittsburgh School of Medicine offers a Postdoctoral Fellowship for two years to study the role of neurotropic factors and chemokines in neurodegenerative diseases. The candidate should be a neuroscientist with experience in molecular immunology/virology. Strong background in tissue culture with human central nervous system or immune cells preferred. *Candidates must meet U.S. residency criteria for NIH funding*. Please send curriculum vitae and names of three references to: Dr. Cristian Achim, Division of Neuropathology, A515 Presbyterian-University Hospital, University of Pittsburgh Medical Center, 200 Lothrop Street, Pittsburgh, PA 15213. E-mail: achim@np.awing.upmc.edu.

RESEARCH ASSOCIATE/POSTDOCTORAL FELLOW POSITION in neurobiology available immediately. Federally funded position to isolate, characterize, and clone ion channels in human glia and glioma cells. Multidisciplinary approach involving biochemical, molecular, and physiological approaches. Experience with molecular biologic techniques essential. Send application with curriculum vitae and the names of three referees to: H. Sontheimer, Ph.D., Department of Neurobiology, The University of Alabama at Birmingham, 1719 6th Avenue South, Birmingham, AL 35294. Telephone: 205-975-5805; FAX: 205-975-5518; e-mail: hws@nrc.uab.edu. UAB is an Affirmative Attion/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to study GRP/bombesin receptor desensitization and trafficking at the molecular level. This work focuses on the ability of the GRP receptor to behave as an oncogene in selected cancers. Investigations will include work in confocal and digital microscopy, site-directed mutagenesis, heptaspanning receptor pharmacology, and the creation of transgenic and knockout animals. Applicants should have a Ph.D., M.D., or equivalent as well as experience in molecular biology. Please send curriculum vitate and three references to: Dr. Richard Benya, Department of Medicine, University of Illinois at Chicago, 840 South Wood Street (M/C 787), Chicago, IL 60612. E-mail: rybenya@uic.edu.

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Hands-on laboratory and theory are used to teach the essentials of protein purification. Each participant will use theoretical knowledge gained in lectures to create useful purification plans that will then be used to isolate and characterize active biomolecules from complex biological sources. Biotechnology Center, Utah State University, Logan, UT, 84322. Telephone: 801-797-3504; FAX: 801-797-2766.

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Cornell University's Department of Education offers a one year Master of Arts in Teaching program for individuals with extensive backgrounds in science who lack coursework in education and student teaching to be eligible for teaching certification. For details, contact: Telephone: 607-255-9255; e-mail: mss13@cornell.edu.

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SYMPOSIUMS

"FUTURE NEEDS AND DEVELOP-MENTS IN ANTISENSE TECHNOLOGY" WORKSHOP to assess the application of antisense approach in cardiovascular, lung, and blood research. Sponsored by NHLBI. September 25 to 26, 1997. Bethesda, Maryland. Cochairs: Alexander Rich and Kenneth Chien. Confirmed speakers: S. Agrawal, S. Crooke, V. Dzau, E. Edelman, M. Flanagan, G. Gibbons, M. Morris, M. I. Phillips, M. Post, R. Rosenberg, J. Rossi, C. Stein, N. Usman, E. Wickstrom, P. Zameenik. For information contact: Michael C. Lin, Telephone: 301-435-0560; FAX: 301-480-2849; e-mail: michael_lin@nih.gov.

THERAPEUTIC PATHWAYS OF INDUCED APOPTOSIS

Méridien Montparnasse Hotel, Paris France; October 29-30, 1997. An international symposium organized by Consultants Internationaux sur le Médicament. Chairpersons: N. McCarthy, Ph.D.; J. Cahn, M.D.-Ph.D.; H. Tapiero, Ph.D.; J. A. Hickman, Dsc.; C. Charriaut-Marlangue, M.D.; I. M. C. MacLennan, Ph.D.; F. Lunel-Fabiani, M.D.-Ph.D.; L. Robert, M.D.; G. Feldmann, M.D.; E. White, M.D. Internet Summary: http://www.impulsor.fr/apoptose. For program and registration: Telephone: 33-01-46-92-01-53; FAX: 33-01-46-92-01-50.

GLOBAL CAREER OPPORTUNITIES

POSTDOCTORAL POSITIONS. Genexpress/ EURO-IMAGE. The Genexpress team at CNRS in Villé-juif is coordinating the EURO-IMAGE Consortium with five European genome laboratories and two resource centers, with the goal of extending the Integrated Molecular Analysis of human gene transcripts (Auffray et al., *CRAS*; Houlgatte et al., *GR*; Piétu et al., *GR*). We are seeking motivated, talented individuals with experience in molecular genetics and data analysis to participate in this program sponsored by the European Union under BIOMED-2. Priority will be given to candidates with advanced skills in at least one of the following areas: construction and analysis of full-length cDNA libraries, high resolution gene mapping in human and model organisms, quantitative hybridization with high density cDNA arrays, bioinformatics for data analysis, and IMAGE database integration using Unix platforms. The positions are available immediately for a period of two years. Send curriculum vitae and two letters of recommendation to: Dr. Charles Auffray, Genexpress, CNRS UPR 420, BP8, 94801, Villejuif cedex, France. FAX: 33-1-49-58-35-09; e-mail: obrasier@infobiogen.fr

The Swiss Federal Institute of Technology in Zurich (ETHZ) invites applications for a

CHAIR IN ORGANIC CHEMISTRY

We are seeking an outstanding scientist with an established record in Organic Synthesis, preferably related to problems of biological origin or to material sciences and the willingness for collaboration within and outside ETHZ. Support is provided through excellent facilities and a very active research environment.

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Applicants should submit a detailed résumé and a list of publications to: President of ETH Zurich, Professor Dr. J. Nüesch, ETH Zentrum, CH-8092 Zurich, no later than September 30, 1997. The ETHZ specifically encourages female candidates to apply with a view towards increasing the proportion of female professors.

GLOBAL CAREER OPPORTUNITIES





GROUP LEADER VOLKSWAGEN-FOUNDATION MOLECULAR AND CELLULAR BIOLOGY OF NEURONAL STEM AND PRECURSOR CELLS

The Department of Neurology, Neurosurgery and Otolaryngology are seeking a scientist to lead an interdepartmental neuroscience group for five years. The group will consist of postdoctoral, technician, and graduate positions with independent funding by the Volkswagen-Foundation.

At present the University of Regensburg is developing a strong neuroscience program with focus on neuronal stem cells, and the Volkswagen group will complement existing groups working on neurogenesis in the adult brain.

The successful candidate should have a M.D. or Ph.D. degree and substantial postdoctoral research experience. Preference will be given to candidates with considerable background in molecular and cell biology, preferably in the fields of molecular neurobiology, developmental biology (stem cells), intracellular signaling, and/or cell cycle.

Applicants should send a curriculum vitae, a description of past research accomplishments including relevant reprints to: Ulrich Bogdahn, M.D., Department of Neurology, Universitaetsstr. 84, University of Regensburg, D-93053 Regensburg, Germany. Applicants should also provide names, telephone numbers, and e-mail addresses of three references. For further enquiries contact: Jürgen Winkler, M.D., Telephone: +49-941-944-8997; FAX: +49-941-944-8998; email: juergen.winkler@klinik.uni-regensburg.de. Application deadline: October, 31, 1997.



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Radiation Hybrid Mapping



Radiation hybrid mapping based on somatic cells was proposed as a general method for constructing whole genome maps in 1990¹. This method is based on panels of radiation fragmented genomic DNA, with each cell line containing a random fraction of the complete genome. Six such panels are offered by Research Genetics. Each of the panels contains DNA which has been fragmented by different levels of radiation and therefore contains different average fragment lengths. Panels with longer average fragment lengths require fewer markers to build a map but the resolution of the resulting map will not be as great as one constructed from a panel containing

fragments with a smaller average length. Mapping is accomplished by determining the presence or absence of an unmapped sequence in each member of a panel and comparing this information with that of previously mapped sequences.

Maps have been developed for two of the three human panels offered by Research Genetics. The map for the GENEBRIDGE4 panel (http://www-genome.wi.mit.edu) contains over 20,000 loci and offers the greatest chance of success in mapping a sequence. Developed at Cambridge University in the Goodfellow lab, this panel has an average fragment length of about 10 million base pairs.

The Stanford map for the G3 panels (http://shgc-www.stanford.edu) contains over 6,000 framework loci and has a 75% chance of successfully mapping an unknown sequence and a 90% chance of success if the chromosome is known. Developed at the Stanford Human Genome Center in the Cox and Myers labs this panel has an average fragment length of about 5 million base pairs.

The TNG panel, also developed at the Stanford Human Genome Center, has the shortest fragments with an average length of 800 thousand base pairs. No comprehensive map is yet available for this panel but it is very useful for high resolution mapping of loci in a specific region of interest.

In addition, three other RH panels are available: mouse, baboon, and rat. None of these panels currently has a framework map to support it for chromosome localization of unknown markers.

1. Cox, D.R., M. Burmeister, E.R. Price, S. Kim, R.M. Myers (1990) Science 250 (4978) 245-250.

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