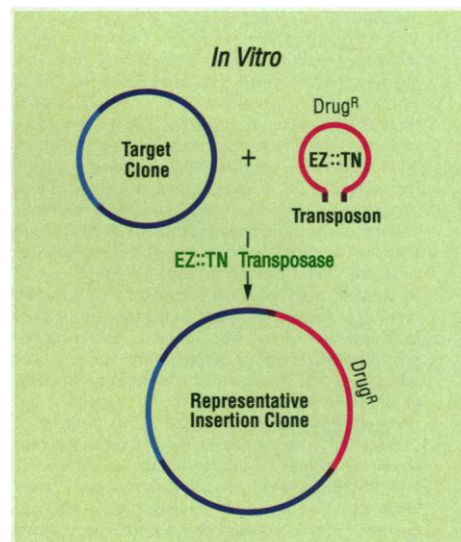
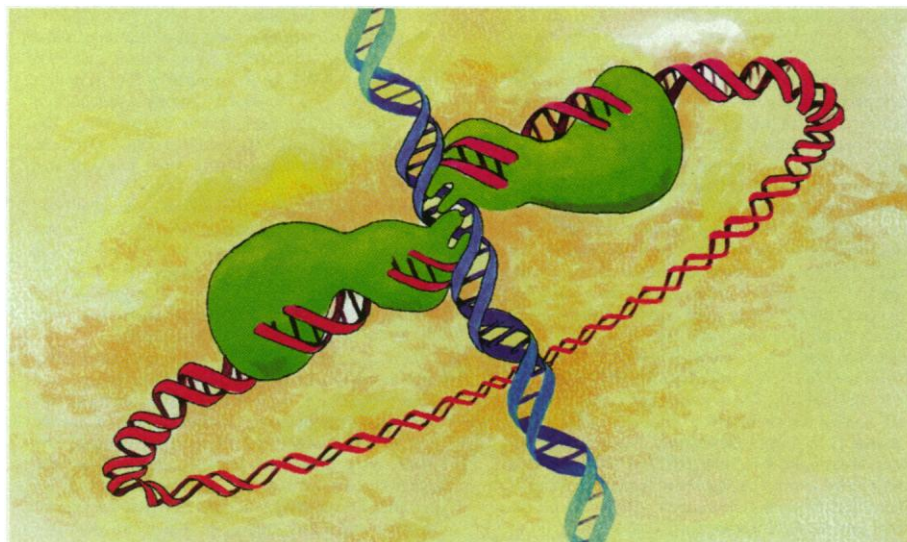


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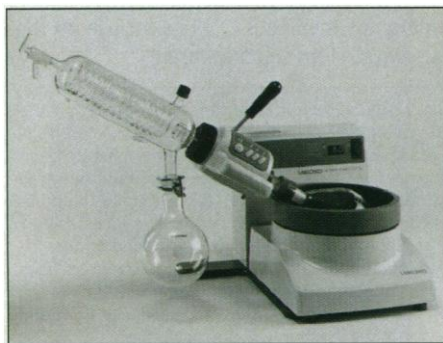
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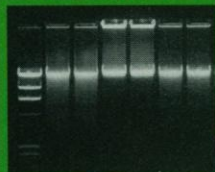
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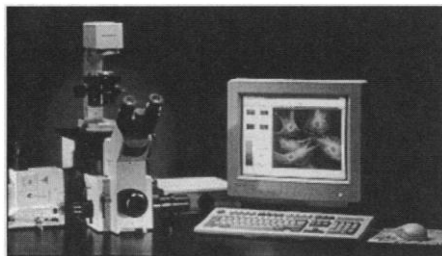
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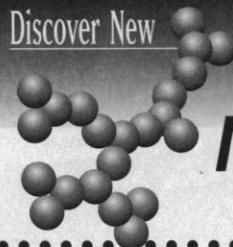
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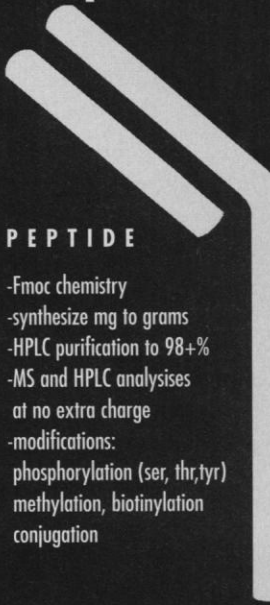
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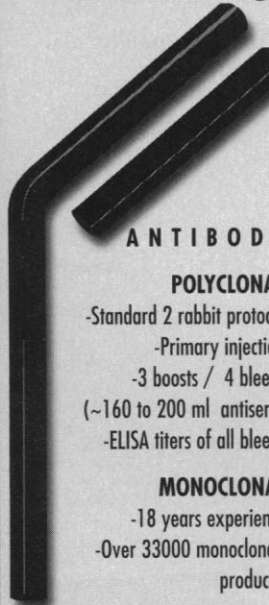
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Request for Proposals

High-throughput Screening and Combinatorial Chemistry Approaches for Cystic Fibrosis Drug Discovery

Application Receipt Date: Open

Developments in the understanding of the cystic fibrosis (CF) basic defect and the role of the CF gene product, CFTR, have enabled scientists to develop strategies for new therapies. The Cystic Fibrosis Foundation (CFF) is soliciting proposals to utilize the growing body of knowledge about CF to develop systems that rapidly discover chemical compounds which correct the function of CF cells. This will be achieved by using the technologies of high-throughput screening (HTS) and combinatorial chemistry (CC).

The CFF will consider proposals for review that address the following issues, but are not limited to:

- developing miniaturization technologies, indicator dyes, marker proteins, cell systems, and related technologies to facilitate the development of HTS technologies related to CF drug development;
- furnishing potential therapeutic agents to evaluate as potential lead compounds for CF drug development;
- creating HTS facilities that serve as resources for evaluating prospective chemical agents resulting from combinatorial chemistry or other entities for evaluation and;
- developing chemical derivatives of existing lead compounds for consideration as candidate drugs.

The application of HTS and CC to develop new anti-*Pseudomonas aeruginosa* drugs will be considered.

Review and Award: The maximum amount awarded will be \$1.5 million over two years. Each application must contain "milestone achievement objectives" and the appropriate timetable for completion of each. Continued funding for the project will be, in part, based upon milestone attainment.

Submission: An original, plus 20 copies, must be sent to the CFF, Attn: Office of Grants Management,

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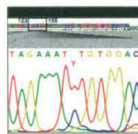
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FOUR NEW FACULTY POSITIONS IN MATERIALS RESEARCH University of Minnesota Institute of Technology

The University of Minnesota has created an Initiative on Materials Research. As part of this initiative, five new positions with an interdisciplinary emphasis are to be filled over the next two years. Four are open to candidates with interests in materials synthesis, properties, characterization, and applications. The intent of the positions is to promote strength and collaborations across the Institute of Technology. Areas of particular interest are magneto-electronic and magnetic materials, materials for MEMS, organic semiconductors, and electronics and optoelectronics, but the search will consider outstanding candidates in other areas. Departments within The Institute of Technology include Aerospace Engineering and Mechanics, Chemical Engineering and Materials Science, Chemistry, Civil Engineering, Electrical and Computer Engineering, Geology and Geophysics, Mathematics, Mechanical Engineering, and Physics and Astronomy. The candidate's home department will depend on his/her background and research interests. Applicants must possess a strong research record, a demonstrated ability to establish a highly visible research program, and a commitment to teaching and mentoring at the graduate and undergraduate levels. A Ph.D. by the time of appointment in a relevant discipline is required. Preference will be given to junior-level appointees, but exceptional candidates will be considered for more senior appointments.

The Initiative on Materials Research is part of a broader development program of the University of Minnesota. The recently awarded Materials Research Science and Engineering Center (MRSEC) grant from the National Science Foundation (NSF) together with a number of broader University initiatives will open several new possibilities for collaborative and interdisciplinary research. A Digital Technology Center is being formed with substantial state resources for infrastructure and new faculty. A third area of development involves molecular and cellular biology.

Applicants should submit a curriculum vitae, a summary of research accomplishments and plans, a preference of home department, and the names of at least three references to: Professor Chris J. Palmström, Chair of the Materials Research Search Committee, 151 Amundson Hall, 421 Washington Avenue S.E., Minneapolis, MN 55455. For more information, see website: www.it.umn.edu; e-mail: palm001@tc.umn.edu.

Review of applications will begin January 1, 1999. The searches will remain open until the positions are filled.

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MOLECULAR BIODIVERSITY OF PLANTS

The Boyce Thompson Institute for Plant Research at Cornell University invites applications for a **TENURE-TRACK POSITION** for a junior-level scientist who uses genomics or proteomics approaches to study fundamental mechanisms underlying plant biodiversity at the organismal or population levels. Research areas of interest include, but are not limited to, adaptation to biotic or abiotic stresses or environmental factors; genetics and biochemistry of plant-insect or plant-pathogen interactions; molecular analysis of ecological systems.

The successful candidate will establish an independent, extramurally funded research program and collaborate with colleagues at the Boyce Thompson Institute and elsewhere on the Cornell University campus. This position is synergistic with the Cornell Genomics Initiative, which is a comprehensive effort to recruit 20 new genomics faculty to the Cornell campus and significantly update facilities and infrastructure for genomics and proteomics research. Excellent start-up funds and benefits are available. Review of applications will begin April 5, 1999, and continue until the position is filled.

Applicants should send a curriculum vitae, statement of research interests, and names of at least three references to: Molecular Biodiversity Search Committee, Boyce Thompson Institute, Ithaca, NY 14853. Questions regarding the position may be directed to: Dr. David Stern, Telephone: 607-254-1306; e-mail: ds28@cornell.edu or Dr. Robert Kohut, Telephone: 607-254-1233; e-mail: rjk9@cornell.edu.

Boyce Thompson Institute is a private, independent, nonprofit research institute formally affiliated with Cornell University. The Institute is an Affirmative Action/Equal Opportunity Employer and is committed to increasing the diversity of its faculty and staff. Applications from women and minorities are encouraged.

POSITIONS OPEN

Four **TENURE-TRACK POSITIONS** for fall 1999. Three in biology, one in (bio)chemistry, Doctorate required. Seeking candidates with a strong commitment to undergraduate teaching. Besides the specific course offerings, all are expected to teach general education courses and supervise undergraduate research projects. (1) Comparative vertebrate physiology: Courses include sophomore-level vertebrate physiology lecture and laboratory incorporating modern computer technology, introductory biology, and advanced course in physiology. (2) Mammalian physiology: Courses include advanced human physiology course for upper-level physical therapy majors, introductory biology, sophomore-level vertebrate physiology with laboratory, and an upper-level course in area of specialization. (3) Animal molecular biology: Seeking candidates who study animal systems using molecular techniques. Courses include sophomore-level general genetics, introductory biology, and an advanced course in area of specialty. (4) (Bio)chemistry: Courses include biochemistry and biochemistry laboratory methods. Candidate will also help develop new biochemistry/molecular biology curriculum. Salary range \$35,846 to \$41,224, may be higher depending on qualifications, experience, and increases in the appropriately established compensation plan. Fuller descriptions of the major on Stockton's World Wide Web pages: Biology, website: <http://www.stockton.edu/~harsigt/>, Biochemistry, website: <http://www.stockton.edu/~biochem/BAMB.html> and Chemistry, website: <http://www.stockton.edu/~chemprog/program/index.htm>. Screening begins April 1, 1999. Send application letter indicating position applied for, statement of teaching goals/philosophy, résumé, three letters of recommendation, and evidence of completion of degree to: Dr. Lynn Stiles, Dean of Natural Sciences and Mathematics, AA29, Richard Stockton College of New Jersey, P.O. Box 195, Pomona, NJ 08240. Stockton is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply. R903736

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FACULTY POSITION VISUAL SCIENCE/ VASCULAR DISEASE RESEARCH

The Department of Ophthalmology and Visual Sciences at the University of Wisconsin-Madison has a tenure-track faculty opening at the level of **ASSISTANT PROFESSOR**. Candidates must have a Ph.D. or M.D.-Ph.D. degree with postdoctoral research experience, and the ability to develop an independent, extramurally funded research program in the areas of diabetic-related eye diseases, age-related macular degeneration, or angiogenesis. Applicants using innovative molecular, genetic, and/or biochemical approaches are encouraged to apply.

Successful candidates need not have previous experience in the visual system, but must demonstrate an interest in working in this area and in fostering collaborative interaction between research and clinical faculty. Submit a curriculum vitae, a description of current research and plans for the future, and the names of three references to: Arthur Polans, Ph.D., Vice-Chair, Research, Ophthalmology and Visual Sciences, Room K6/466 CSC, 600 Highland Avenue, Madison, WI 53792-4673. March 31, 1999, application deadline.

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Combinatorial Chemistry

combinatorial chemists on the fast track

The techniques of combinatorial chemistry are revolutionizing drug discovery. So pharmaceutical companies are recruiting organic chemists with a feel for combinatorial techniques. By Peter Gwynne

By reacting a set of starting chemicals in every possible combination, combinatorial chemistry gives life scientists the ability to create molecules in huge numbers, and to test them for sought-after properties. Those abilities have attracted the attention of pharmaceutical companies. In recent years, virtually every large drug company has set up a combinatorial chemistry group.

The groups have revolutionized drug search programs. Six or seven years ago, a single chemist could make perhaps five compounds per week. Now, he or she can create up to 100 new compounds in the same period of time. The work helps to find leads for potential drugs, and significantly speeds up optimization of those leads.

Combinatorial chemistry dates back to 1963, when Rockefeller University biochemist R. Bruce Merrifield developed a solid-phase method of synthesizing peptides. However, the field had little impact until the mid-1980s. H. Mario Geysen, then at Melbourne University in Australia and now at Glaxo Wellcome Company, adapted the technique to synthesize arrays of peptides on pin-shaped solid supports. At about the same time, Richard Houghten of San Diego's Torrey Pines Institute for Molecular Studies developed a means of creating libraries of several thousand compounds by solid-phase parallel synthesis, in tiny "tea bags."

Those events sparked drug companies' interest in combinatorial chemistry. They saw it as a rapid way to create libraries of molecules with drug-like characteristics. While the field has not fully realized the high hopes that many corporate managements originally held for it, it has established itself as a key contributor to the process of drug discovery. Developments over the past couple of years in the five key areas of combinatorial chemistry — pre-synthesis, synthesis, purification and work-up, analysis, and informatics — have served to increase the power of the technology.

So far, the production of trained combinatorial chemists has not kept up with the technical advances. Very few academic chemistry departments now specialize in the technology. That does not worry pharmaceutical companies. In recruiting for their combinatorial chemistry groups, they seek individuals who have demonstrated skills in synthetic organic chemistry.

ABBOTT PARK, ILLINOIS: "We're looking to expand the technology," says Thomas Sowin, project leader for combinatorial chemistry at Abbott Laboratories. "We may add one or two people this year. Our goal is to expand the technology more routinely into outside areas for medicinal chemists."

Abbott decided to expand its small combinatorial chemistry operation four years ago, after analyzing the activities of its pharmaceutical competitors and biotechnology firms. The company selected Sowin, who had previously specialized in process chemistry, to lead the group. "I always think of combinatorial chemistry as a hybrid between medicinal chemistry and process chemistry," he asserts.

The group has notched up several successes. "We've developed some new tagging techniques for combinatorial mix-and-split libraries that permit us to enumerate the number of hits on single beads," explains Sowin. "We have worked with our engineers to come up with an automated liquid-liquid extraction work station. We have one compound that has entered clinical trials in the cancer area that was directly influenced by combinatorial chemistry. It was a serendipitous discovery in which we found a new hydrophobic pocket unknown to medicinal chemists. In addition, we have optimized several other compounds to subnanomolar potencies."

Abbott Laboratories • Bayer AG

A former science editor of Newsweek, Peter Gwynne writes about science and technology from his base on Cape Cod, USA.

Continued >

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When he recruits new members for his group, Sowin recognizes that combinatorial chemists are rare commodities indeed. "So what I look for is, first of all, good skill in synthetic organic chemistry," he says. "Beyond that, recruits have to have an interest in doing combinatorial chemistry, and maybe an aptitude for using automation. We look for people who have established records in bringing projects to successful completion, and have demonstrated creative problem-solving skills in organic synthesis."

Abbott Labs looks for capabilities beyond the laboratory. "Today's chemists must have strong communication skills, both oral and written," says Rick Harris, staffing manager for Abbott Laboratories' pharmaceutical products division. "Because of the number of cross-functional teams that exist in our organization, a scientist must understand the complete business objectives,

from the discovery of a compound to the marketing and sale of the final product."

Finding such scientists isn't easy. "With the U.S. unemployment rate at 4.3 percent, the acquisition of scientific talent remains a challenge," says Harris. Nevertheless, he adds, "Abbott Laboratories remains a company of choice among top scientists, primarily due to the nature of our business, our financial performance, our stability, and, most important, the people we employ."

Sowin generally recruits individuals fresh from completing Ph.D.'s or postdoctoral fellowships. However, the group encourages applications from individuals with some industry experience. Those scientists "must have strong supervisory and managerial skills, and be able to work with and motivate employees with very diverse backgrounds and experiences," says Harris.

Europeans Keep Pace with Their American Counterparts

Mirroring U.S. drug corporations, European pharmaceutical companies are rushing to apply combinatorial chemistry to their drug discovery programs. Such companies see two areas of specific value in the field: synthesizing libraries of possible interest, and developing potential hits among the new compounds created by the technology.

Just as in the United States, managers see no ready supply of combinatorial chemists coming out of academe. So they assume that combinatorial chemists are made, not born, and aim to recruit synthetic organic chemists — at least those with the ability, after a little training, to adapt their chemical skills to the methods of combinatorial chemistry. One increasing area of interest for employers is the ability to handle data and electronic equipment.

The field knows no bounds of nationality in Europe. Exposure to a foreign culture during academic training is often a positive advantage. Native English speakers should find little difficulty communicating, because most scientists in large European pharmaceutical companies speak excellent English.

LEVERKUSEN, GERMANY: "We are not really looking for combinatorial chemists," says Jörg Stetter, head of the life sciences department in central research at Bayer AG. "Normally, we prefer to hire synthetic organic chemists with broad experience in different types of synthesis, and then educate them here in the company to become combinatorial chemists. Normally, we don't want to have people who have specialized only in combinatorial chemistry, though we do look at chemists who have experienced it during their Ph.D's."

Bayer has set up groups to perform combinatorial chemistry in all its laboratories worldwide. Its overall efforts in the field have

been wide-ranging and successful. "We are developing methodologies and improving the speed and efficiency of creating libraries of 100 or more compounds," explains Stetter. "We want to get as much interesting chemistry in the solid phase as possible. In the beginning, there was only the peptide bond. Now, we have internally set up more than 50 new reactions in the solid phase. All this could be done only because we had experienced chemists, with knowledge of all types of synthesis."

The company started work on combinatorial chemistry in its central research and pharmaceutical divisions in 1995. Today, the central research division concentrates on methodologies while the business groups use the technology to evaluate hits. Overall, Bayer has 30 to 40 scientists working in the area in Germany.

When recruiting individuals for combinatorial chemistry, Bayer looks for a breadth of experience beyond the laboratory. "We prefer [German] scientists who have lived abroad in a foreign culture," says Stetter. "We benefit from the chemistry that these people learn in their postdoctoral work. We also have a lot of interest in hiring foreign chemists. In our central research department, about ten percent of our chemists come from foreign countries."

The inability to communicate in good German presents little problem. "Our academic people all speak English," continues Stetter. "It's not so easy to talk English with our technicians, but we will give recruits seminars in German." ■

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Postdoctoral Fellow - Intestinal Permeability - Ph.D. in Pharmaceutics with up to 3 years experience in drug transport and physical chemistry/pharmaceutics, familiarity with laboratory techniques such as cell culture, drug transport models, analysis of drugs and metabolites in biological fluids. **Code: PRDB72RM1**

Ph.D./Sr. Research Investigator - Design/conduct pharmacokinetic and metabolism studies of potential drug candidates, identify and quantify drug and metabolite levels in biological samples, and devise in vitro methods to screen compounds for metabolic/pharmacokinetic characteristics. Ph.D. in pharmacokinetics, biochemistry, pharmacology or analytical chemistry, with 2-6 years experience in in vitro and in vivo metabolism and pharmacokinetic experiments, analysis of drugs and metabolites in biological fluids, and analytical methods including HPLC-UV and HPLC-MS. **Code: PRDB72RM2**

Clinical Research Laboratory

Ph.D./Cell Biology - Hamilton, New Jersey. Will develop flow cytometry, fluorescence microscopy and molecular biology tests in support of clinical drug trials. Must supervise diagnostic tests and high-throughput genotyping, as well as validate new pharmacodynamic markers to define the magnitude and time course of drug action. **Code: PRLM72BS**

Human Genetics

Ph.D./Human Genetics - Expertise in human genetics, genotyping technologies and informatics. B.S./M.S. candidates are also welcome to apply for positions within Human Genetics. **Code: PRSM72DW**

Biological Process Sciences

Postdoctoral Fellow - Hopewell, New Jersey. Initiate research projects to develop novel mammalian expression systems through engineering of host cells & improvement of cell culture methods. Ph.D. in cell or molecular biology and experience with recombinant DNA techniques, purification and analysis of proteins. Background in areas of cell cycle, apoptosis and growth factors desired. **Code: PRDM72**

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AWARD

The Ellison Medical Foundation 1999 Senior Scholar Awards

Request for Letters of Intent – Deadline: July 1, 1999

The Ellison Medical Foundation is announcing an opportunity to submit letters of intent for the Senior Scholar Awards for 1999. The Senior Scholar Award program is designed to support established investigators, working at institutions in the U.S., to conduct research in the basic biological and clinical sciences relevant to understanding aging processes and age-related diseases and disabilities. The award is intended to provide significant support to established investigators in order to allow the development of new, creative research programs by investigators who may not currently be conducting aging research or who may wish to develop new research programs in aging. The Foundation particularly wishes to stimulate new research, which has rigorous scientific foundations, but which may not be currently funded adequately, because of its perceived novelty, its **high risk**, or because it is from an area where traditional research interests absorb most funding.

Up to ten Senior Scholars will be selected in 1999. Each award will be made for \$150,000 direct cost per year for up to four years. Letters of intent to submit an application must be received before close of business **July 1, 1999** at the Ellison Medical Foundation address below. The Ellison Medical Foundation has been established by a gift from Mr. Lawrence J. Ellison to support biomedical research on aging.

For further information on the Senior Scholar Program and guidelines on submitting your letter of intent, contact:

Richard L. Sprott, Ph.D.
Executive Director

Phone: 301-657-6248
Email: rsprott@interofc.com

The Ellison Medical Foundation www.ellison-med-fn.org
P.O. Box 34474

West Bethesda, MD 20827

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An Honorary Postdoctoral fellowship program named for Harry Hess has been established to provide opportunities for outstanding geoscientists to work in the field of their choice. Research may be carried out independently or in collaboration with members of the Geosciences Department. Applicants will also be considered for other available postdoctoral positions in the department. Current areas of research include

- Geochemistry
- Biogeochemical Cycles
- Paleontology
- Mineralogy
- Petrology
- Structural Geology
- Geophysics
- Seismology

Candidates should send a letter of application and the supporting materials listed below to the HESS FELLOWS COMMITTEE, c/o Prof. George Philander, Princeton University, Department of Geosciences, 113 Guyot Hall, Princeton, NJ 08544. Applications must be received no later than December 31, 1999.

1. Curriculum Vitae
2. List of publications and preprints
3. Brief statement of research interests and goals
4. Names and addresses of three referees familiar with the candidate's work (the candidate should arrange to have the letters of recommendation sent directly to the address above).

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You will conduct and supervise the design, synthesis, purification, and characterization of novel small molecules directed toward the development of therapeutic agents. You will work closely with colleagues in biology, biochemistry, pharmacology, computational chemistry, structural chemistry, and combinatorial chemistry. Candidates should have a Ph.D. in synthetic organic chemistry and a documented record to support their creativity, problem-solving skills, and research excellence. Responsibilities include supervising and training B.S./M.S. chemists in the laboratory. **Position #980655.**

B.S./M.S. Medicinal Chemists

Individual will assist in the design, and conduct the synthesis, purification, and characterization of novel small molecules directed toward the development of therapeutic agents. You will work closely with colleagues in biology, biochemistry, pharmacology, computational chemistry, structural chemistry, and combinatorial chemistry. Candidates should have a B.S./M.S. in synthetic organic chemistry, preferably with documented research experience. **Position #980222.**

B.S./M.S./Ph.D. Process Research and Development Chemists

Selected candidate will work as part of a team to support the drug discovery process and develop the chemistry required for commercialization of pharmaceutical compounds. Applicants must have a Bachelor's or Master's degree with a strong concentration in organic chemistry or a Ph.D. in synthetic organic chemistry with extensive experience in separation, purification and modern analytical techniques (HPLC, GC, NMR, IR, MS). Excellent communication skills are a must. Ph.D. applicants refer to **Position #980014.** B.S./M.S. applicants refer to **Position #980034.**

Ph.D. Combinatorial Chemist

You will conduct research in the development and application of combinatorial chemistry technology to the drug discovery/development process. The research will employ state-of-the-art methods for high-throughput robotic synthesis and purification, data management, and modern methods of instrumental analysis for the identification and characterization of compounds. Responsibilities include supervising and training B.S./M.S. chemists in the laboratory, as well as training other medicinal chemists in the application of combinatorial chemistry to their research. Candidates should have a Ph.D. in synthetic organic chemistry. Experience in combinatorial methodology is required. **Position #980257.**

B.S./M.S. Combinatorial Chemists

Individual will participate in the design and synthesis of compounds for biological evaluation using combinatorial chemistry techniques to facilitate the drug discovery/development process. The research will employ state-of-the-art methods for high-throughput robotic synthesis and purification, data management, and modern methods of instrumental analysis for the identification and characterization of compounds. You will work in a team environment with medicinal chemists, biologists, and computational chemists. Candidates should have a B.S./M.S. in organic chemistry. Experience in synthetic organic chemistry and/or combinatorial chemistry techniques is preferred. **Position #980258.**

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Cheminformatics Scientist

The Computer-Aided Drug Discovery unit of Pharmacia & Upjohn is seeking two cheminformatics scientists to develop and support a variety of software methods related to combinatorial chemistry and chemical structure/biological database management. Responsibilities of the first position include application of combinatorial chemistry software methods in compound library design and structure-activity analysis, collaboration with medicinal chemists in library design, and end-user training in the application of such methods. The second position is for an ISIS database administrator/programmer responsible for setting up and maintaining ISIS software and databases and for programming ISIS-based custom software solutions. The successful candidates will have a B.S., M.S. or Ph.D. in Chemistry, Computer Science, or related field. Demonstrated experience in software methods development for cheminformatics applications, familiarity with SQL, and programming experience in UNIX or NT environments are essential. In addition, a working knowledge of C++ or Visual Basic, experience in the development of multi-user software systems, and experience with combinatorial chemistry design methods or the ISIS software environment are highly desirable. Please refer to **Position #980348** for the combinatorial cheminformatics opening and **Position #990047** for the ISIS informatics opening.

Ph.D. Analytical Chemists

These positions require a Ph.D. in analytical chemistry with 3+ years of experience in an industrial R&D laboratory. Candidates should possess a proven record of analytical problem-solving abilities and be effective team players. You should be able to design, develop, and validate analytical methods; isolate and identify minor components; generate technical reports and SOPs; and supervise 1-2 associates. Candidates should be familiar with HPLC, capillary GC, and computer data acquisition and LIMS systems. Knowledge of LC/MS, NMR, KF moisture analysis, ion chromatography, compendial methods, cGMP regulations and ICH guidelines is highly desirable. **Position #980042.**

B.S./M.S. Analytical Chemists

These positions require an M.S. or B.S. in chemistry with 0-5 years of experience in an industrial laboratory. Candidates must be able to develop and validate analytical methods, particularly HPLC and capillary GC, for reaction monitoring and quality evaluations of process intermediates. Candidates must be adept at maintaining and troubleshooting modern analytical apparatus. Experience with modern spectroscopic methods and cGMP regulations is highly desirable. **Position #980023.**

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Ligand Biochemist

We seek an experienced professional with a PhD and 2-6 years' postdoctoral experience in protein biochemistry, assay development and characterization of receptor-ligand interactions for our program to identify ligands for orphan receptors. Experience in the pharmaceutical industry, particularly with moving novel receptor-based targets into screening, is highly desirable.

Research Associates

Synthetic Organic Chemists – BS/MS Level

These researchers are responsible for the execution of multi-step synthetic compounds for biological testing, as well as purifying and identifying procedures. Candidates must have knowledge of synthetic organic methodologies and the ability to modify synthetic experimental methods. You will also apply modern analytical methods (LC/MS, NMR, HPLC) to determine structure and purity. Candidates should have a BS and/or MS in chemistry and 2+ years' experience.

Information Technology

Senior Software Engineer – Cheminformatics

Proficient IT professional to provide cheminformatics applications support to groups within the Drug Discovery organization, with a principal focus on database integration, scientific data management, and integration of off-the-shelf cheminformatics software products. You will be the sole DBMS developer in a team of two programmers working to rapidly bring order and coherence to a suite of newly acquired and/or newly specified applications. To qualify, you must have a BS/MS in computer science, computer engineering, or software engineering training, plus experience in chemistry. RDBMS applications programming in Oracle relational database design, C/C++, Perl, UNIX, Shell programming and Web/CGI programming are essential. Java is a plus.

Business

Senior/Licensing Managers

We have several excellent openings for experienced professionals to be responsible for evaluating new technology opportunities in the biotechnology industry and academia, structuring licensing and scientific collaboration relationships with academic or corporate partners, and negotiating deals. Reporting to the Senior Director, you will contribute to efficient communication of licensing priorities/strategies to business and scientific members throughout Millennium. Requires a background in life sciences/chemistry, with at least 2 years' technology evaluation, licensing and business development experience in pharmaceuticals, biotechnology, instrumentation or academia. Advanced scientific or business degree preferred.

Qualified candidates should send resumes in confidence, using one of the following:

Please be sure to include Source Code SC399 on all submissions. If including cover letter, please place/paste after resume.

- For fastest consideration, visit the "Careers" page of our website at www.mlnm.com and apply on-line.
- Via e-mail at millennium@webhire.com. Please reference Source Code on "Subject" line.
- Via toll-free fax at 1-800-370-6925. Please reference Source Code on the fax cover or page 1.
- Via mail: Millennium Pharmaceuticals, Inc., Resume Processing Center, Source Code SC399, PO Box 798, Burlington, MA 01803.
- No agency submissions please.



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**St. Jude Children's
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Emerging Viruses Junior Faculty Position

The Department of Virology and Molecular Biology at St. Jude Children's Research Hospital invites applications for a position at the Assistant Member level.

The successful candidate will demonstrate the ability to develop a program of research excellence that focuses on interspecies transmission and pathogenesis of influenza viruses. We are seeking a candidate who will pursue a multi-disciplinary, national and international approach to their problem and be willing to utilize the extensive resources available at St. Jude Children's Research Hospital. This Department currently has Faculty members working on problems related to influenza and parainfluenza viruses, HIV, EBV, and cell biology.

Applicants should include a curriculum vitae and statement of research interests and goals. Candidates should arrange to have three letters of recommendation forwarded to:

Robert G. Webster, Ph.D.
Chairman, Department of Virology and Molecular Biology
St. Jude Children's Research Hospital
332 North Lauderdale St.
Memphis, TN 38105

www.stjude.org

BioSource International is a leading manufacturer of immunological and molecular reagents for the worldwide medical research marketplace. We currently have the following position available at our Ventura County headquarters.

SENIOR SCIENTIST Protein Purification

We are seeking an organized, detail-oriented individual to lead a group of scientists in the purification and production of recombinant proteins synthesized in either prokaryotic or eukaryotic systems. Requires a PhD and 4+ years experience, with at least 2 years in an industrial setting. (Non-PhD candidates with 5-8 years industrial experience are encouraged to apply.) Excellent communication skills and a proficiency with computer-interfaced purification equipment and standard word/data processing software are also necessary.

BioSource International offers a competitive salary, excellent medical, dental, vision and disability insurance programs, stock option and stock purchase plans, a 401(k) pension plan, and a team-oriented working environment. Qualified candidates only should submit resume to: **BioSource International, Inc., Human Resources Dept., 820 Flynn Road, Camarillo, CA 93012. FAX: (805) 383-0176. Email: hr.dept@biosource.com. EOE.**



Field Museum Vice President

The Field Museum is seeking a person with a strong academic background and outstanding administrative skills for the position of Vice President of Academic Affairs. The Field Museum is a non-profit, public institution with programs of research, collections, and education in the broad areas of evolutionary biology, earth history, and human culture. The Museum has an annual budget of over \$45 million and employs over 550 staff. More than 50 Ph.D. scientists are resident researchers in the four departments of Academic Affairs.

The Vice President will lead the major academic departments of Anthropology, Botany, Geology, and Zoology. Responsibilities of this position include administration of the annual budget for collections and research, and coordination of the maintenance and growth of the collections which comprise over 21 million biological specimens and anthropological objects. The Vice President also works with museum departments of exhibits and education to develop and sustain museum programs.

Candidates are desired who have strong scientific careers, with collection-based research experience and strong funding records. The successful candidate will have a broad view of science, education, collection support, and the current roles of museums in society. Proven administrative success, with good leadership and consensus-building skills are also desirable.

Consideration of applications will begin on April 1, 1999 and will continue until a suitable candidate is found. Please send the following materials: (1) a curriculum vitae; (2) a statement of administrative qualifications; (3) names and addresses of 3 people from whom letters of recommendation may be sought; (4) copies of relevant publications to: **VP Search Committee, Academic Affairs, Field Museum, Roosevelt Road at Lakeshore Drive, Chicago, IL 60605-2496.** The Field Museum is an Equal Opportunity Employer.

THE FIELD MUSEUM

New England Biolabs POSITION AVAILABLE

New England Biolabs, a world leader in the production of restriction endonucleases and other related products for the recombinant DNA field, seeks applicants for:

Postdoctoral Fellow (Opioid Signaling Mechanisms):

The Cell Signaling Laboratory has a position available to study G_i linked receptor signaling mechanisms. Projects involve molecular and biochemical analysis of intracellular signaling pathways and protein kinases mediating μ -opioid receptor signaling to downstream transcription/translation factors. Minimum requirements include a Ph.D. degree in Molecular Biology, Biochemistry, Cell Biology, or a related field with some experience in the molecular biology of signal transduction and gene regulation. Experience with brain histological analysis would also be useful. Experience with basic techniques in molecular biology, protein phosphorylation and biochemistry are recommended. Send a resume and three references to: **Dr. Michael Comb.**

New England Biolabs, Inc.
32 Tozer Road
Beverly, MA 01915
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At Monsanto, we share a common goal — to help people lead longer, healthier lives. We are pioneering the use of life-science technologies to understand how the connections between human health, nutrition and agriculture can be used to develop products to improve the quality of life for everyone, everywhere.

Pharmaceutical Sector

Discovery Oncology

We currently have two positions immediately available for Senior Scientists to join multidisciplinary teams focused on the discovery of therapeutics related to oncology. We seek individuals that are innovative and have strong communications skills. Experience working in a team environment and leading a team of scientists in a discovery effort of novel therapeutics is preferred. Successful candidates will provide expertise with relevant in-vitro and in-vivo models including conceiving, designing and conducting experiments.

We require a Ph.D. with 5 years post-doctoral experience in the areas of tumor biology, tumor immunology, or cytokine biology. Previous leadership experience is highly preferred. Some industrial experience is also preferred.

For consideration please send resume to: **Monsanto Life Sciences, Job Code: SS-WS, Mail Code: BB5B, 700 Chesterfield Parkway North, Chesterfield, MO 63198. Fax: 314/737-6419.**

Foundations Sector

Bioinformatics Applications Support - Mystic, CT

In this position you will support the development and implementation of high-speed, high-throughput information and biology technologies which comprise Monsanto's rapidly growing Genomics initiative. You will be responsible for providing user support for Monsanto's informatics tools including Pollux, Casper and Lifeseg. In addition, you will provide site wide support for single/low usage informatics products.

We require a MS in Molecular Biology or Genetics, and 2 years experience in bioinformatics with a strong biology and computer background, especially in generating useful information from massive output of data generated by sequencing, genetic fingerprinting, mapping positional cloning, and/or transcriptional profiling efforts. An in-depth knowledge of bioinformatics tools, (e.g. GCG) and demonstrated skills in Smalltalk, C++, and PERL are a must. Job Code: LSI-3691.

Bioinformatics Scientist - Mystic, CT

Your primary responsibility will be in the area of DNA polymorphism analysis. You will process and analyze sequence data and molecular marker data, while identifying SNPs, insertion/deletion and calculating PIC and theta values through tools developed in Cereon.

We require a Ph.D. in Molecular Biology or Genetics, and 2 years experience in bioinformatics with a strong biology and computer background, especially in generating useful information from massive output of data generated by sequencing, genetic fingerprinting, mapping positional cloning, and/or transcriptional profiling efforts. An in-depth knowledge of bioinformatics tools, (e.g. GCG) and demonstrated skills in C, C++, Java or PERL are a must. Job Code: LSI-3690.

Bioinformatics Scientist - Mystic, CT

In this position you will use biology and computational skills to extract meaningful data from genomics information to identify leads and targets with biological significance for Monsanto's agricultural and pharmaceutical programs. You will design and use systems for phenotypic data storage in conjunction with crop teams and Arabidopsis research teams. Your research will focus on methods to find associations within expression patterns (tissue level, RNA and protein) and whole plant phenotypes arising from mutant screen and QTL-type studies.

We require a Ph.D. in Molecular Biology or Genetics, and 2 years experience in bioinformatics with a strong biology and computer background, especially in generating useful information from massive output of data generated by sequencing, genetic fingerprinting, mapping positional cloning, and/or transcriptional profiling efforts. An in-depth knowledge of bioinformatics tools, (e.g. GCG) and demonstrated skills in C, C++, Java or PERL are a must. Job Code: LSI-3689.

These positions will be located in Mystic, CT and will support Monsanto's rapidly growing Genomics initiative as part of the link with Dekalb. Other opportunities also available in St. Louis, MO. For consideration please send resume to: **Monsanto Life Sciences, Job Code (insert code from above), Mail Code: E2NB, 800 N. Lindbergh Blvd., St. Louis, MO 63167. Fax: 314/694-2014.**

Agricultural Sector

Plant Molecular Biologists (6 openings)

If you are challenged by working on state-of-the-art equipment in a fast-paced, team environment, you need to be a part of our Seed Quality program. You will play a key role in developing and implementing molecular diagnostics to support Monsanto's quality control programs. While participating in a team environment to develop molecular diagnostics, you will interface with a variety of internal and external companies to provide support for diagnostic

methods. We require a BS in biological sciences with an emphasis on molecular biology. A MS/Ph.D. is a plus. Experience with PCR, Southern blot, library construction, PCR-directed sequence analysis, micro-array technologies, high throughput systems and robotics is preferred. Experience in plant breeding, plant genetics, and working with GLP systems is desired. Job Code: PMB.

Immunologists (5 openings)

Can you meet the challenge of working in a team-based environment to plan, create and participate in an immunoassay screening group to support Monsanto's Seed Quality program? This is your opportunity to start on the ground level in the development of this new program. We require a BS in biological sciences with an emphasis on immunology. A MS/Ph.D. is preferred. Experience with ELISA, lateral flow systems, polyclonal/monoclonal antibody production and purification, multi-analyte detection, high throughput systems and robotics is preferred. Experience in seed production, plant breeding, plant genetics and working with GLP systems is desirable. Job Code: IMM.

For consideration please send resume to: **Monsanto Life Sciences, Job Code: (insert from above), Mail Code: BB5J, 700 Chesterfield Parkway North, St. Louis, MO 63198. Fax: 314/737-6189. Email: karen.r.figueroa@monsanto.com**

Monsanto is a world-leader in the development of genomics technologies for agricultural products with a mission of abundant food and a healthy environment. The rapid growth of plant and microbial genomics databases as well as functional genomics characterization of whole genomes is rapidly making it possible to generate innovative, next generation product opportunities. Monsanto has forged a network of genomics collaborations with leading genomics biotechnology companies, established Cereon as a premier plant functional genomics company and has developed other internal sequencing and functional genomics efforts providing a challenging and empowered environment for scientists striving for unprecedented personal and team achievements in the field of agriculture. Scientists able to effectively mine these genomics databases, think creatively about gene function and who have the ability to work in multidisciplinary teams will be poised to lead this new wave of products. Monsanto's ability to move from gene to seed in an integrated environment ensures that scientists working at the cutting edge of genomics discoveries will realize the benefits of their contributions in the form of innovative new products in a global marketplace.

Monsanto is looking for outstanding scientists at all levels with diverse backgrounds who share a common commitment to advance genes from state-of-the-art genomics databases to validated product opportunities. Scientists will be responsible for driving their own projects and at the same time work collaboratively to achieve team goals. A commitment to continuous learning is important in this fast-paced genomics-enabled product development environment. Communication skills are critical for working across teams of expertise and multiple research sites. The ability to see the complete picture yet focus on driving forward specific opportunities will be essential. Monsanto offers a competitive compensation and rewards package and is committed to the personal development of outstanding scientists. Current openings for qualified and interested candidates are as follows:

Model Organism Molecular Biologists

The study of gene function of model organisms provides a powerful approach for characterizing genes from genomics databases and obtaining proof of concept for new product opportunities. We are looking for outstanding scientists with a background in *Drosophila* and yeast genetics who have research interests in taking a genetic approach to the study of signal transduction and transcriptional control. Candidates must be willing to work in a multidisciplinary environment with plant scientists to use model systems to rapidly advance new agricultural products. We require a Ph.D. and a minimum of 2 years post-doctoral research experience in the molecular biology and genetics of signal transduction and transcriptional control. Ability to effectively use bioinformatics tools for data mining and sequence analysis is also required. Good communication skills will be essential to work in this multidisciplinary team-based environment. Job Code: MB01.

Protein Biochemists/Enzymologists

Genomics based approaches to studying whole genomes are elucidating unprecedented biochemical diversity. New agricultural products will be driven by scientists able to express and characterize these novel proteins both in transgenic plants and as purified proteins in-vitro. A genetic approach to studying the biochemistry of novel proteins will be particularly important to exploit both natural and chemically induced variation. Candidates will work in multidisciplinary environment elucidating the function of novel genes and their uses for enhancing agronomic traits and performance. Requires a Ph.D. and minimum of 2 years post-doctoral research experience in protein biochemistry and enzymology. Ability to apply recombinant DNA technology to purify and characterize novel protein activities and effectively use bioinformatics tools for data mining and sequence analysis is also required. Candidates must possess ability to design and validate enzyme assays for a diverse array of novel proteins. Preference will be given

to candidates with a demonstrated research interest and previous experience in plant metabolism or the biochemistry of membrane bound proteins, including transporters and receptors. Good communication skills will be essential to work in this multidisciplinary team-based environment. Job Code: BE01.

Molecular Physiologist

Our understanding of the molecular basis for plant physiology is rapidly expanding, being driven by the genomics revolution and transgenic plant technologies. Plant physiologists now have tools to over-express, knockout, or alter the regulation of genes and study the resulting phenotypic effects on metabolism, development, reproduction and environmental response. Monsanto's advances in genomics and bioinformatics provides an unprecedented and challenging opportunity for scientists with a commanding knowledge of plant physiology to advance genes from genomics databases into next generation agricultural products. Our integration from gene to seed means you will be working in a multidisciplinary environment with bioinformaticists to plant breeders, ensuring your outstanding efforts will make a meaningful impact in our mission of abundant food and a healthy environment. Requires a Ph.D. and 2 years post-doctoral research experience in the molecular approaches to plant physiology. Ability to quantitatively assess changes in whole plant physiology using radioactive, HPLC and other assays is also required. Previous research and understanding of phytohormones and environmental response are highly desirable. Good communication skills will be essential to work in this multidisciplinary team-based environment. Job Code: MP01.

Microbial Geneticist

Microbial genomic sequencing projects have uncovered a wealth of genetic diversity which can be exploited in the development of novel agricultural products. We are seeking a creative and highly motivated microbial geneticist to work in a multidisciplinary environment to establish proof of concept for new agricultural products based on genes from microbial genomics databases. Candidates will have a Ph.D. and a minimum of 2 years post-doctoral experience in microbial genetics. The ability to effectively use bioinformatics tools and a commanding knowledge of metabolism is also required. Experience in gene disruption, transposon mutagenesis and comparative genomics analysis is highly desirable. Candidates must be able to think creatively about the application of microbial diversity to achieve abundant food and a safe environment. Good communication skills will be essential to work in this multidisciplinary team-based environment. Job Code: MG01.

Research Molecular Biologists

Challenging team-based opportunities for research scientists with molecular biology experience. Candidates will use their molecular skills to validate new Ag product concepts based on genes from genomics databases. The positions require a BS with 5 years experience or MS with a minimum of 2 years experience in molecular biology, genetics or protein biochemistry. The ability to effectively learn and apply bioinformatics tools for data mining and sequence analysis is also required. Previous experience in site-directed and random mutagenesis, transgene construction, full length cloning, ribonuclease protection assays or quantitative PCR is desirable. Preference will be given to candidates possessing research backgrounds with model organisms, signal transduction, transcriptional control of gene expression and molecular plant physiology. Good communication skills will be essential to work in this multidisciplinary team-based environment. Job Code: RM01.

Research Biochemists

Challenging team-based opportunities for outstanding research scientists with experience in protein biochemistry. Candidates will move novel genes from genomics databases into heterologous expression systems to facilitate purification and functional characterization. Candidates will also be challenged to develop biochemical assays to assess the phenotype of novel genes expressed in transgenic plants. Requires a BS with 5 years experience or MS with a minimum of 2 years laboratory experience in biochemistry or molecular biology. The ability to effectively learn and apply bioinformatics tools to analyze DNA and protein sequence is also required. Previous experience in expression, purification and kinetic characterization of recombinant proteins in *E. coli* or other heterologous systems is desirable. Experience in radioactive HPLC assay development and ELISA development is favorable. Good communication skills will be essential to work in this multidisciplinary team-based environment. Job Code: RB01.

For consideration please send resume to: **Monsanto Life Sciences, Job Code: (insert from above), Mail Code: 02C, 800 N. Lindbergh Blvd., St. Louis, MO 63167. Fax: 314/694-2303.**

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Scientists & Research Associates

Located in the San Francisco Bay Area, **Sunesis Pharmaceuticals** is a promising young biopharmaceutical company committed to the discovery, optimization, and early development of novel small molecule drugs through the application of innovative chemical & biological approaches. Our co-founders, Dr. Jim Wells (formerly of Genentech) and Professor Jon Ellman (UC Berkeley), along with VP of Research, Eric M. Gordon have made important contributions to the fields of protein engineering, combinatorial chemistry and drug discovery. We are currently assembling a world class scientific team to help us pioneer the future of drug discovery.

Medicinal & Combinatorial Chemistry

Our recent success in applying novel approaches to discover lead molecules for difficult drug targets has created several openings for Ph.D./MS/BS Medicinal & Combinatorial Chemists to transform non-peptide, small molecule leads into drug candidates. We seek exceptional candidates with 2-4 years of industrial experience, demonstrated expertise in drug discovery, a solid understanding of medicinal/combinatorial chemistry, and the proven ability to excel in a multidisciplinary environment. (Job# S0312-SMCC)

Biochemistry

Promising new technologies for lead discovery have created exciting opportunities for biochemists to identify and characterize drug leads for traditionally difficult targets. Scientist candidates must possess a Ph.D., industrial and/or postdoctoral experience, expertise in biophysics and/or enzymology, and a solid understanding of molecular recognition. The Research Associate position requires a BS/MS in biochemistry and familiarity with cloning, protein expression, and biophysical methods. (Job# S0312-SRAB)

In addition to attractive compensation & benefits, we will reward you with generous equity participation, a collaborative, exceptionally creative scientific environment, and an excellent opportunity to advance your career with a growing company. For consideration, please forward your CV, a list of references and a cover letter to:

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Human Resources
Attn: Job# _____
3696 Haven Avenue, Suite C
Redwood City, CA 94063
Fax: (650) 556-8824
Email: jobs@sunesis-pharma.com

www.sunesis-pharma.com

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You will train/evaluate supervised staff, plan work schedules and help to ensure safe and efficient laboratory operation. Requires a Bachelor's degree and 8 years related experience, a Master's degree and 6 years experience or a Ph.D. and 2 years experience. Must have strong scientific background and demonstrated performance in initiating and solving complex research questions. Additionally, we require solid technical expertise in selected scientific disciplines as well as the use of theories, concepts and principles of biochemistry, molecular biology and associated technologies. Excellent interpersonal and verbal/written communication skills are essential. We prefer expertise in neuroscience, molecular biology, cell biology, physiology, electrophysiology, biochemistry and pharmacology.

We reward our employees with a competitive salary, an excellent benefits package and a great working environment. Please send resume (e-mail preferred) to: klaus_jennifer@allergan.com If unable to e-mail, send to: **Allergan, Attn: JK/T2-1B, 2525 Dupont Dr., Irvine, CA 92612.** No phone calls please. EOE.



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MICROBIOLOGIST

IGEN International, Inc. a fast growing biotechnology/diagnostics company in Gaithersburg, MD, is currently recruiting a Ph.D. Microbiologist to work on the development of rapid assays for the detection of food-borne pathogens using IGEN's ORIGIN Electrochemiluminescence technology. Position will be initially based at the USDA in Wyndmoor, PA, however travel to other field sites, as well as IGEN's HQ in Gaithersburg, MD, and possible future relocation to headquarters is required.

The successful candidate will be a high-energy individual with a Ph.D. in Microbiology and experience in a research and/or development environment. Knowledge of molecular and immunoassay development is essential. As is demonstrated technical proficiency, scientific creativity, collaboration with others and independent thought.

Visit our web site (www.igen.com) to get an understanding of the technology. IGEN International, Inc. offers an excellent salary and comprehensive benefits package.

Please send resume to: IGEN International, Inc., 16020 Industrial Drive, Gaithersburg, MD 20877, ATTN: HR/JAW.



IGEN

Genentech's people share some pretty uncommon traits.

Not surprising when you consider the scope of our mission – creating breakthrough medicines for conditions like cystic fibrosis, stroke, growth disorders, cancer and heart attacks.

It demands a very special kind of person. Someone who will take risks, accept responsibility, and constantly seek creative solutions.

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www.gene.com

POSTDOCTORAL OPPORTUNITIES

The Genentech Postdoctoral Program consists of more than 50 researchers and is a vibrant and intensive environment for advanced scientific training. Here, you will have the chance to conduct basic research in areas of our scientific interest, publish in scientific journals and present work at scientific meetings. As one of the nation's most prolific scientific facilities, publishing at a rate of approximately 250 papers a year, Genentech offers an exceptional range of postdoctoral opportunities. With close to 3,000 patents and another 2,000 pending, Genentech provides a proven pathway for your work to reach the true benefactor—the patient. The following opportunities are available for candidates with a PhD and/or MD and a strong background in the appropriate field.

Protein Design

This postdoctoral fellowship will focus on the area of protein design for tumor targeting in the laboratory which was instrumental in creating the new drug to combat breast cancer—Herceptin™. The successful candidate will design and characterize antibody and ligand fusion proteins with human nucleases and caspases. Experience in molecular biology, protein biochemistry, enzymology and/or cancer biology preferred. See *Cancer Res.* 55:63 (1995); *Protein Eng.* 8:1057 (1995); *Bio/Technology* 14:192 (1996); *Protein Eng.* 9:617 (1996); *J. Mol. Biol.* 270:26 (1997); *Protein Sci.* 6:781 (1997); *Nature Biotech.* 16:677 (1998); *Biochemistry* 37:9266 (1998).

Manager: Dr. Paul Carter. Job Code: SCI3378

Neuroscience

A position is available in the area of developmental neurobiology for an outstanding postdoctoral fellow. The successful candidate will utilize advanced

molecular, cellular, and genetic approaches to identify and study genes that control commitment and differentiation in the central nervous system. See *Cell* 80:95 (1995); *Nature* 373:339 (1995); *Science* 267:455 (1995); *Nature* 384:126 (1996); *Nature* 382:80 (1996); *Nature* 382:76 (1996); *Nature* 387:717 (1997); *Neuron* 19:15-26 (1997); *Nature* 391:90 (1998); *Neuron* 19:15-26 (1998); *Cell* 80:95 (1998). **Manager: Dr. Arnon Rosenthal. Job Code: SCI0059**

Cardiovascular Research

This postdoctoral fellowship will investigate the regulation of blood vessel growth by vascular endothelial growth factor (VEGF) and by other novel factors, applying molecular, cellular and *in vivo* approaches. Requires a strong background in molecular biology or cellular biology. See *Nature* 362:841-844 (1993); *Nature* 380:439-442 (1996); *EMBO. J.* 15:4919-4927 (1996); *Endocr. Rev.* 18:4-25 (1997); *Nature Med.* 3:336-340 (1998). **Manager: Dr. Napoleon Ferrara. Job Code: SCI2725**

Protein Crystallography

As the selected postdoctoral fellow, your research will involve crystal structure determination of medically relevant proteins. This will include growing protein crystals, collecting data using our in-house equipment and synchrotron sources, solving the phase problem by molecular replacement or heavy atom methods, and completing the structure by crystallographic refinement. Protein purification and molecular biology may be involved as well. Your protein crystallography background must include broad experience with modern crystallographic techniques and software; experience with multiple isomorphous replacement and MAD phasing is

highly desirable. See *Biochemistry* 37:17765-17772 (1998); *J. Mol. Biol.* 277:1111-1128 (1998); *Cell* 91:695-704 (1997); *Science* 278:1125-1128 (1997). **Manager: Dr. Abraham de Vos. Job Code: SCI0130**

Molecular Biology

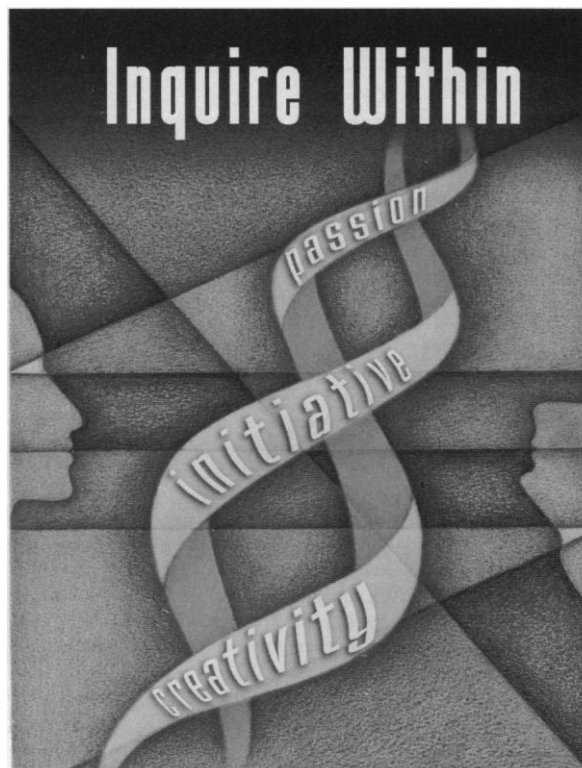
This postdoctoral position will study the molecular biology of novel secreted proteins and receptors of potential therapeutic value. Experience in receptor-ligand interactions or receptor-mediated signal transduction would be an advantage. See *Current Biology* 9:215-218 (1999); *Science* 277:818-821 (1997); *Gene* 215:291-301 (1998). **Manager: Dr. Kevin Baker. Job Code: SCI0200**

Our progressive benefits package includes full medical/dental/vision care, 3 weeks vacation, stock purchase plan and health club membership. Send your resume, indicating Job Code, to: Genentech, Inc., Human Resources, PO Box 1950, South San Francisco, CA 94083-1950. Please use plain typefaces. You may email your resume, indicating Job Code, to jobs@gene.com (ASCII files only with a maximum line width of 76 characters). We cannot accept faxed resumes.

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RIBOGENE, INC.

We are an early-stage, publicly-held (AMEX: RBO) biotechnology company focused on the identification of novel drug candidates, for the treatment of infectious diseases, by targeting pathogen-specific translational mechanisms. Join our dynamic company and realize the advantages that a RiboGene career can offer. We seek an enthusiastic and experienced individual for the following position:

○ SCREENING GROUP LEADER

The successful candidate will lead a group of scientists focused on the development and implementation of high-throughput screens (HTS) and secondary assays in support of our anti-infective drug discovery programs. Requires a talented individual with a PhD in Biochemistry or related biological discipline and 6+ years industrial laboratory experience, including significant experience leading a small-molecule biomolecular screening program. Exceptional BS/MS candidates will be considered. Prior experience optimizing and running enzyme and cell-based HTS, evaluating and purchasing robotics, and working with relational databases is essential. UNIX and Oracle experience is preferred. Excellent communication skills and the ability to work effectively in a multidisciplinary team environment are also critical for this position.

RiboGene is located in a new, state-of-the-art facility near San Francisco, CA. The company offers a competitive salary and benefits plan including stock options. For consideration, send a cover letter and resume to: RiboGene, Inc., Human Resources, Job Code CG, 26118 Research Rd., Hayward, CA 94545. Fax: (510) 732-7741. Visit our website at www.ribogene.com. EOE.

DIET AND FITNESS CENTER DIRECTOR

Duke Medical Center is seeking candidates for the position of Director of the Duke Diet and Fitness Center (DFC). The DFC is a large multidisciplinary obesity and weight management treatment program designed primarily for the treatment of medium to long term residential participants. The program is heavily based in behavioral therapy, but also incorporates medical care, nutritional, and fitness components. We are seeking a health professional trained in Psychology or Psychiatry with at least four years experience in leading obesity management programs to lead the DFC and other weight management programs at Duke. The individual must be dedicated to promoting healthy lifestyles, possess strong leadership and communication skills, and have a solid commitment to provide quality care. The DFC Director will have overall program leadership responsibilities, will lead the behavioral component of the DFC, will be responsible for leading a clinical research effort focused on weight management and will design and implement training programs for health care professionals in weight management at Duke. The DFC Director will also have major oversight for the development of new obesity management programs (both clinical and research) for the Duke University Health System. Interested candidates should send CV to:

William E. Kraus, M.D., Director, Center of Living
Duke University Medical Center, DUMC 3022

Durham, NC 27710

FAX: 919-681-8570

Duke University Medical Center is an Equal Opportunity Employer and actively solicits applicants from minority groups.



DUKE UNIVERSITY MEDICAL CENTER



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Research on zinc finger transcriptional repressors, epithelial cell growth, and cancer. Postdoctoral position immediately available for a highly motivated individual to study the role of novel zinc finger proteins in transcriptional repression and in the regulation of normal and neoplastic pancreatic epithelial cell growth. (J Clin Invest 1997;99(10):2365; J Biol Chem 1998;273(40):25973) The successful candidate will be part of a multidisciplinary team using state-of-the-art molecular and cell biological techniques. Applicant should have previous experience in protein chemistry and/or molecular biology. Send curriculum vitae and three references to:

Raul Urrutia, MD
GI Research Unit
Mayo Clinic, Alfred 2-435
200 First Street SW
Rochester, MN 55905
Fax: 507/255-6318

E-mail: urrutia.raul@mayo.edu
Mayo Foundation is an affirmative action and equal opportunity employer and educator.

Research Scientist Structural Chemistry

Gilead Sciences is an independent biopharmaceutical company that has an opportunity within our Structural Chemistry group for a Research Scientist.

You will be responsible for small molecule modeling and quantitative structure activity relationship analysis for our Medicinal Chemistry program. Strong knowledge of conformational analysis of small molecules and QSAR techniques and statistical analysis is a must. Computer proficiency is essential. A Ph.D and 3-5 years' related experience is required.

Interested candidates may send resume, indicating Job Code SC198-050 via email to: careers@gilead.com (no attachments please), or fax to: (650) 578-9264, or mail to: Human Resources, Gilead Sciences, 333 Lakeside Drive, Foster City, CA 94404. Gilead Sciences is proud to be an equal opportunity employer.

GILEAD SCIENCES

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At Johns Hopkins Bayview Medical Center, a 700-bed community teaching facility located in Baltimore, Maryland, providing the finest health care services to area families begins with building a sense of community within our own walls. Join us and you'll see how enjoyable—and energizing—teamwork can really be.

TRANSGENIC AND KNOCKOUT INJECTION SPECIALIST

The Transgenic and Knockout Facility (TKFS), Gerontology Research Center, IRP, NIA, NIH, has an opening for a Transgenic and Knockout injection specialist. The TKFS is a service section that directs all aspects of creating transgenic and knockout mice at the GRC, but also engages in an independent research program studying dopamine cell involvement in neurotoxicity and drug abuse. The injection specialist position supports both the service function, as well as the research projects of the TKFS. The ideal candidate will have experience with pronuclear injection of both inbred and hybrid lines, blastocyst injection, superovulation, isolation of embryos, reimplantation of injected embryos into pseudopregnant females, and molecular biological techniques useful for genotyping and analysis of transgene expression. All levels will be considered. Embryo injection experience required.

We invite you to discover the Hopkins Bayview difference—starting with our salaries, benefits, and programs that encourage your growth. Please forward your resume to: **M. Allen, Staffing Specialist, Johns Hopkins Bayview Medical Center, 4940 Eastern Avenue, Baltimore, MD 21224. Fax: (410) 550-0184. AA/EOE/M/F/D/V.**



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NATIONAL EXPOSURE RESEARCH LABORATORY POST-DOCTORAL PROGRAM

The National Exposure Research Laboratory (NERL) of the United States Environmental Protection Agency is seeking candidates to fill as many as **24 federal, four-year post-doctoral research positions** during the coming year. NERL conducts research and development related to the exposure of people and ecosystems to a wide range of pollutants in the air, water, and soil, and to other environmental changes resulting from human activities at a wide range of scales including landscape alterations. This research encompasses areas such as environmental monitoring and characterization (physical, chemical, biological, and microbiological); computer modeling of the transport, transformation, and fate of pollutants in multiple media and at multiple scales; human and ecological exposure analysis (including the development of exposure biomarkers and bioindicators); remote sensing applications; and landscape ecology. NERL also field-tests, evaluates, and demonstrates the applications of these findings to environmental problems of national importance to EPA's regulatory and regional offices, other federal agencies, and state, local, and tribal governments. Among NERL's current priorities are exposure of humans to airborne particulate matter and emerging microbial pathogens (bacteria, protozoan parasites, and viruses) in water supplies; exposure of children to pesticides; multi-media, multi-pathway exposure modeling in humans; influence of landscape changes on surface water quality; development of integrated multimedia (atmospheric, terrestrial, and aquatic) transport and fate models; and assessment of the relative risk of exposure to a variety of stresses in regional ecosystems and large watersheds.

Because of the broad range of NERL's research mission, we are seeking candidates from a wide range of disciplinary backgrounds, including environmental science, chemistry, physics, biology, molecular biology, bacteriology, protozoology, virology, ecology, geography, applied mathematics and statistics, human health sciences, meteorology, computer science, and environmental or chemical engineering. The preferred candidate will have earned a Ph.D. in one of these areas within the last five years or will be awarded it not later than August 31, 1999.

The NERL post-doctoral positions will be located in a division at either Research Triangle Park, North Carolina; Cincinnati, Ohio; Athens, Georgia; or Las Vegas, Nevada, depending on the particular disciplinary focus, and will be filled beginning **June 1999**. Successful applicants will begin work before October 1, 1999. These excepted service appointments will last for four years and offer a salary range of **\$39,960 – \$62,260**, commensurate with qualifications. The selected candidates will be eligible for a **full benefits package**, including relocation expenses, health insurance, life insurance, retirement, and vacation and sick leave benefits. **United States citizens are preferred and will be given first consideration for all positions.**

The filing deadline for these post-doctoral positions is **March 31, 1999**. If you are interested, **please mail a curriculum vitae, a letter of recommendation from your senior research advisor or other comparable official, and a letter indicating your research focus, desired position(s) and the geographic NERL location(s) you prefer** (see NERL Internet site below for specific positions) to Ms. Dorothy Carr, U.S. Environmental Protection Agency, Human Resources Management Division (MD-29), Research Triangle Park, NC 27711, Attn: NERL Post-Doctoral Program. If you are claiming veterans' preference, please include your **DD-214** with your application package.

If you send your application via Federal Express, address it to Ms. Dorothy Carr, U.S. Environmental Protection Agency, Human Resources Management Division (MD-29), 4201 Building, Suite 105, 79 Alexander Drive, Research Triangle Park, NC 27709, Attn: NERL Post-Doctoral Program. You may also submit your application via facsimile (fax) machine to (919) 541-2186; however, applications faxed from a U.S. government fax machine will not be accepted. Applications sent electronically via the Internet or mailed in U.S. government postage-paid envelopes will also **not** receive consideration. Your application materials must be received in the Human Resources Office or postmarked by **March 31, 1999**. Questions may be directed to Ms. Carr at (800) 433-9633. After all responses are reviewed, candidates will receive written notice of the status of their applications no later than **June 15, 1999**.

For specific job information on for the NERL post-doctoral program, you may access the National Exposure Research Laboratory's Internet site at <http://www.epa.gov/nerl/>

The U.S. EPA is an Equal Opportunity Employer.

PROGRAM OFFICER Graduate Science Education Program

The **Howard Hughes Medical Institute (HHMI)** is a private biomedical research and philanthropic organization. We are seeking a **Program Officer** to administer our Graduate Science Education Program, at our national headquarters in **Chevy Chase, MD**.

Responsibilities include: management of fellowship competitions, from announcement through peer review and award; program administration; financial oversight and budget management; policy development and program assessment; electronic and Web-based information systems development; and coordination of program reports, meetings, and publications. See www.hhmi.org/fellowships for descriptions of the programs.

Preferred qualifications include: M.D. or Ph.D degree in Biological Sciences, with laboratory research experience in a university or medical school environment; at least 5 years of

experience in administration and policy-making relevant to biomedical research and science education; experience with database development and analysis; strong quantitative, analytical, and organizational skills; and experience managing a multimillion dollar budget. Strong interpersonal, written, and verbal communication skills are essential, as are experience in application of office technology and Internet resources.

HHMI offers a competitive salary and excellent benefits package. Please send your resume and salary requirements, to: **HHMI, Attn: CL, Human Resources Department, 4000 Jones Bridge Road, Chevy Chase, MD 20815-6789**. EOE.

Visit us at: www.hhmi.org

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Be prepared to make a difference like you've never imagined.

Helping to maximize the impact of human discovery and endeavor: this defines our far-reaching role at The National Academies. We serve as the nation's source of objective, independent research and principled expertise that contributes to national policymaking in matters of science, technology, and engineering. Currently, we are seeking an experienced professional who will join our talented staff in **Washington, D.C.**

Program Officer

We are seeking a Program Officer for our Space Studies Board to manage studies and develop research background material. Responsibilities include developing and supporting technical and policy studies in the areas of space science research; organizing and managing study groups including meeting planning, preparing agendas and minutes; and performing other assigned duties. Requires an MA/MS or equivalent in physical/life science or science policy plus at least 4 years of relevant research or policy experience in life science or biological research in one or more of the following areas: space research, science or space policy, legislative or agency staff work, or program/project management. Ability to analyze and articulate issues and synthesize technical and policy oriented information is necessary. Intellectual initiative, strong planning, organizational, interpersonal, and oral and written communication skills are a must. Knowledge of internet-based information access and management desirable. This is a part-time opportunity that could lead to a full-time position.

We offer competitive salaries and an excellent benefits package. For consideration, please forward your resume with salary requirements to: **National Academy of Sciences/SSB, HA-584, 2101 Constitution Ave., NW, Washington, DC 20418**. Fax: (202) 334-3701. EOE, M/F/D/V.

www.nas.edu

NATIONAL RESEARCH COUNCIL
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- Stereochemistry
- Thermodynamics

We have several full-time positions available in analyzing, abstracting, and indexing the world's scientific literature and building the CAS database in order to provide up-to-date information services to scientists around the world. Candidates should have a BS, MS or PhD in Chemistry or a chemistry related area. The ability to read technical documents and patents in Japanese, French, German, Russian or Korean would be helpful.

We offer a professional working environment in a convenient suburban area as well as competitive salaries, excellent insurance and retirement programs and generous vacations. For consideration, please fax, mail, or e-mail your resume, salary history, language expertise and a copy of your college transcripts to:

Chemical Abstracts Service
Human Resource Services Department-SR
P.O. Box 3012
Columbus, Ohio 43210
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Novartis Agribusiness Biotechnology Research

Novartis is a world leader in life sciences with prominent positions in Crop Protection, Seeds, and Animal Health. Our resources and experience enable us to continually develop new chemistries and technologies to create and improve environmentally responsible herbicides, insecticides, and fungicides. This is your chance to make a significant contribution to world agriculture in our casual dress, 250 person, state-of-the-art biotechnology facility located in Research Triangle Park, NC.

Molecular Biologist (Position #9920)

We are looking for a highly motivated and innovative individual to apply molecular and biochemical expertise to an applied research problem. The project involves the control of male and female fertility in plants to create a hybridization system for commercial seed production.

Candidates should have a recent Ph.D or a Masters degree with significant research experience in molecular biology, biochemistry, or a related field. Experience with vector construction, RNA and protein expression analyses essential. The position will entail the cloning and expression engineering of novel genes and promoters, and the functional testing of these sequences for expression and activity in plants.

Candidates should provide a brief statement of interest in the project, including specific examples of how the candidate's background and knowledge will be useful, technically or conceptually, to the problem of fertility control in plants (for reference please read the review article "Genetic engineering for pollination control," Trends in Biotechnology (1995) vol 13, pp344-349). Please include this statement within the text of the resume; do not put this statement into the cover letter.

Molecular Biologist (Position #9910)

This individual will work with a multidisciplinary team to identify new lead insecticidal genes. You will clone, express and characterize the new lead genes while identifying receptor genes in insects.

Candidates should have an MS with 5+ years experience or a Ph.D in Biochemistry or Molecular Biology. Extensive experience in heterologous gene expression systems, affinity chromatography and ligand blot analysis is preferred. A strong background in protein biochemistry and molecular biology is required. Knowledge of insecticidal genes is beneficial.

Post-doc in Phytophthora Genomics (Position #9915)

This successful candidate will join a newly formed team of scientists on our Phytophthora Genomics consortium project. The project aims to accelerate our understanding of Phytophthora biology based on a genomics approach. It will involve a number of academic laboratories and generate substantial genomics information.

While candidates conduct daily research on the molecular biology of Phytophthora they will be expected to identify and characterize key molecular processes in the life cycle of Phytophthora. By contributing to the generation and utilization of Phytophthora genomics information candidates will ultimately be developing and improving genetic technology for functional analysis in Phytophthora.

Candidates should possess a Ph.D in Microbiology, Molecular Biology, Genetics, or related fields and be able to demonstrate the ability to successfully carry out complex molecular biology experimental procedures. Strong fungal molecular biology training and experience with genomics sciences preferred

Plant Molecular Biologist (Position #9916)

Responsibilities will include isolation and characterization of promoters for tissue specific expression to be used in insect control projects for vegetables. Individuals will characterize expression patterns of these promoters by molecular and histological methods.

Candidates should possess a recent Ph.D or MS with significant research experience, with a demonstrated ability to accomplish technical research objectives, modify experimental design based upon results, present results, and improve techniques. Experience with microscopy/ histology, knowledge of plant physiology and plant/pest interactions will be a plus. Strong and diverse molecular biology skills are required.

Novartis Agribusiness Biotechnology Research, Inc. offers a competitive salary commensurate with qualifications and experience, a comprehensive benefits package, and an environment conducive to professional achievement. Qualified candidates should forward a resume and cover letter to: novartisbiotech@hiresystems.com Indicate the Position #___ in the subject area. To ensure that your information is uploaded into our HR System, please do not send your resume and cover letter as attachments. We are an Equal Opportunity Employer M/F/D/V.

For Job opportunities at Novartis visit: www.careermosaic.com Click on "Employer" and follow the alphabetized links to the Novartis site.



Johann Wolfgang Goethe- Universität Frankfurt am Main

The Goethe-University, Frankfurt am Main, Germany invites applications for five postdoctoral positions in the field of NMR-based drug design. These positions are part of a collaboration with Hoechst/Aventis Research & Technologies which is scientifically administered by Professor Rüterjans and Professor Griesinger, University of Frankfurt. Appointments are initially for 1.5 years and can be extended up to 4 years depending on the success of the cooperation. The salary is according to the civil servant rates (BAT IIa).

2 Scientists Molecular Biology (ref.-No. 001)

Your task

Responsibilities include development and application of expression, isotopic labelling and purification of proteins.

Your Profile

You should have a Ph.D. in biological or chemical sciences and have demonstrated experience in the successful development and application of recombinant expression systems for proteins. Experience in a broad range of techniques of modern biology and protein chemistry is essential.

2 NMR Specialists (ref.-No. 002)

Your task

Responsibilities include development and application of modern NMR techniques for the elucidation of the solution structures of proteins as well as of protein ligand complexes.

Your Profile

You should have a Ph.D. in biological or chemical sciences and have experience in modern multidimensional multinuclear NMR spectroscopy and structural determinations of proteins from NMR data.

1 Scientist Bioinformatics (ref.-No. 003)

Your task

You will work in close collaboration with molecular biologists, NMR specialists, medicinal chemists in the field of drug lead-discovery, bioinformatical analysis of target proteins and effector molecules as well as in the development of dedicated software.

Your Profile

You should have a Ph.D. in informatics or biological or chemical sciences and a track-record for successful work in the field of bioinformatics. We expect a broad knowledge and experience of software and databases and excellent skills for software development.

If your background and personal experience fit one of the listed profiles, you possess excellent communication skills and want to engage in building up a vigorous team of excellent scientists dedicated to the drug discovery and development in a small institution at the interface between academia and industry, please send your complete application including a brief description of research activities, a list of publications, details of three references and ref.-No. to:

Prof. Dr. H. Rüterjans
Institut für Biophysikalische Chemie
Marie-Curie-Str. 9
D-60439 Frankfurt am Main
Germany

We encourage to submit your application electronically. If you do so, please send them to: cigr@org.chemie.uni-frankfurt.de (Prof. Dr. C. Griesinger) or hruet@peter.bpc.uni-frankfurt.de (Prof. Dr. H. Rüterjans)



University of California
San Diego

Faculty Position Cellular and Molecular Biology

Applications are invited for a position at the Assistant Professor level in the Department of Pathology in association with the Division of Cellular and Molecular Medicine. Salary commensurate with experience and based upon UC pay scales.

Applicants should have a Ph.D., M.D. or combined M.D./Ph.D. degree and demonstrated ability to conduct a state-of-the-art research program using modern techniques in molecular cell biology to investigate an area of science relevant to human disease. The applicant is also expected to teach and do research training of medical and graduate students.

Submit curriculum vitae, statement of professional goals, and research interests and names and addresses of 5 to 7 references by April 10, 1999, to:

Search Committee
c/o Marilyn G. Farquhar, Ph.D.
Division of Cellular and Molecular Medicine
University of California San Diego
9500 Gilman Drive
La Jolla, CA 92093-0651
mfarquhar@ucsd.edu

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Cold Spring Harbor Meetings

Biology of Proteolysis

May 5 – 9, 1999

Organized by:

Charles S. Craik, *University of California, San Francisco*
Susan Gottesman, *National Cancer Institute*
Mark Hochstrasser, *University of Chicago*
Yuri Lazebnik, *Cold Spring Harbor Laboratory*

Topics include: Signal Transduction • Protease Complexes & cascades • Development • Cell Cycle • Chaperones & Protein Quality Control • Infectious Diseases & Host Pathogen Interaction • Neoplasia • Cell Death

Tyrosine Phosphorylation & Cell Signaling

May 12 – 16, 1999

Organized by:

Sara Courtneidge, *SUGEN, Inc.*
Ben Neel, *Harvard Medical School*
Nick Tonks, *Cold Spring Harbor Laboratory*

Topics include: RTK Signalling and Disease Growth Control • Hematopoietic Cellular Signalling • Tyrosine Phosphorylation in the Immune System • Cytoskeleton and Cell Adhesion • Neuronal Signaling • Development • Human Disease

We encourage online registration and abstract submission!

Cold Spring Harbor Laboratory

Meetings & Courses Office

1 Bangtown Rd

Cold Spring Harbor, NY 11724-2213

Email: meetings@cshl.org

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<http://www.cshl.org/meetings/>





Argonex Pharmaceuticals

Argonex Pharmaceuticals is engaged in the development of tumor vaccines to a variety of human cancers. The core technology of the company involves DIRECT®, a combination of analytical chemistry and cellular immunology that was developed by Drs. Victor Engelhard and Donald Hunt of the University of Virginia. DIRECT® is currently being used to identify tumor-derived peptides that associate with class I MHC molecules, and that are recognized by cytotoxic T-lymphocytes.

CELLULAR IMMUNOLOGY

STAFF SCIENTIST who will be responsible for the identification of tumor antigens using established CTL and tumor lines. Experience should include T cell culture, analysis of T cell function by cytotoxicity assays and ELISA, flow cytometry, and protein isolation and characterization. The ideal candidate will be a highly motivated individual capable of performing innovative research in an interdisciplinary, team environment. A Ph.D. in immunology or a related field is required, as is a minimum of 3–5 years of post-doctoral or industrial experience. Appointment at the **SENIOR STAFF SCIENTIST** level will be considered for appropriately qualified individuals.

RESEARCH ASSOCIATES are needed to conduct experiments in tumor antigen identification. Candidates should have experience in one or more of the following areas: T cell culture and analysis, tumor cell culture, ELISA, flow cytometry, hybridoma antibody production, and protein purification. The ability to work in a team environment with minimal supervision is required. A B.S./M.S. in biology or related field is required, as is a minimum of 5 years of relevant experience.

MOLECULAR BIOLOGY

STAFF SCIENTIST who will be responsible for identifying, cloning, and characterizing the genes encoding tumor-rejection antigens that are recognized by CTL, developing and assessing appropriate gene libraries from normal and tumor tissue for tumor gene expression, and for providing molecular biology support functions including the development of plasmid and vaccinia expression vectors. Experience should include standard molecular biology techniques including the cloning and sequencing of novel genes. Experience with vaccinia and/or adenovirus production and purification is required. The ideal candidate will be highly motivated individual capable of performing innovative research in an interdisciplinary, team environment. A Ph.D. in molecular biology or a related field is required, as is a minimum of 3 years of post-doctoral experience.

A **RESEARCH ASSOCIATE** is needed to conduct experiments in the cloning and sequencing of tumor antigens. Candidates should have experience in one or more of the following areas: construction of plasmid and viral vectors, PCR, and the cloning of novel genes. Experience in viral vector production and purification is preferred. The ability to work in a team environment with minimal supervision is required. A B.S./M.S. in biology or related field is required, as is a minimum of 5 years of relevant experience.

Qualified candidates for the above positions should forward their curriculum vitae, a 1–2 page summary of their previous research experience, and the names and addresses of 3 references to:
Human Resources, Argonex Pharmaceuticals, Suite 1, 706 Forrest St., Charlottesville, VA 22903. An Equal Opportunity Employer.

The Center for Scientific Review National Institutes of Health Scientific Review Administrators

The Center for Scientific Review (CSR) at the National Institutes of Health (NIH) is undergoing an expansion. Building on 50 years of pride in peer review as the Division of Research Grants, CSR would like to identify highly qualified research scientists who are interested in serving as Scientific Review Administrators for CSR Study Sections. Individuals should have a history of proven independent research experience in their fields and have a broad knowledge of their scientific areas.

We are seeking highly motivated, enthusiastic individuals with excellent judgement and highly developed communication, analytic, interpersonal, organizational and writing skills. These individuals will apply their capabilities to the present and future challenges offered in scientific review.

Scientific Review Administrators will be responsible for understanding the current status and identifying future directions of their areas of biomedical research; selecting members of review panels; managing study section meetings; facilitating interactions with study section members and communicating the results of their deliberations and recommendations to the applicants and to the staff of the NIH Institutes which fund the applications.

These are GS-12, 13, or 14 Civil Service Positions, *requiring U.S. citizenship*. The current salary range for these positions is \$48,796 to \$89,142 per year. Applicants must have: a Ph.D. degree or M.D. degree (or have equivalent training and experience); postdoctoral research training; and, a record of research accomplishment. Recruitment bonuses may be available. For positions requiring the M.D. degree, a physician's comparability allowance is available.

Further information, qualification details and needed areas of scientific expertise can be obtained on the web site <http://www.csr.nih.gov/interest.htm>. The deadline date for consideration is April 9, 1999.



Co-ordinator
Center for Scientific Review
National Institutes of Health
6701 Rockledge Drive
Bethesda, MD 20892-7776
E-Mail: scirev@csr.nih.gov

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POSITIONS OPEN

FACULTY POSITION DEPARTMENT OF MOLECULAR AND CELLULAR PHYSIOLOGY

The Department of Molecular and Cellular Physiology at the Louisiana State University Medical Center (LSUMC) in Shreveport invites applications for two (2) **TENURE-TRACK** faculty appointments beginning fall 1999. Outstanding candidates at all academic ranks are encouraged to apply. Applicants must have a Ph.D. and/or M.D. degree and appropriate postdoctoral research experience. We are seeking individuals whose research interests complement existing areas of programmatic emphasis on the biology of the vascular wall and/or inflammation. The appointee will be expected to establish a vigorous independent research program and to participate in the teaching of graduate and medical students. For information about the Department, visit our homepage at [website: www.shreveportphysiology.com](http://www.shreveportphysiology.com). Applicants must submit a curriculum vitae, a brief summary of current and future research plans, and the names of three references to: Ms. Shari Korthuis, Search Committee Coordinator, Department of Molecular and Cellular Physiology, Louisiana State University Medical Center, 1501 Kings Highway, Shreveport, LA 71130. The closing date for applications is May 31, 1999, or until the position is filled. *LSUMC is an Affirmative Action Employer.*

TENURE-TRACK FACULTY POSITION IN PHARMACOLOGY

The Department of Pharmacology at the University of Vermont College of Medicine invites applications for a tenure-track position in pharmacology (**ASSISTANT** or **ASSOCIATE**). Candidates should have a Ph.D. or M.D. degree with at least two years of postdoctoral training. Applicants at the Associate Professor level must have a funded and productive research program and demonstrated excellence in teaching, scholarship, and service. Candidates are sought in the field of cardiovascular research including the molecular biology of ion channels (including SR and nuclear envelope channels), cell signaling, or control of cell proliferation/growth/death. The successful candidate will be expected to pursue an extramurally funded, independent research program and must be committed to excellence in teaching. Applicants should submit a curriculum vitae, statement of research objectives and career goals, and three letters of reference to: Search Committee, Department of Pharmacology, College of Medicine, University of Vermont, Burlington, VT 05405. The deadline for receipt of applications is May 1, 1999.

The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Women and people from diverse racial, ethnic, and cultural backgrounds are encouraged to apply.

FACULTY POSITION IN THE DEPARTMENT OF MEDICINE DIVISION OF CLINICAL IMMUNOLOGY Available Immediately

The University of Colorado Health Sciences Center (UCHSC), Division of Clinical Immunology, invites applications for an **ASSISTANT/ASSOCIATE PROFESSOR** position to establish an independent research program investigating mechanisms of diseases relevant to the immune system. Candidates should have a Ph.D. or M.D. and evidence of an established independent research program in a related field and documented interest in questions relevant to clinical immunology. Interested applicants should submit a curriculum vitae, statement of research interests, and names of three references to: Dr. Brian L. Kotzin, Mail Stop B164, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Denver, CO 80262. *The University of Colorado Health Sciences Center is committed to Equal Opportunity and Affirmative Action.*

The University of Florida seeks a full-time, non-tenure-track **RESEARCH ASSISTANT PROFESSOR** for the Department of Medicine, Division of Nephrology. Ph.D. degree with research experience in cell signaling systems. Responsibilities would include research in cell signaling systems, G-protein-dependent signaling systems and cultured cell expression systems of proteins. Second messenger studies and cell structure analysis. Salary and benefits commensurate with experience. Recruiting deadline: April 8, 1999. Anticipated start date: May 1, 1999. Please respond with curriculum vitae to: R. Tyler Miller, M.D., Associate Professor in Medicine, Box 100224, JHMHC, Gainesville, FL 32610. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

FACULTY POSITION BIOMATHEMATICS/ QUANTITATIVE PHYSIOLOGY McGill University

The Department of Physiology and the Centre for Nonlinear Dynamics in Physiology and Medicine (see [website: http://www.cnd.mcgill.ca](http://www.cnd.mcgill.ca)) invite applications for a tenure-track **ASSISTANT PROFESSOR** faculty position. This person must have multidisciplinary training in an area of mammalian biology and applied mathematics or computer science, a record of successful quantitative treatment of problems in mammalian biology and/or human disease, and an ability to participate in both undergraduate and graduate teaching. Research areas of interest can range from the genetic/molecular level, through the cellular to system/whole organ. Depending on research interests and training, cross appointments with other McGill departments may be arranged. Candidates will be expected to successfully compete for outside funding through the Natural Sciences and Engineering Research Council (NSERC) University Faculty Awards (UFA) programme (see [website: http://www.nserc.ca/programs/sf/UFA_e.htm](http://www.nserc.ca/programs/sf/UFA_e.htm) for a full description) that generously provides both salary and research funds for a five-year period, must have a Ph.D., be near completion of postdoctoral work, and must be a citizen or a permanent resident of Canada not holding a tenure-track position at a Canadian university. Those applying should send (by 1 July 1999) a curriculum vitae, a statement of past and future research interests, and copies of representative published research, and arrange to have three letters of recommendation sent to: Prof. Alvin Shrier, Chair, Biomathematics/Quantitative Physiology Search Committee, Department of Physiology, Room 1001, McIntyre Medical Sciences Building, McGill University, 3655 Drummond, Montreal, Quebec H3G 1Y6 Canada.

FACULTY POSITIONS IN IMMUNOLOGY THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

The Department of Medicine and the Graduate Program in Immunology at the Johns Hopkins University School of Medicine invite applications for **ASSISTANT** or **ASSOCIATE PROFESSOR**-level positions in immunology. Candidates pursuing molecular approaches to any area of immunology are invited to apply. Successful applicants will receive primary appointments in the Department of Medicine and will become members of the Graduate Program in Immunology ([website: http://www.med.jhu.edu/gradweb/immunology/](http://www.med.jhu.edu/gradweb/immunology/)).

Interested applicants should send a curriculum vitae, the names and addresses of three references, and a short summary of research plans to:

Dr. Robert F. Siliciano
Department of Medicine
Johns Hopkins University School of Medicine
1049 Ross Building
720 Rutland Avenue
Baltimore, MD 21205
Telephone: 410-955-2958
FAX: 410-955-0964

E-mail: rsilicia@welchlink.welch.jhu.edu

Equal Opportunity Employer/Minorities/Females/Disabled.

Neurodegenerative diseases. Applications are invited for a University tenure-track position at the **ASSISTANT, ASSOCIATE, or FULL PROFESSOR** level. We are seeking an individual with a demonstrated commitment to research in degenerative neurological diseases including the trinucleotide repeat diseases, ALS, Parkinson's disease, or Alzheimer's disease. Expertise in clinical neurology is not required, but is especially desirable as this will encourage the integration of clinical and scientific programs in neurodegenerative disease. The appointee will be expected to establish an outstanding research program. They will supervise medical students and Fellows in their own laboratory, and are expected to participate in departmental teaching programs and to play a leadership role in the Stanford neuroscience community. Applications will be accepted from M.D.'s and Ph.D.'s. Interested individuals should send a curriculum vitae, a description of research interests, and the names, addresses, and telephone numbers of three references to: Prof. Lawrence Steinman, Department of Neurology and Neurological Sciences, Stanford University Medical Center, Room H3160, Stanford, CA 94305-5235. *Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.*

POSITIONS OPEN

DIRECTOR, DIVISION OF CARDIOLOGY PROFESSOR OF MEDICINE Rhode Island Hospital, The Miriam Hospital Brown University School of Medicine

The Department of Medicine at Brown University School of Medicine and Lifespan Academic Medical Center seek a Physician, Board-certified in internal medicine and cardiovascular diseases to lead its Division of Cardiology. Candidates should possess a full and unrestricted license to practice medicine in the State of Rhode Island or be licensed in another jurisdiction and be eligible for licensure in Rhode Island. Candidates must qualify for appointment at Brown University as a Full Professor in the research scholar track. Appointment at the level of Full Professor for this position requires an international reputation as an independent Investigator in the field of cardiovascular medicine and a significant record of published research in peer-reviewed journals. Applicants should have attained experience in attracting extramural funding on a competitive basis.

The incumbent will have overall responsibility for the academic and clinical activities of the Division of Cardiology, Department of Medicine, Rhode Island Hospital, The Miriam Hospital, and Brown University School of Medicine. He or she will show a record of achievement in leadership in an academic environment requiring administrative, fiscal, and management skills as well as demonstrated accomplishment in scholarship, teaching, and clinical service.

Interested candidates should send a curriculum vitae to: David O. Williams, M.D., Chairperson, Division of Cardiology, Rhode Island Hospital, 593 Eddy Street, Providence, RI 02903 no later than six weeks after appearance of this advertisement. Screening of applicants will begin at that time and continue until a candidate is selected or the search is closed. *Lifespan Academic Medical Center is an Equal Employment Opportunity/Affirmative Action Employer and actively solicits applications from women, minorities, and protected groups.*

TENURE-TRACK POSITIONS NEUROSCIENCE CASE WESTERN RESERVE UNIVERSITY

As part of a new phase of growth, the Department of Neurosciences at Case Western Reserve University School of Medicine invites applications for the first two of six new tenure-track positions. These positions are designed to be filled at the **ASSISTANT PROFESSOR** level, but exceptionally qualified candidates for other levels will be considered. While all areas will be considered, including molecular/genetic, cellular, and systems, we are especially interested in areas that are complementary to existing strengths in developmental and molecular neuroscience. The department is housed in contiguous, newly renovated space, and provides state-of-the-art facilities and ample opportunity for interaction with the 14 primary faculty members, as well as with secondary faculty in adjacent departments, including genetics, pediatrics, physiology and biophysics, and molecular biology and microbiology. Generous start-up funds are available. Candidates should possess a Ph.D./M.D. degree, and have several years of postdoctoral experience. They will be expected to develop a successful, funded research program and participate in medical and graduate teaching. Evaluation of applications will begin on April 15, 1999, and continue until both positions are filled. Please submit a curriculum vitae, a summary of research interests, and the names of three references to: Dr. Lynn Landmesser, Chair, Department of Neurosciences, Case Western Reserve University School of Medicine, 10900 Euclid Avenue, Cleveland, OH 44106-4975. *Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR of genetics, University of Washington. The Department of Genetics seeks a tenure-track faculty member whose research emphasizes computational analysis of sequence data to generate and test biological hypotheses related to gene structure, function, inheritance, or evolution. The candidate will be expected to develop an active research program and contribute to undergraduate and graduate teaching. Excellent opportunities exist within the University for collaborative research. Send curriculum vitae, description of research interests, and names of three references to: Search Committee, Department of Genetics, University of Washington, Box 357360, Seattle, WA 98195-7360. Priority will be given to applications received before April 1, 1999. [Website: http://depts.washington.edu/genetics](http://depts.washington.edu/genetics). *The University is an Equal Opportunity Employer.*

NINDS at the Cutting Edge of Neuroscience

This is an extraordinary time in the field of neuroscience, when fundamental discoveries are being made at a breathtaking pace, and their application to neurological disorders is proceeding at an accelerating rate. To meet the challenge of new findings and to further enhance the pace of discovery and translation of fundamental discoveries to useful therapies, the National Institute of Neurological Disorders and Stroke (NINDS) has embarked on an ambitious planning and recruitment process. We seek excellent scientists and physicians to serve as program directors in the planning, administration, and evaluation of the research supported by our Institute.

The mission of the NINDS is to reduce the burden of neurological disorders by conducting and supporting research on the normal and diseased nervous system. To achieve this mission, we seek critical, resourceful, and imaginative scientists, especially those who offer expertise in one or more of the following areas: Neurogenetics; Development, Plasticity, and Regeneration; Neurodegeneration; Channels, Synapses, and Circuits; Systems Neuroscience, including Cognition and Behavior; Non-neuronal cells of the nervous system, and Immune and Inflammatory Processes; and Experimental Therapeutics and Clinical Trials.

Successful candidates will join a highly interactive group of scientists and clinicians directing research programs in all areas of modern neuroscience and neurological disorders. Program directors will be at the cutting edge of neuroscience as they plan and implement research programs through active communication with the extramural professional and lay communities, as well as with program directors in other institutes and agencies.

Applicants should have a Ph.D. and/or M.D. in a relevant field of biomedical or behavioral science. For more information, the full announcement can be obtained by fax (call 1-800-728-5627 and request document # 5001) or from the NINDS web site (<http://www.ninds.nih.gov/hrb/Joblist.htm>). U.S. citizenship is required.

Submit a letter of career interests with your curriculum vitae, bibliography, and response to our KSAs (knowledge, skills, and abilities as described in the full announcement) to: Mr. Luis Arvelo
National Institutes of Health
NINDS Human Resources Branch
Building 31, Room 8A23
31 Center Drive, MSC 2540
Bethesda, MD 20892-2540
or you may fax your application to (301) 480-0383.

Applicants are **strongly** encouraged to obtain information concerning application procedures by contacting Mr. Arvelo at (301) 435-6033. For information on qualification requirements and clarification of duties, contact: Dr. Constance W. Atwell at (301) 496-9248 or e-mail her at ca23c@nih.gov.

This position may be filled with a career appointment or various temporary appointment mechanisms (minimum of 2 years). The normal salary range for these positions is \$48,796 to \$89,142; actual salary will be commensurate with experience. An additional salary adjustment of up to 25% may be paid as a recruitment bonus or relocation allowance. In addition, physicians may be eligible for a Physician's Comparability Allowance.

Applications must be submitted by April 30, 1999. Refer to vacancy announcement # NS 99-01.

The Institute has a strong commitment to the diversity of its workforce and a biomedical research environment that reflects the diversity of the American population (www.ninds.nih.gov/eeo/). Therefore, the Institute is keenly interested in receiving applications from women, minorities, and individuals with disabilities. The NIH is an equal employment opportunity employer.



Postdoctoral Position Developmental and Molecular Biology

A postdoctoral position is available to work in pancreas development. Our research is mainly focused in the identification of mechanisms that govern the differentiation of insulin-producing (β) cells, and the role that homeobox-containing genes play in such process [Nature 386, 399 (1997)]. Approaches to investigate these problems include the analysis of transgenic and knock-out mice, and the manipulation of embryonic pancreatic explants *in vitro*. The position is ideal for someone with a biological background and laboratory experience, who has recently obtained a Ph.D. and/or M.D. and seeks to pursue training in developmental biology. Candidates with a strong background in molecular biology or mouse embryology should send their C.V. and the names of three references to:

Dr. Beatriz Sosa-Pineda
Department of Genetics
St. Jude Children's Research Hospital
332 North Lauderdale
Memphis, TN 38105
USA

BIOTECHNOLOGY

SCIENTIST

Gelatin Formulation

Located in the San Francisco Bay Area, **FibroGen, Inc.** is a privately held biotechnology company that is utilizing our expertise in extracellular matrix biology to discover and develop innovative treatments for fibroproliferative disorders (i.e. deep organ fibrosis & complications arising from surgical scarring), and novel therapeutics related to tissue repair & regeneration. We are also the world leader in the development & production of human recombinant collagen & recombinant gelatin for use in the medical device, pharmaceutical and fine chemical markets. Our continued growth & success has created an excellent opportunity for an experienced, hands-on Scientist to join our expanding interdisciplinary R&D team.

In this pivotal role, you will carry out experiments designed to prove the feasibility of producing gelatin from rhC, as well as experiments designed to develop an efficient & scalable method for the direct extraction of gelatin from yeast containing rhC. You will also develop assays suitable for the analysis of this material, and attend meetings with partners. Ideal candidates will possess a Ph.D. in pharmacy, pharmaceutical sciences, chemistry, or chemical engineering; 5 years of biopharmaceutical industry experience in formulations, analytical methods development, process sciences, and scale up; working knowledge of protein purification methodologies; familiarity with protein analytical techniques; and excellent interpersonal & written/verbal communication skills. Collagen experience & knowledge of gelatin production/science are preferred.

In addition to attractive compensation & benefits and generous equity participation, we will reward you with the challenge & excitement of a promising young startup, and a collaborative, first class research environment. To apply, please send your CV to:

FibroGen, Inc.
HR Department
Attn: Job# S0312-S
225 Gateway Blvd.
South San Francisco, CA 94080
Fax: (650) 866-7204

www.fibrogen.com

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POSITIONS OPEN

ASSISTANT PROFESSOR CHEMISTRY DEPARTMENT

East Stroudsburg University of Pennsylvania

Applications are invited for a new tenure-track faculty position beginning in fall 1999 to contribute to the existing biochemistry/chemistry degree programs. Ph.D. in biochemistry or chemistry and experience in recombinant DNA techniques and physical analysis of biomolecules required at the time of application. The successful candidate will have shown evidence of potential for excellence in both undergraduate instruction and research with undergraduates. Responsibilities: teaching general education, introductory, and advanced lecture and laboratory chemistry courses, and developing an undergraduate research program that enhances the activities of an 11-person ACS-accredited department. The Department has a well-equipped biochemistry laboratory and instrument rooms. Final determination will depend on a successful interview, which may include a teaching demonstration. Candidate will submit a letter of application, curriculum vitae, one-page statement of teaching philosophy, brief description of research plans, three confidential letters of recommendation, and undergraduate and graduate transcripts, by April 2, 1999, to: Dr. Diane W. Husic, Search Committee, Department of Chemistry, East Stroudsburg University, East Stroudsburg, PA 18301-2999.

ESU is an Equal Opportunity Employer. Minorities and women are strongly encouraged to apply.

SENIOR OPENING IN MARINE/AQUATIC BIOLOGY AT FLORIDA ATLANTIC UNIVERSITY

ASSOCIATE or FULL PROFESSOR position in marine/aquatic biology is available in the Division of Science at Florida Atlantic University's Davie Campus. We seek an individual deeply committed to both research and teaching whose particular area of expertise includes freshwater, marine, or estuarine systems. The successful candidate will be expected to contribute to upper-level undergraduate and graduate biology programs allied to the area of specialization, to actively participate in and enhance collaborative projects at the local, state, and federal levels, and to continue to maintain a dynamic extramurally supported research program. The ideal individual will have an exemplary publication record, evidence of sustained funding, and a strong commitment to undergraduate research and education. Preference will be given to individuals whose research provides an ecosystem perspective. The position starts August 1999. Interested scientists should submit a letter of application, curriculum vitae, three (3) letters of recommendation, and five (5) representative publications to: Dr. Michael R. J. Forstner, Search Committee Chair, Division of Science, Florida Atlantic University, 2912 College Avenue, Davie, FL 33314 by March 15, 1999.

Florida Atlantic University is an Equal Opportunity/Affirmative Action Institution.

ASSISTANT PROFESSOR. Conservation biology. The Department of Biology at Saint Louis University, a Catholic Jesuit institution dedicated to education, research, and health care invites applications for a tenure-track Assistant Professor position from individuals with a Ph.D., postdoctoral experience, and research productivity in areas supportive of a program in conservation biology. The candidate is expected to develop a funded research program, teach undergraduate biology courses, and contribute teaching and research expertise in the Department's Graduate Program in Ecology, Evolution, and Systematics. The Biology Department has two field stations to support this position. Applicants should submit statement of teaching and research goals, representative reprints, curriculum vitae, and three letters of recommendation to: Robert D. Aldridge, Ph.D., Department of Biology, Saint Louis University, 3507 Laclede Avenue, St. Louis, MO 63103-2010. E-mail: biology@slu.edu. Deadline is April 10, 1999. Saint Louis University is an Affirmative Action/Equal Opportunity Employer.

Biology. Centenary College seeks an **ASSISTANT PROFESSOR** for a tenure-track position to teach freshman-level cell biology and develop upper-level courses in areas of expertise. Candidates should have the Ph.D. and send a curriculum vitae, statement of teaching philosophy and research interests, official transcripts, sample publications, and three to five letters of recommendation to: Office of the Provost, Centenary College, Shreveport, LA 71134. The position will remain open until filled. Centenary is an Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR NUTRITIONAL BIOCHEMISTRY College of Agriculture and Life Sciences North Carolina State University

The Department of Poultry Science at North Carolina State University invites applications for a 90 percent research, 10 percent teaching, tenure-track position in the area of nutritional biochemistry—muscle development and metabolism. We are seeking an individual with a Doctoral degree and excellent background in nutrition, biochemistry, or a related field, who is interested in working in the area of poultry nutrition as it relates to muscle development or muscle metabolism. Postdoctoral experience and training in biotechnology methodologies are required, along with a demonstrated ability to design and carry research through to publication in recognized journals. Must be willing to work closely with other faculty on multidisciplinary research programs. The successful candidate will be responsible for teaching one semester-long graduate-level course each year, and will be expected to serve as a mentor for nutrition graduate students. The full job description can be found on the World Wide Web at website: <http://quigley.ag.uiuc.edu/~gregm/psa/psaplacement.html>.

Applicants should submit a brief summary of career goals, a curriculum vitae, all college transcripts, and the names and addresses of three references to: Gerald B. Havenstein, Head, North Carolina State University, Department of Poultry Science, Box 7608, Raleigh, NC 27695.

Application deadline: May 15, 1999, or until filled.

North Carolina State University is an Equal Opportunity Employer and operates under Affirmative Action policy. Individuals with disability desiring accommodation in the application process should contact the above Department Representative.

BOSTON UNIVERSITY SCHOOL OF MEDICINE

The Department of Pharmacology of Boston University School of Medicine is seeking candidates for a faculty position. Applications are invited from accomplished scientists in fields broadly related to the pharmacological sciences. Start-up funds, core facilities, and laboratory space are available to establish a state-of-the-art research program. It is anticipated that the appointment will be at the **ASSOCIATE or FULL PROFESSOR** level, but candidates at the **ASSISTANT PROFESSOR** level with demonstrated ability to obtain research funding are encouraged to apply. Please send curriculum vitae, a brief statement of research plans, and the names and telephone numbers of at least three references to: Dr. David H. Farb, Department of Pharmacology, Boston University School of Medicine, 80 East Concord Street, Boston, MA 02118. Equal Opportunity/Affirmative Action Employer.

IMMUNOLOGY—MICROBIOLOGY CARLETON COLLEGE

Applications are invited for a **TEMPORARY APPOINTMENT** in the Department of Biology, for the academic year starting 1 September 1999. Teaching responsibilities include majors' lecture/laboratory courses in immunology and in microbiology, and a junior/senior seminar. Ph.D. preferred; ABD considered. Send application, curriculum vitae, undergraduate and graduate transcripts, a statement of teaching philosophy, a summary of research, and three letters of reference to: Mark McKone, Department of Biology, Carleton College, Northfield, MN 55057-4025. Applications are due by 16 April 1999. Carleton College is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are strongly encouraged to apply.

ASSISTANT or ASSOCIATE PROFESSOR of bioengineering, Penn State. Applications are invited from individuals with a Ph.D. in all disciplines related to bioengineering for a tenure-track position that will expand the direction of teaching and research beginning with the 1999–2000 academic year. Preference will be given to researchers with an interest in biomolecular transport processes of all types at the cellular and/or tissue level. A strong background in the life sciences is desired as well as postdoctoral experience. Send curriculum vitae, statement of objectives, and names of three references by May 1, 1999, to: Dr. Herbert H. Lipowsky, Chairman, Bioengineering Program, Box S-SCI, The Pennsylvania State University, 233 Hollowell Building, University Park, PA 16802. Penn State is committed to Affirmative Action/Equal Opportunity and the diversity of its work force.

POSITIONS OPEN

ASSISTANT PROFESSOR OF BIOLOGY

The Program in Biology in the School of Natural and Applied Sciences seeks applicants for a broadly trained Cell/Developmental Biologist for a tenure-track Assistant Professor of biology position to begin in August 1999. Applicants must have a Ph.D. in biology or a closely related area, a strong commitment to teaching at the undergraduate and graduate level, and plans to develop an active research program. Teaching responsibilities will include genetics, cell biology, and developmental biology courses that may be scheduled for evenings and/or Saturdays. The position also involves development of graduate courses and supervision of undergraduates and graduates in laboratory research. Special consideration will be given to candidates with postdoctoral training and at least one year of teaching experience. Final determination will require an on-campus interview and include a research presentation. Send a letter of application, curriculum vitae, three letters of reference, and a statement of teaching and research philosophy to: Chair, Biology Faculty Search Committee, Office of the Dean, School of Natural and Applied Sciences, University of Houston—Clear Lake, UHCL Box 415, 2700 Bay Area Boulevard, Houston, TX 77058. UHCL is an upper-level university. The biology program offers B.S., B.A., and M.S. degrees. Review of applications will begin early April 1999.

UHCL is an Affirmative Action/Equal Opportunity Employer. The university hires only individuals authorized to work in the United States and does not observe hiring practices that will result in the displacement of qualified U.S. citizens or permanent residents. We reserve the right to extend searches or not fill positions.

Biological sciences. The Biological Sciences Department at DePauw University invites applications for three full-time positions: a one-year term, a two-year term, and a three-year term. These positions will be at the **ASSISTANT PROFESSOR** level and will begin in the fall of 1999. Successful applicants will participate in teaching introductory courses and upper-level courses in microbiology, immunology, animal physiology, cell biology, genetics, or evolution. The ability to involve undergraduates in research is desirable and support for research may be available. Applicants must have a Ph.D. Submit curriculum vitae, three letters of recommendation, graduate and undergraduate transcripts, and a statement of teaching philosophy, and research interests to: Search Committee, Department of Biological Sciences, DePauw University, Greencastle, IN 46135. Review of application materials will begin March 19, 1999, and continue until the positions are filled. DePauw University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

Nutrition/epidemiology/social marketing faculty position. Full-time adjunct faculty position at the **ASSISTANT or ASSOCIATE ADJUNCT PROFESSOR** level. Applicants must possess a Doctoral degree in nutrition, epidemiology, behavioral science, communications, public health, medicine, or a related field. Experience in intervention/health promotion programs and research related to public health nutrition and behavioral interventions is required. Responsibilities include developing a leadership role in the Center for Advanced Studies in Nutrition and Social Marketing, development of an independent research program, and teaching. Send curriculum vitae and the names of five references to: Mary Haan, Dr.P.H., Department of Epidemiology and Preventive Medicine, TB-168, One Shields Avenue, University of California, Davis, CA 95616-8638. The position will be open until filled but not later than December 31, 1999. The University of California is an Equal Opportunity/Affirmative Action Employer.

CHIEF OF THE DIVISION OF CARDIOLOGY

The Department of Medicine at Columbia University College of Physicians and Surgeons seeks a distinguished academic leader for the position of Chief of the Division of Cardiology at the Professor level. The individual selected for this position may either be a laboratory Investigator with a commitment to research at the molecular level or a clinical Investigator with broad leadership skills and a commitment to integrate a program of strong basic research and clinical excellence. Responses should be addressed to: Alan R. Tall, M.D., Search Committee, Department of Medicine, Columbia University, College of Physicians and Surgeons, 630 West 168th Street, New York, NY 10032. We take Affirmative Action toward Equal Employment Opportunity.

Advertisement for Tenure Track Position

The Laboratory of Immune Cell Biology (LICB) in the Division of Basic Sciences (DBS), National Cancer Institute (NCI), National Institutes of Health (NIH), is recruiting for a tenure track scientist to establish an independent research program in the area of molecular immunology and cell biology. The Laboratory has an active research environment and includes groups currently focusing on the molecular mechanisms of apoptosis, T cell signaling and development, and the process and consequences of ubiquitination. Extensive collaborative possibilities exist both within and outside the Laboratory at NIH. Applicants should have an M.D., M.D./Ph.D., or Ph.D. and strong research credentials with a substantial number of quality, peer-reviewed published reports and invited presentations at national and international conferences. Applications must include CV and bibliography, letter of interest stating research goals, a two-page outline of proposed research, and three letters of reference. The completed application should be mailed to: **Ms. Carolyn Darden, Building 10, Room 1B40, 31 Center Drive, MSC 1152, Bethesda, MD 20892-2440** or faxed to **301-480-1550** and received by July 1, 1999.

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Located in the San Francisco Bay Area--close to Stanford University and near scores of biotechnology companies--Roche Bioscience offers competitive salaries and a full benefits package, which includes incentive bonuses, relocation assistance, 401(k) and pension plans. To explore our opportunities firsthand, send your resume to: Roche Bioscience, 3401 Hillview Avenue, A2-HR, Job Code: SCI0312-LV, Palo Alto, CA 94304. Fax 650-424-8159. As an equal opportunity employer, we are committed to workforce diversity.

Visit our website for more information at www.roche.com/bioscience

POSTDOCTORAL OPPORTUNITIES THE ECOSYSTEMS CENTER MARINE BIOLOGICAL LABORATORY

Five (5) Postdoctoral Scientist positions are available this spring to work on research at the Plum Island Estuary Long-Term Ecological Research (LTER) site. The five research areas are:

- 1) Estuarine biogeochemistry – To conduct research on nitrogen cycling in estuaries by using a ^{15}N whole system tracer experiment. Expertise in phytoplankton and inorganic and organic N transformations preferred (reference: PDS cycling).
- 2) Estuarine food webs – To determine the processing of ^{15}N tracer added in a whole system tracer experiment by estuarine organisms. Expertise in organismal biology, benthic ecology or fishes preferred (reference: PDS cycling).
- 3) Estuarine microbial ecology – To conduct research on the controls of microbial food web structure as well as examining the sources and fates of organic matter. Expertise in microbial ecology, molecular techniques, isotope geochemistry and biomarkers is preferred (reference: PDS PIELTER).
- 4) Watershed biogeochemistry – To conduct research on nitrogen cycling and transport in watersheds. Expertise in riparian, fluvial, hyporheic or in-stream processing appropriate (reference: PDS Plum Island).
- 5) Watershed hydrology – To conduct research to develop and link hydrologic and nutrient processing models of upland runoff and stream transport. Expertise in GIS, hydrodynamic modeling and hydrology is desirable (reference: PDS Plum Island).

For complete position descriptions, visit our website at <http://www.mbl.edu/cgi-bin/nethr?index>.

Applicants should submit curriculum vitae, transcripts, name, address, telephone number and email address (if available) of three (3) references to: **Marine Biological Resources, 7 MBL Street, ATTN: Human Resources (please use reference), Woods Hole, MA 02543; telephone: (508) 289-7422; email: resume@mbi.edu**

An Equal Opportunity/Affirmative Action/Non-smoking Workplace

RESEARCH FELLOW POSITIONS IN MOLECULAR BIOLOGY

Laboratory of Biological Chemistry,
National Institute on Aging,
National Institutes of Health

Several Research Fellow positions are available immediately in the Laboratory of Biological Chemistry, at the National Institute on Aging, for highly motivated individuals interested in joining an expanding program devoted to the study of molecular and cellular responses to stress in mammalian cells and tissues. A wide variety of stress paradigms are under study including genotoxic agents, oxidant injury, heat and ER stress. Specific project areas for which candidates are sought include:

- **Signal-transduction mechanisms involved in regulating the response and influencing cell survival.**
- **Change(s) in stress responsiveness with differentiation and/or aging in *in vitro* (cellular senescence) and *in vivo* model systems.**
- **cDNA microarray or SAGE analysis to identify novel mediators of the stress response.**

Candidates must have a Ph.D./M.D. degree, strong background in molecular and/or cell biology, and demonstrated record of productivity. Individuals with experience in microarray technology and related computer skills are highly desirable. Position and salary commensurate with qualifications and experience. Contact:

Nikki J. Holbrook
Laboratory of Biological Chemistry,
Box 12, Gerontology Research Center,
5600 Nathan Shock Dr., NIA, National Institutes of Health,
Baltimore, MD 21224-6825; or
nikki-holbrook@nih.gov; or (410) 558-8446

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POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR of biochemistry and molecular biology. The Department of Biochemistry and Molecular Biology of the James H. Quillen College of Medicine, East Tennessee State University (ETSU), seeks a new faculty member. The appointment will preferably be at the Assistant Professor level, although exceptional individuals will be considered for appointment as Associate Professor. The position is tenure-track and comes with a competitive salary, laboratory space, and start-up package. The successful candidate must hold a Doctoral degree (Ph.D. and/or M.D.) and provide evidence of highly productive prior research experience. An important area for research development, in the department, is vascular molecular biology. Applicants who are specifically working in the area of atherosclerosis will be given preference. However, individuals who are currently working on basic aspects of cellular signaling mechanisms, or regulation of gene expression, and are interested in developing collaborative studies of atherosclerosis also will be considered. The location of the James H. Quillen College of Medicine is Johnson City, Tennessee, a pleasant community situated between the Blue Ridge and Great Smoky Mountains. The region offers numerous opportunities for outdoor recreation. Review of applications will begin on April 1, 1999, and will continue until the position is filled. Send a description of current research, representative reprints of published work, a curriculum vitae, and names and addresses of three references to: **Dr. Michael Sinensky, Chair, Biochemistry and Molecular Biology, East Tennessee State University, Box 70581, Johnson City, TN 37614-0581.** ETSU is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

The Department of Biopharmaceutical Sciences, in conjunction with the Program in Human Genetics, invites applications for a tenure-track position at the **ASSISTANT or ASSOCIATE PROFESSOR** level in the field of pharmacogenomics, beginning fall 1999. Individuals working in genetics or genomics and with an interest in using genetic methods to study pharmacologic problems will be considered. Applicants should have a Ph.D., M.D., or advanced degree and will be expected to establish a dynamic research program and be a top-quality teacher in graduate and professional school courses. Send a curriculum vitae, three letters of reference, a summary of current research, and a concise outline of future research by April 15, 1999, to:

**Pharmacogenomics Search Committee
School of Pharmacy
Department of Biopharmaceutical Sciences
Box 0446
University of California
San Francisco, CA 94143-0446**

UCSF is an Affirmative Action/Equal Opportunity Employer. The University undertakes Affirmative Action to assure Equal Employment Opportunity for underutilized minorities and women, for persons with disability, and for Vietnam-era veterans and special disabled veterans.

PLANT MOLECULAR GENETICIST. Valparaiso University invites applications for an **ASSISTANT PROFESSOR** tenure-track position beginning August 1999. Ph.D., dedication to excellence in undergraduate teaching, and willingness to work in a scholarly community committed to Lutheran higher education are imperative. Candidate will teach courses in introductory biology genetics, and field of specialization and supervise undergraduate research. Send curriculum vitae, statement of teaching and research interests, transcripts, outline for an introductory genetics course, and three letters of recommendation to: **Dr. Gene Evans, Chair, Biology Department, Valparaiso University, Valparaiso, IN 46383-6493** by April 12, 1999. Affirmative Action/Equal Opportunity Employer.

PH.D. PROGRAM IN EXPERIMENTAL PATHOLOGY

Molecular and cellular pathogenesis of cardiovascular disease, hypertension, chronic infectious disease, cancer, environmental pathology. Interdisciplinary faculty. Competitive admissions process. Accepted applicants receive full stipends and tuition waivers. Attractive campus in suburban Westchester close to New York City. More information? Contact: **Dr. Henry P. Godfrey, Program Director, Department of Pathology, New York Medical College, Valhalla, NY 10595-1690.** Telephone: 914-594-4146; e-mail: hgodfrey@nysm.edu; website: www.nysm.edu/bms/exp_path.htm. Equal Opportunity Employer.

POSITIONS OPEN

DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS CASE WESTERN RESERVE UNIVERSITY School of Medicine

The Department of Physiology and Biophysics at Case Western Reserve University invites applications for positions at the level of **ASSISTANT PROFESSOR** (tenure-track). We seek candidates who could develop a strong and independent research program in membrane ion channel regulation and who will augment the Department and the School's existing prominence in this area. The Department maintains an interactive collegial environment, top national ranking for research, and a large and competitive graduate program. We offer an excellent compensation package, state-of-the-art research facilities, a stimulating intellectual environment, as well as ample start-up funds provided by the Research Resources Program of the Howard Hughes Medical Institute. Candidates should submit a curriculum vitae, statement of research interests, three representative reprints, and the names and addresses of four references to: **Dr. Toni Scarpa, Department of Physiology and Biophysics, 10900 Euclid Avenue, Cleveland, OH 44106-4970.** Website: <http://physiology.cwru.edu>. An Affirmative Action/Equal Opportunity Employer.

Biology Department at James Madison University. Two, one-year-term (renewable to three years) **ASSISTANT PROFESSOR** positions. Require a strong commitment to teaching and general education. Start September 1999. Ph.D. required. Previous teaching experience desired. Salaries are competitive. Applicants having expertise in any one of the following disciplines will be considered: cell biology/genetics, human physiology, human anatomy. Opportunities for collaborative research are available, but not required. Information about the university and department is at website: <http://www.jmu.edu/biology/>. Submit letter of application, curriculum vitae, statement of teaching philosophy, and three letters of recommendation to: **Dr. Douglas Dennis, Department of Biology, James Madison University, Harrisonburg, VA 22807.** Applications should be received by April 12, 1999, to assure full consideration. James Madison University is an Equal Opportunity/Affirmative Action/Equal Access Employer and especially encourages applications from minorities, women, and persons with disability.

The Biology Department of Vassar College seeks a one-year **VISITING ASSISTANT PROFESSOR**. The successful candidate must be able to teach evolution, ecology, and genetics at the introductory biology level and either genetics or developmental biology at the intermediate level. Ph.D. or ABD required, teaching experience desirable. This is a wonderful opportunity for those considering a career at an undergraduate liberal arts college or who would like to explore the possibilities of such a career. Applications accepted until position filled. Send curriculum vitae and three letters of recommendation to: **Leathem Mehaffey, Chair of Biology, 124 Raymond Avenue Box 731, Poughkeepsie, NY 12604-0731.** E-mail: mehaffey@vassar.vassar.edu. For further information consult our website: <http://depts.vassar.edu/biology/~biology.html>. Vassar College is an Affirmative Action/Equal Opportunity Employer.

TENURE-TRACK POSITION LABORATORY OF CLINICAL INVESTIGATION

The NIA's Laboratory of Clinical Investigation is searching for a tenure-track Investigator with a Ph.D. and/or M.D. with postdoctoral training in the area of molecular biology linked to cardiac function. Evidence of ability to develop an independent research program required. In addition, candidates should possess good interpersonal skills. Applicants should submit a curriculum vitae, bibliography, a detailed statement of research interests, selected publications, and three letters of recommendation. This information should be sent to: **Ms. Teri Niebuhr, Personnel Office, 5600 Nathan Shock Drive, Baltimore, MD 21224.** Applications to be postmarked by April 12, 1999.

NIA is an Equal Employment Opportunity Employer.

POSITIONS OPEN

CHIEF SCIENTIST AND TECHNICAL DIRECTOR DUGWAY PROVING GROUND

Dugway Proving Ground is seeking a highly qualified scientist to serve a senior executive role as Technical Director and Chief Scientist. The Chief Scientist reports directly to the Commander and directs the technical aspects of Dugway's important test missions in chemical/biological warfare defense, smoke and obscurant evaluation, and Dugway's rapidly increasing role in counterterrorism. The Technical Director is expected to interact with numerous federal agency officials at the executive level. He/she serves as the strategic planner and technical authority for the proving ground. The technical staff of Dugway numbers almost 300 and the annual test budget is in excess of \$40 million. The position requires strong and proven technical and management skills. A Ph.D. degree in chemistry, microbiology, or a related field is required. A knowledge of the Department of Defense acquisition system is also critical. The position is civil service career at the GS-15 level.

Dugway Proving Ground is located approximately 80 miles from Salt Lake City in Utah. The proving ground is almost 800,000 acres in size and has a physical plant valued at over \$500 million. Dugway plays an important role in the process used by the Department of Defense to develop and field equipment and procedures for protecting U.S. service men and women from chemical or biological attack. Dugway provides similar assistance in the area of counterterrorism and consequence management for the civilian sector. This latter role is expected to rise dramatically in the next few years, offering opportunities to lead in a growth period. Dugway is physically remote, but entirely self-sufficient as regards housing and community needs. Nevertheless, many of its work force choose to commute from outside communities. Utah is rich in outdoor recreation opportunities and Salt Lake City is cosmopolitan, with many cultural activities. Dugway prides itself on service and professionalism.

Applicants may read a full position description on the World Wide Web at website: www.usajobs.opm.gov or may contact: **Minerva Barnes, Telephone: 435-831-2337** for further information.

ASSISTANT CURATOR

Assistant Curator to assist Co-chair of Editorial Committee to administer long-term Flora of China special botanical research publication project. Coordinate Chinese Researchers, monitor timely manuscript preparation and editing process with Chinese and non-Chinese editorial centers. Contact Chinese research centers to arrange collection loans. Solicit support for project travel. Engage in plant taxonomy research and update Chinese taxonomic literature. Develop and manage bilingual computer database ("Chinese/English/Latin") for plant names, and prepare Chinese Pinyin and Latin indices for Flora of China project. Reading and writing fluency in Chinese and English. Ph.D. in Biology. 40 hours per week, \$27,800.00 per year. Send résumé to: **Mrs. J. Gaston, Division of Employment Security, 13131 New Halls Ferry Road, Florissant, MO 63033.** Refer to Job Number 137123.

Major national patent law firm located in New York City seeks highly qualified **PH.D. SCIENTISTS** in biomedical and molecular biology fields interested in second career opportunities in intellectual property law. Demonstrated technical writing skills essential. Competitive salaries and benefits, and opportunities for challenging assignments. Send résumé to:

**Box 74
Science
1200 New York Avenue N.W.
Washington, DC 20005**

Minorities/Females/Veterans/Disabled. Equal Employment Opportunity.

TECHNICIAN/RESEARCH ASSOCIATE POSITION MOLECULAR HEMATOLOGY Washington University School of Medicine

Position available to study the molecular basis of bone marrow failure (website: <http://dbbs.wustl.edu/rib/bessler.html>). Experience in bone marrow culture required. Send curriculum vitae and three references to: **M. Bessler, M.D., Ph.D., e-mail: mbessler@im.wustl.edu; FAX: 314-362-8826.**

An Equal Opportunity/Affirmative Action Employer.



TANABE RESEARCH Laboratories, USA, Inc.

Tanabe Research Laboratories USA, Inc. (TRL) operates a state-of-the-art, award winning research facility in San Diego. It is a subsidiary of Tanabe Seiyaku, Osaka, Japan dedicated to medicinal chemistry focused drug discovery.

New Target Intelligence Director

TRL is seeking an experienced scientist with a strong background in preclinical research and business development to head a new department in New Target Intelligence. The qualified individual will interface with academic institutions in the United States and Europe to identify novel technologies for in-house implementation. This individual will also be responsible for due diligence of such technologies as well as facilitate their in-house implementation. Additionally, the successful candidate will assist in the organization of in-house programs, analyze their competitive position, and issues surrounding their clinical development and market potential. This position interfaces with Tanabe Seiyaku's Research Information Department for knowledge transfer.

The qualified candidate should have background experience in medicinal chemistry or pharmacology in a mainstream pharmaceutical company. Additionally, a Ph.D. degree is required with a broad working knowledge in drug discovery and an interest in exploiting that knowledge to seek new technology. (Attn: Dr. Lazarides)

Ph.D. Synthetic Organic/Medicinal Chemists

The candidate should have 1-2 years experience post Ph.D. in synthetic organic/medicinal chemistry. The candidate will be part of a multidisciplinary team focused on the discovery of new small molecule drugs for inflammatory diseases. The position requires an outstanding ability to design and conduct multi-step synthesis of target molecules. Experience in medicinal chemistry, structure based drug design or modeling is a plus and excellent written and oral communication skills are a must.

BS/MS Synthetic Organic Chemists

TRL is seeking a BS or MS chemist in organic chemistry with strong demonstrated skill in multi-step synthesis of heterocyclic targets, chromatographic purification techniques and spectroscopy. The successful candidate will have excellent organizational, analytical and problem solving skills and the ability to cooperate with peers in a team environment.

Senior Scientist, Molecular Pharmacology

An innovative research scientist is needed to design, develop, and manage a range of assays in molecular pharmacology. The successful candidate will have appropriate quantitative skills to rigorously analyze a wide range of drug or protein receptor interactions plus computer programming expertise to provide data management methods to support these screens.

A Ph.D. in biochemistry/molecular pharmacology is preferred with experience in one or more of the following: quantitative analyses of receptor/ligand interactions relevant to different cell signaling mechanisms, enzyme kinetics, and mechanisms. Additionally, 5 years industrial experience or equivalent are required in invention, design, and implementation of novel, high-throughput screening assays to identify potential new leads in diverse small molecule libraries. The individual will be experienced in evaluating novel technologies and in converting assays to robotic format, as well as familiarity with state-of-the-art detection methods and analytical instrumentation used in these screens. Strong interpersonal and communication skills are necessary to function effectively as part of a highly interactive and creative team of biologists and chemists

TRL has a highly motivated scientific team that provides an intellectually stimulating and challenging work environment. We offer highly competitive salaries, performance-based bonuses and an outstanding benefits package that includes medical/dental/life/disability insurance and a company-matched 401(k) plan. If you are interested in joining TRL please submit your resume and references to Human Resources (291), TRL, 4540 Towne Centre Court, San Diego, CA 92121; fax (619) 558-0650; email lsmith@trlusa.com

Yeast Molecular Biologist

Henkel Corporation announces an opportunity for a highly motivated, hands-on molecular biologist to join a dynamic industrial research team utilizing bioconversion to produce chemical intermediates.

Henkel

Chemicals Group

For additional information about Henkel Corp., view our Web site at: www.henkelcorp.com

You will be involved in metabolic pathway engineering of a yeast biocatalyst and are expected to have outstanding proficiency in "state-of-the-art" molecular biology techniques. Eligible candidates should possess a Doctorate in Molecular Biology/Biochemistry with emphasis in yeast physiology/genetics and with at least two years of postdoctoral experience. A thorough understanding of yeast physiology and genetics, with an emphasis on control of gene expression, is needed. Experience with industrial yeast strains is a significant plus.

Henkel is a world specialist in applied chemistry and a global leader in the production of oleochemicals, adhesives, and surface technologies and one of Europe's major producers of detergents, fabric softeners, and household cleaning products. We offer a competitive salary, comprehensive benefits and the opportunity for personal and professional growth. Applicants should send a detailed resume (no phone calls) to:

HENKEL CORPORATION
Rita Bollini • Job# 98-176
P.O. Box 191 • Kankakee, IL 60901
Fax 815-939-6061
E-mail rita.bollini@henkel-americas.com
Equal Opportunity Employer - m/f/d/v

At Wyeth-Lederle Vaccines and Pediatrics, a member of the Wyeth-Ayerst family, we're pioneering the design, manufacture, and marketing of vaccines that are changing lives — right now!

SENIOR RESEARCH SCIENTIST SEROLOGIC ASSAY DEVELOPMENT

You will provide technical expertise and productivity at the laboratory bench when developing or improving bioassays and immunoassays that support evaluation of human clinical trials of newly developed vaccines. Emphasis will be on developing standard and novel bioassays and ELISA procedures that measure host responses to bacterial infections. Position requires strong skills in bacteriology and immunology. Newly developed or improved assays will undergo rigorous validation and final reports will be suitable for Regulatory, Clinical Research, or Business Development needs. Position will be responsible for developing assays according to critical timelines and successfully transferring the technology to routine testing laboratories. You will have key interactions with various project teams and R&D departments and some travel will be required.

The ideal candidate will have experience in developing and performing bioassays and immunoassays that measure human responses to bacterial diseases. Additional requirements include performing laboratory research in the field of microbiological diseases, excellent technical competence in performing and supervising laboratory research, excellent oral and written communication skills and knowledge in laboratory data management and statistical analysis as well as knowledge and experience with GLP/GMP. A Ph.D. in Life Science (microbiology or immunology preferred) with minimum 2 years' post doctoral related experience.

At Wyeth-Lederle you'll enjoy a professional atmosphere and the kind of salary and benefits package you would expect from an industry leader. Please send your resume to: **Human Resources Department, Wyeth-Lederle Vaccines and Pediatrics, 211 Bailey Road, West Henrietta, NY 14586-9728.** An Equal Opportunity Employer.



**Wyeth-Lederle Vaccines
and Pediatrics**
Protecting Families
Through Immunization®

POSITIONS OPEN

Two **POSTDOCTORAL POSITIONS** are available in a multidisciplinary research program in reproductive biology in the Departments of Obstetrics/Gynecology and Cell Biology and Biochemistry at the Texas Tech University Health Sciences Center (TTUHSC) in Lubbock, Texas.

Positions are available in projects involving molecular aspects of sperm maturation and male factor infertility (**Dr. Gail Cornwall** and **Dr. Daniel Hardy**); biochemical and molecular aspects of luteal phase deficit (**Dr. Sam Prien**); cell cycle regulatory genes in cancers of the reproductive system (**Dr. Stuart Ravnik**); and the regulation of Leydig cell function by macrophage secreted products (**Dr. James Hutson**); *in vitro* maturation of preantral follicles (**Dr. Vaughan Lee**).

This program is designed to develop, within two years, new and independent Investigators in the field of reproductive biology. In addition to research experience that will make the successful candidates competitive for research funding and academic appointments, Fellows will have the opportunity to learn clinical laboratory techniques in a setting that will facilitate possible licensure as a Clinical Laboratory Director under federal CLIA guidelines.

Qualifications: candidates must have either an M.D. or Ph.D., advanced expertise in molecular biology, good track records, a strong interest in an academic career, U.S. citizenship or permanent U.S. residency. Please send a letter of interest and a curriculum vitae to either: **Dr. Kathy B. Porter, Department of Obstetrics/Gynecology**, or **Dr. Harry M. Weitlauf, Department of Cell Biology and Biochemistry, Texas Tech University Health Sciences Center, Lubbock, TX 79430. TTUHSC is an Equal Opportunity Employer.**

MOLECULAR NEUROBIOLOGIST

A Molecular Neurobiologist, academic rank dependent upon qualifications, is sought to serve as **ASSOCIATE DIRECTOR** for Research and **PROGRAM DIRECTOR** in Molecular Neurobiology, in the Center for Neurovirology and Neurodegenerative Disorders (CNND). The CNND is one of three newly established centers of excellence within the College of Medicine at the University of Nebraska Medical Center and consists of basic, translational, and clinical research activities in Alzheimer's disease, HIV-1-associated dementia, and multiple sclerosis. Ongoing research programs in neural electrophysiology, cellular neuroimmunology, neuropharmacology, gene discovery, and biochemistry have been established in the Center. A generous starting package is available. The faculty appointment is through the Department of Pathology and Microbiology. Please send curriculum vitae and three letters of recommendation to: **Dr. Samuel M. Cohen, Chair, Department of Pathology and Microbiology**, and **Dr. Howard E. Gendelman, Director, Center for Neurovirology and Neurodegenerative Disorders, University of Nebraska Medical Center, Omaha, NE 68198-3135.**

University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer. Minorities and women are encouraged to apply.

BASIC SCIENTIST DIVISION OF SURGICAL SCIENCES

The Albert Einstein College of Medicine and its University Hospital, Montefiore Medical Center, have begun a process of recruitment of several Basic Scientists to a newly formed Division of Surgical Sciences and Translational Research. In this interdisciplinary effort, joint appointments with a clinical department (Surgery) and one of the basic science departments (depending on the Investigator's primary area of work) will enable stimulation of translational research. While not exclusive, the broad areas targeted include molecular biology, genetics, cell biology, and immunology.

Generous research funds and recruitment package from the Medical School/Medical Center, especially for Investigators with peer-reviewed funding.

Please send curriculum vitae to: **T. S. Ravikumar, M.D., Chairman, Department of Surgery, Albert Einstein College of Medicine, Surgeon-in-Chief, Montefiore Medical Center, 3400 Bainbridge Avenue, 4th Floor, Bronx, NY 10467-2490. FAX: 718-798-1883; e-mail: travikum@montefiore.org.**

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POSITIONS OPEN

GeneSoft, Inc.

GeneSoft Inc. is a dynamic young biotechnology company dedicated to the development of novel drugs for the treatment of human diseases. GeneSoft's technology platform is based on a proprietary class of small molecules that specifically bind DNA and thereby selectively interfere with gene expression.

Currently, we have two highly attractive openings:

PH.D. MICROBIOLOGIST

To qualify, the ideal candidate must have a Ph.D. with four or more years of academic or industrial postdoctoral training in microbiology of infectious diseases, and must have a demonstrated level of accomplishment as evidenced by publications. This position requires an in-depth knowledge of genes and pathways essential for the replication and virulence of Gram positive organisms, expertise in assay development for screening of novel antimicrobial compounds, and experience with animal models for infectious diseases. The successful candidate will establish and develop our antimicrobial program aiming at the discovery of a new class of antibiotics.

PH.D. MEDICINAL CHEMIST

The ideal candidate is a creative Medicinal Chemist with a Ph.D. in synthetic chemistry, postdoctoral studies at the interface of chemistry and biology, and with at least three years of experience in lead optimization within the pharmaceutical industry. A basic understanding of ADME, CAME, QSAR/QSPR, and exposure to combinatorial and multiparallel synthesis is considered an asset.

The successful candidates are enthusiastic, active experimentalists with dedication to quality and application orientation of science. Excellent communication skills and the ability to work in an interactive multidisciplinary environment are essential.

GeneSoft offers competitive salaries and benefits including an attractive equity participation in a growing company and 401k. Please forward your detailed résumé with a cover letter to:

**GeneSoft Inc.
Human Resources
Two Corporate Drive South
San Francisco, CA 94080**

If you are interested in joining our interdisciplinary team of highly motivated, future-oriented scientists dedicated to the application of our technology, consider GeneSoft Inc. as an Equal Opportunity Employer.

FIELD STATION DIRECTOR

Hiram College seeks applications for Director of the James H. Barrow Field Station (FS), which is associated with the Department of Biology. The FS encompasses 260 acres (about half in forest preserve and half as former farm land), two ponds, and facilities for teaching, research, and group meetings. Candidates need expertise in environmental science, conservation biology, or related field(s), teaching experience, and familiarity with field station operations. Ph.D. preferred (M.S. candidates considered). Duties: manage facilities and budget; develop academic program; facilitate student and faculty work in courses, research, and outreach education; foster interdisciplinary activities of other faculty; teach one or two courses (e.g., environmental education, environmental monitoring, GIS, conservation biology); initiate collaborative research involving undergraduates and faculty at FS; submit proposals to fund academic programs; and oversee management of captive animal collections. This is a full-time, 12-month, professional staff position. Hiram College is a small, selective undergraduate liberal arts college in rural northeast Ohio, about 45 minutes from Cleveland, Akron, and Youngstown. Send curriculum vitae, statement of philosophy on teaching and research (including a vision for the role of a field station in undergraduate research), and three letters of reference to: **Matthew H. Hils, Department of Biology, Hiram College, P.O. Box 67, Hiram, OH 44234.** Review of applications will begin April 5, 1999, and continue until the position is filled. Position begins July 1, 1999. Website: <http://www.hiram.edu>.

Hiram College is an Equal Opportunity Employer committed to excellence through diversity.

POSITIONS OPEN

COLLECTION SCIENTIST MALARIA

The American Type Culture Collection, serving as one of the world's largest and diverse repositories of biological materials, is seeking a highly qualified individual to function as **TECHNICAL MANAGER** of the malaria repository. Candidate will be responsible for the development and maintenance of a collection relevant to a broad aspect of malaria research, including managing the reagent collection, characterization, production, preservation, and distribution. Incumbent will also write standard operating protocols, develop and submit grants and contract proposals, provide scientific expertise to internal/external customers, and supervise and train collection support staff. Candidates with Ph.D. or equivalent in parasitology discipline are encouraged to apply. Excellent communications skills are required. Competitive salary and comprehensive benefits package offered. Interested candidates should submit letter of interest and résumé, including salary history, to:

**American Type Culture Collection
Attn: Human Resources/MAL
10801 University Boulevard
Manassas, VA 20110
FAX: 703-365-2735**

Visit our website: www.atcc.org.

Equal Opportunity Employer/Minorities/Females/Disabled/Veterans.

ASSISTANT RESEARCH SCIENTIST DEPARTMENT OF ANATOMY AND CELL BIOLOGY

The University of Iowa College of Medicine

In the laboratory of **Dr. Jackie Bickenbach** to design and conduct experiments to characterize mammalian epithelial stem cells in skin and oral mucosa: to determine cell cycle regulatory mechanisms in isolated epithelial stem cells; to identify markers and/or signals that differentiate epithelial stem cells from transit-amplifying basal cells. Requires a Ph.D. in a biological science or equivalent. Basic skills: experience in designing and implementing experiments to characterize epithelial stem cells; primary epithelial cell culture; Northern, Southern, and Westerns; writing papers and grant proposals; presenting seminars. Desirable skills: cell cycle analysis, including identifying and isolating cyclins, cdk's, and inhibitors; kinase assays; immunoprecipitation; experience with differential display and/or gene chip technology, or signal transduction.

Please submit cover letter and résumé to: **Mr. George McHenry, Administrative Associate, Department of Anatomy and Cell Biology, The University of Iowa College of Medicine, 1-100C BSB, Iowa City, IA 52242-1109.**

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

Research and development **INTERNATIONAL TECHNOLOGIST II** (cigar blends). Develop cigarette and fine-cut blends, with a focus on the Canadian and other strategic Virginia blend markets (Africa, Far East, and Middle East). Provide input/approval for Canadian and offshore Virginia tobacco purchases, and assist in the establishment of global leaf specifications. Maintain and develop Canadian cigar blends. Ensure adherence to leaf and blend specifications. Requirements: High school diploma plus two years of experience in job offered or in research and development of cigar blend tobacco products. Salary range: \$47,000 to \$55,900 per year, 37.5 hours per week, Monday-Friday, 8:00 a.m. to 4:30 p.m. Submit résumé to: **R. J. Reynolds Tobacco Company, Susan Clapp, Department NL, P.O. Box 1487, Winston-Salem, NC 27102-1487.**

RESEARCH FELLOW/ASSOCIATE

M.D.-Ph.D. scientists are invited to apply for a Senior Postdoctoral Research Fellow/Associate position (Instructor) to study tel gene. Candidates should have expertise in cell and molecular biology, including protein biochemistry, and prior record of research accomplishments in molecular biology (preferably in the area of hematopoiesis and leukemia). Send curriculum vitae and three letters of recommendations to: **Stuart H. Orkin, M.D., Division of Hematology, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115.**

Tenure-track Virologist/Molecular Biologist

The Gene Therapy and Therapeutics Branch of the National Institute of Dental and Craniofacial Research, NIH, is seeking to recruit an individual for a tenure-track, Principal Investigator position. The successful candidate should have doctoral level training, as well as post-doctoral experience, in virology and/or eukaryotic molecular biology. This individual is expected to mount an independent research program complementary to existing branch programs directed at clinical gene transfer to salivary glands (e.g. see PNAS 94:3268,1997; Gene Therapy 5:537,1998). The successful candidate will be provided resources including technical support and the opportunity to recruit and train postdoctoral fellows. Interested individuals should send a cover letter, a summary of general research goals, curriculum vitae, bibliography, and 3 letters of reference to Ms. Judith Dulovich; National Institutes of Health; NIDCR/Personnel; Bldg. 31, Rm. 2C39, MSC-2290; Bethesda, MD 20892. Applications will be accepted through April 1, 1999.

The National Institutes of Health is an Equal Opportunity Employer.

Tenure Track Position at NIH

The Laboratory of Biochemistry and Genetics of the National Institute of Diabetes, Digestive and Kidney Diseases (Reed Wickner, Chief) invites applications for a tenure-track position. The position will be the equivalent in status to an Assistant Professor, although there are no courses to teach or grants to write. We seek outstanding applicants interested in developing independent studies of problems of their choosing, using genetics combined with other methods. Preference will be given to those using a lower eukaryotic system appropriate to solving the problem posed. Candidates should have established strong research credentials with a substantial record of quality publications. A two-page statement of research interests and goals, CV, bibliography and three letters of recommendation should be mailed directly to:

LBG Search Committee
Lab of Biochem. & Genetics, NIDDK
Bldg. 8, Room 225, N.I.H.
8 Center Dr MSC0830
Bethesda, MD 20892-0830

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ANNOUNCEMENT

DOES THIS SOUND LIKE YOU OR SOMEONE YOU KNOW?

"I suffered ridicule as I worked long hours in the lab in high school and college, and frank outrage when I received a grant to study bacterial genetics during my summers in college."

"I have long been interested in science, and in helping people. During my training, I had a number of clinical experiences which convinced me that I wanted to specialize in immunology at the bench, but still have patient contact."

"I was always tinkering with my toys, taking them apart, trying to fit the square peg in the round hole. NIH is the only place to be for cutting-edge training, creativity, and pure excitement."

These are statements excerpted from applications recently submitted to the NIH LOAN REPAYMENT PROGRAM. NIH, the world's leading biomedical research and research training facility, has trained thousands in areas such as neuroscience, pathology, immunology, molecular genetics, developmental biology, cell biology, molecular biology, virology, and structural biology, to name only a sampling of areas in our intramural research program.

NIH Loan Repayment Benefits of \$35,000 Per Year

Have your interests always been to pursue medical research? Do the realities of staggering educational debt appear to prevent you from realizing your dreams? NIH offers a variety of clinical and basic science postdoctoral training fellowships that can be combined with educational loan repayment incentives. You owe it to yourself to know about these programs (or share the information with someone in need!) as you make your career decisions. You owe it to yourself to learn more about what NIH can do for you.



For more information on Loan Repayment Programs and postdoctoral training programs, visit our websites at:

<http://www.training.nih.gov> and
<http://lrp.info.nih.gov>



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Marketing Manager



Diagnostics

Who we are

At Roche Diagnostics, the world's leading diagnostics company, we continuously strive to delight customers with quality innovative systems, products and services for the research, diagnostics and patient care markets. There are no limits to innovation at Roche Diagnostics. We are a global company whose objective is achieved through the efforts of qualified people. Individuals with competitive spirit and commitment to Roche and its customers will be rewarded by challenging personal development opportunities.

The position

You will be an integral member of the Roche Molecular Biochemicals team located in **Berkeley, CA**. Your responsibility for a product segment within the RMB will encompass complete product life cycle management on a global basis. We will additionally rely on you to plan, evaluate, provide development and launch support, and implement global marketing initiatives in accordance with planned business objectives.

Who you are

...an articulate professional with a bachelor's degree, or preferably a master's, or Ph.D., in Life Sciences, Biology or Biochemistry and at least 3-4 years or related experience. Working knowledge of the New Product Commercialization process is necessary. Impressive business acumen, excellent analytical and written and verbal communication skills, as well as strong interpersonal, persuasion and negotiation skills are essential. The ideal candidate will be well established in the Life Sciences/Research community and have field experience. If selected, you will initially live in Indianapolis for a period of training of approximately 3-4 months.

Who to contact

We offer an excellent compensation and benefits program, including 401(k). Qualified candidates should send a resume, including salary requirements, to: **Roche Diagnostics, Attn: Marketing Manager-480573, 9115 Hague Road, Indianapolis, IN 46250** or e-mail to **Roche@webhire.com**. Principals only please. Roche is committed to providing equal opportunity to a diverse workforce.

www.roche.com

POSITIONS OPEN

POSITION IN ONCOLOGY RESEARCH 4.7 T MRI/MRS AT Roswell Park Cancer Institute Corporation

The new Pre-Clinical MRI Imaging at Roswell Park Cancer Institute (RPCI) features a state-of-the-art wide-bore 4.7 Bruker MRI scanner and supporting resources for small animal research. Opportunities exist for collaborative research with members in oncology. Candidates should be experienced with multinuclear *in vivo* magnetic resonance imaging and spectroscopy techniques with a focus on functional MR (fMR) imaging tumors. Successful candidates should possess a minimum of a M.S. degree, preferably a Ph.D., with a strong background in animal surgical techniques, MR pulse programming, image processing/signal, networking, data analysis, and display 4.7 system maintenance. Entry-level appointment is available immediately; competitive salary and benefits commensurate with experience. To apply send curriculum vitae, three references, and a brief statement of interest to:

Charles Siewert
Human Resources Department
Roswell Park Cancer Institute Corporation
Elm and Carlton Streets
Buffalo, NY 14263

Roswell Park is a Minorities/Females/Disabled/Veterans Affirmative Action Employer.

ASSISTANT or ASSOCIATE DIRECTOR of Mississippi-Alabama Sea Grant Consortium (MASGC), and **ASSISTANT or ASSOCIATE DIRECTOR** for Alabama Programs, MASGC. MASGC is eight Carnegie level I and II universities dedicated to research, education, and outreach that foster the conservation and sustainable development of marine resources in Mississippi and Alabama. Successful applicants will be experienced in administration, be active scholars who can obtain an academic appointment at a member institution, and obtain support from extramural sources (see job descriptions at [website: http://www.masgc.org](http://www.masgc.org)). Ph.D. in a field of marine science, administrative experience, and an outstanding research and grants record. Send a letter of intent, complete curriculum vitae with lists of publications and grants obtained, names and addresses of three references with telephones, e-mails to: **Personnel, GCRL, P.O. Box 7000, Ocean Springs, MS 39566-7000**. Application closing date 30 April 1999. Proper documentation is required at time of employment. *Affirmative Action/Equal Opportunity Employer/ADA.*

PSYCHIATRIST with research interests in psychiatric neuroimaging. The Department of Psychiatry at the University of Wisconsin-Madison is actively building in the area of psychiatric neuroimaging and affective neuroscience. We seek an M.D. or M.D.-Ph.D. with research interests in functional neuroimaging to work in our new W. M. Keck Laboratory for Functional Brain Imaging and Behavior, a new facility with PET and 3T MRI dedicated to affective and cognitive neuroscience and psychiatric neuroimaging research. Please send curriculum vitae along with a statement of research interest to: **Richard J. Davidson, Laboratory for Affective Neuroscience, Department of Psychology, University of Wisconsin, 1202 West Johnson Street, Madison, WI 53706**. Unless confidentiality is requested in writing, information regarding applicants must be released upon request. Finalists cannot be guaranteed confidentiality. *The University of Wisconsin-Madison is an Equal Opportunity/Affirmative Action Employer and especially encourages women and minorities to apply.*

ASSAY VALIDATION SPECIALIST

The John Wayne Cancer Institute has an excellent opportunity for a self-motivated team player to develop/validate assays for GMP/GLP and prepare documentation/reports. You will write SOP, identify and source key materials/reagents, as well as define acceptance criteria for reagent lots and qualification procedures. Requires an adept communicator with an M.S. or Ph.D. in biological sciences and two to four years of experience in a biomedical research laboratory, ideally in an industrial situation. You must be a flexible, PC-literate individual with the ability to develop an understanding of federal and other regulations.

We offer a competitive salary and comprehensive benefits package. Please forward résumé to: **The John Wayne Cancer Institute, Human Resources Center, Department YA, 2200 Santa Monica Boulevard, Santa Monica, CA 90404**. FAX: 310-449-5251. *An Equal Opportunity Employer.*

POSITIONS OPEN

JOHNS HOPKINS UNIVERSITY

JOHNS HOPKINS MEDCAST BUREAU CHIEF

This is a unique Editorial position that requires someone with both a science background and science journalism experience. The Johns Hopkins Medcast Bureau Chief is responsible for creating, gathering, writing, editing, and sourcing content for Medcast Networks, an interactive computer-based information service for Physicians. The ideal candidate will have five years of experience in biomedical science reporting, demonstrable editing/writing capabilities, experience in editing materials for a Physician audience, management skills in facilitating information flow. The person sought should also have an advanced degree in the life sciences and an ability to interact professionally with research and clinical faculty.

Please send a résumé, contact information for three references, and a brief cover letter expressing interest and salary requirements to: **Jaymie Hornberger, Johns Hopkins University, School of Medicine, P.O. Box 2454, Baltimore, MD 21205**. Website: www.jhu.edu. *Affirmative Action/Equal Opportunity Employer/Disabled/Veterans.*

COLLABORATIVE RESEARCH POSITION

A position is available immediately for a Collaborative Research Scientist in the Regulation of Gene Expression Section, Laboratory of Molecular and Developmental Biology in the National Eye Institute, National Institutes of Health, Bethesda, Maryland. This position involves collaborative experimentation on the various projects within the laboratory, including study of signal transduction and role of transcription factors interaction in the regulation of gene expression in the ocular lens. The chosen individual will have a major role in maintaining research continuity within the laboratory, will have the possibility to attend scientific meetings and training courses to keep abreast of latest scientific developments. *The applicant must be a U.S. citizen or permanent resident, and have a Ph.D. degree and previous experience in molecular biology, cell biology, tissue culture, biochemistry, and knowledge of computers and sophisticated scientific equipment usage.* Salary ranges from \$58,027 to \$89,142 depending upon previous experience and education. Please send curriculum vitae, bibliography, and names of three references to: **Dr. Ana B. Chepelinsky, Laboratory of Molecular and Developmental Biology, NEI, NIH, 6 Center Drive—MSC 2730, Building 6, Room 211, Bethesda, MD 20892-2730**. FAX: 301-480-7933; e-mail: abc@helix.nih.gov. *NIH is an Equal Opportunity Employer.*

SENIOR HIV INVESTIGATOR and HEAD of AIDS Research Center at Case Western Reserve University (CWRU) School of Medicine. Significant institutional resources will be made available to support this position. CWRU is the site of a NIH-funded Center for AIDS Research, AIDS Clinical Trials Unit, and other AIDS research activities supported by more than \$12 million per year in extramural research funding. The candidate must have a national reputation for his/her original research program and must be adept at developing and promoting multidisciplinary interactions and projects. Interested candidates should send a curriculum vitae and the names of three references to:

Michael Lederman, M.D.
Professor of Medicine
AIDS Center Search Committee
Case Western Reserve University
University Hospitals of Cleveland
Division of Infectious Diseases
11100 Euclid Avenue
Cleveland, OH 44106-5083

RESEARCH ASSOCIATE. A position is available to study the molecular and electrophysiologic characteristics of nutrient transport by hepatocytes. A strong background in the biochemistry or molecular biology of membrane transport is required with preference to individuals with experience in transcriptional regulation, gene knock-out animals, or cell volume studies. Send curriculum vitae along with the names, addresses, and telephone numbers of three references to: **Mark Mailliard, M.D., Section of Gastroenterology (111G), Omaha VA Medical Center, 4101 Woolworth Avenue, Omaha, NE 68105**. *The University of Nebraska Medical Center is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSITIONS OPEN

ENVIRONMENTAL TOXICOLOGIST. The College of Staten Island, City University of New York (CUNY), invites applications for an anticipated tenure-track position as **ASSISTANT or ASSOCIATE PROFESSOR** to begin September 1999. The successful candidate is expected to carry out externally funded research involving graduate and undergraduate students, and teach courses at the graduate level in environmental science and at the undergraduate level in his/her area of expertise. Appointment shall be in department most suited to expertise (biology, chemistry, computer science, engineering, mathematics). Research interests should be in detecting and quantifying presence of environmental contaminants, investigating their chemically induced molecular-to-organismic-level toxicological effects, and assessing their health risk. Experience in environmental sample collection, chemical analysis with GC/MS and/or AAS, data validation, statistical analysis, or systems modeling beneficial. Required: Ph.D. in relevant discipline, commitment to teaching and research, publication, and grants sufficient for recommendation for appointment to the CUNY Doctoral program faculty. To qualify for appointment at the Associate rank, the applicant must have a substantial record of research and external funding. Review of applications will begin May 17, 1999, and continue until the position is filled. Send curriculum vitae, research plans, teaching experience and interests, and names, addresses, and telephone numbers of three references to: **Dr. John R. Oppenheimer, Chair, Environmental Science Interdisciplinary Search Committee, Center for Environmental Science, College of Staten Island/City University of New York, 2800 Victory Boulevard, Staten Island, NY 10314**.

Equal Employment Opportunity/Affirmative Action/ADA Employer.

Research and development **INTERNATIONAL TECHNOLOGIST** (Virginia blends). Maintain continuity and uniformity of existing cigarette and fine-cut blends, with a focus on the Canadian and other strategic Virginia blend markets. Maintain and develop bill of material structures required for the company's materials resource planning system. Provide input into the replacement of the materials resource planning system by a global product specifications system. Once the global product specifications system is in place, maintain the tobacco segment of the system for Canadian and other original blends. Participate in activities of Canadian industry and government agronomy agencies, and coordinate development work originating from those agencies. Liaise with other departments to ensure adherence to leaf and blend specifications. Requirements: High school diploma plus two years of experience in job offered or in research and development of Virginia blend tobacco products. Salary range \$47,000 to \$55,900 per year, 37.5 hours per week, Monday-Friday, 8:00 a.m. to 4:30 p.m. Submit résumés to: **R. J. Reynolds Tobacco Company, Susan Clapp, Department NL, P.O. Box 1487, Winston-Salem, NC 27102-1487**.

POSTDOCTORAL POSITION IN HUMAN DNA REPAIR

A Postdoctoral position is available immediately to study excision repair in humans and the biochemical mechanism of DNA damage checkpoint response. Experience in molecular biology or enzyme purification is required.

Please send curriculum vitae and references to:

Dr. Aziz Sancar
Department of Biochemistry and Biophysics
CB#7260

University of North Carolina School of Medicine
Chapel Hill, NC 27599
Telephone: 919-962-0115
FAX: 919-966-2852

RESEARCH ASSOCIATE position is available for a researcher interested in developing biologically based risk models of radiation carcinogenesis. The candidate will spend 75 percent time on topics within the general realm of low-dose and low-dose rate risk assessment and 25 percent time will be focused on biological models of radiation leukemogenesis. Candidates should have a background in statistics, radiation biology, and/or hematology. Send curriculum vitae and the names and telephone numbers of three references to: **Dr. David G. Hoel, Department of Biometry and Epidemiology, Medical University of South Carolina, 135 Rutledge Avenue, Charleston, SC 29425**. FAX: 843-876-1126. *Medical University of South Carolina is an Equal Opportunity/Affirmative Action Employer.*

Research Faculty Openings

**Vascular Cell & Molecular Biology
Immunology/Inflammation
Hematopoiesis/Stem Cell Technology**

Blood Research Institute **THE BLOOD CENTER** Global In Reach, Local In Care

The Blood Research Institute of The Blood Center of Southeastern Wisconsin is undergoing major expansion of its research efforts, and is seeking qualified research faculty at all levels in the areas of (1) Vascular Cell and Molecular Biology (2) Immunology/Inflammation, and (3) Stem Cell Biology/ Hematopoiesis.

Located adjacent to the Medical College of Wisconsin (MCW) on the campus of the Milwaukee Regional Medical Center, the 50,000 sq. ft. Blood Research Institute provides state-of-the-art facilities and offers an excellent environment for scientific interaction and interdisciplinary collaboration.

Successful junior candidates will have a Ph.D. or M.D. degree, or both, 2-4 years of postdoctoral experience, and a very strong publication record. More established candidates will have a demonstrated track record of scholarly contributions to the scientific literature and a history of continuous grant funding. In all cases, ample laboratory and office space, as well as start-up funds will be provided. Faculty are expected to develop and maintain sufficient extramural grant support to fund the majority of their research program, and to secure a faculty appointment within one of the basic or clinical Departments at MCW.

For further information, please send your CV, a letter detailing your specific training and research interests, and the names and addresses of three references to:

John W. Adamson, M.D.
Blood Research Institute
c/o Dept. of Human Resources
638 North 18th St.
Milwaukee, WI 53233-2121
<http://www.bloodctrwise.org>

*The Blood Center of Southeastern Wisconsin is an
Equal Opportunity/Affirmative Action Employer.
Women and minorities are encouraged to apply.*

DIGITAL GENE TECHNOLOGIES, INC.

Genomics is revolutionizing drug development, gene therapy, and our entire approach to healthcare and human medicine. Translating genomics-based discoveries into practical biomedical results presents the challenge of the decade. Digital Gene Technologies is expanding to meet this challenge.

DGT is a total gene expression company focusing on the exploitation of genomic bioinformatics through the application of patented technology that identifies and determines the concentration of nearly all of the genes active in a sample cell or tissue.

Associate Director, TOGA Technology

The Associate Director will manage the operation of DGT's TOGA gene expression technology. In this role, the individual will direct the activities of teams of robotics specialists and molecular biologists to deliver gene expression data for corporate, academic, and in-house projects. The individual will work closely with senior management to evaluate operations, review scientific data, and develop plans for technology innovation. The position will also require significant interaction with directors of bioinformatics, validation services, and gene discovery. We are seeking a highly motivated scientist with a Ph.D. in life sciences and 5+ yrs experience in industry. Strong management experience with a proven track record in molecular biology is required.

Senior Staff Scientist, TOGA Technology

The Senior Staff Scientist will be responsible for supervising the 1st stage of DGT's technology, which includes initiation of all commercial, academic and in-house projects following sample receipt. This molecular biology laboratory position requires management of a production team of scientists within DGT's TOGA technology department. An additional key function will be in the design and execution of experiments to characterize and implement improvements to the current technology. Expertise in cDNA library production, RNA isolation, cloning methods and PCR is essential. We are seeking a highly motivated individual with a Ph.D. in life sciences (molecular biology, genetics, microbiology, biochemistry) and 3-5 yrs of management experience in industry. Must possess a strong publication record and background in molecular biology and gene expression techniques.

Associate Director, TOGA Services

The Associate Director will manage operations for DGT's TOGA services department. This individual will be responsible for the output of production teams that generate data for all molecules identified for characterization by corporate, academic and in-house scientists following TOGA analysis. Core technologies within the department include DNA separation techniques, molecular cloning and robotic plasmid DNA purification protocols, high-throughput gene expression assays and DNA sequencing. We are seeking highly qualified candidates with a Ph.D. in life sciences and 5+ yrs management experience in industry. Technical expertise in molecular biology is required with significant experience in RNA methods, gene expression assays, DNA sequencing, and laboratory automation.

Staff Scientist, TOGA Services

The Staff Scientist will be responsible for development and implementation of new technologies to improve our production capabilities. The major tasks will be to design and execute experiments to assess new gene expression assays, molecular cloning methods and DNA separation systems. A Ph.D. in life sciences (molecular biology, biochemistry, biophysics, or microbiology) and 2+ yrs postdoctoral experience is required. Technical expertise in molecular cloning methods, PCR and hybridization-based gene expression assays, and nucleic acid electrophoresis and chromatography are essential.

Compensation will meet your qualifications and includes equity participation in an exciting growth company. For consideration, please send or fax your resume/CV, letters of reference and salary history to: **DIGITAL GENE TECHNOLOGIES, INC., 11149 North Torrey Pines Road, Suite 110, La Jolla, California 92037, fax: (619) 552-8625, www.dgt.com, EOE**



POSITIONS OPEN

GENETICIST/CURATOR POSITION. USDA, Agricultural Research Service, Crop Improvement and Utilization Research Unit, Albany, California, is seeking a Geneticist/Curator for a permanent position (GS-11/12, depending on experience; \$42,673 to \$66,488, plus benefits) in an agricultural genomics project concentrating on development of computer databases. Duties to include assembling and curating data on maps, ESTs, genes, traits, pathology, and germplasm. Databases are available via several formats, mainly by Internet access. Position involves data assembly, formatting, and analysis from sources including research laboratories and literature. Major role in interacting with users and data sources. Approximately 15 percent of time can involve laboratory aspects of cereal genomics. Experience is expected in biotechnological methods of genetics and molecular biology or plant breeding. Experience with computer databases, network access, and UNIX systems is a plus. For information, contact: Dr. Olin D. Anderson, WRRRC, ARS, USDA, 800 Buchanan Street, Albany, CA 94710. Telephone: 510-5659-5773; e-mail: oanderson@pw.usda.gov. Closing date for applications is April 5, 1999. Application information is available at website: <http://www.ars.usda.gov> under Announcement Number ARS-X9W-9166. Minorities are encouraged to apply. The USDA is an Equal Opportunity Provider and Employer.

RESEARCH VIROLOGIST

The United States Department of Agriculture (USDA), Agricultural Research Service (ARS), Clay Center, Nebraska is accepting applications for a permanent, full-time Research Virologist. The objective of this position will be to investigate virus-host interaction at mucosal surfaces to, and to develop and evaluate intervention and diagnostic strategies to be applied on a population basis. Highly desirable candidates will have a Ph.D. in virology or a related field, with an emphasis on molecular aspects of virulence, immunity, or other host-pathogen interactions. Experience and working knowledge of molecular biology, cell biology, and immunology is required. Applicants must be U.S. citizens. Salary range is \$47,891 to \$74,035. For a copy of Announcement Number ARS-D9W-9229 and an application package, please call: USDA, ARS, Human Resources Division, Telephone: 301-504-1484 or print it from the Internet at website: <http://www.ars.usda.gov>. Specific questions regarding the position may be directed to: Dr. William Laegreid, U.S. Meat Animal Research Center, Telephone: 402-762-4177; e-mail: laegreid@email.marc.usda.gov. All applications must be postmarked by April 26, 1999. USDA-ARS is an Equal Opportunity Provider Employer.

Two **POSTDOCTORAL POSITIONS** immediately available in a biotechnology industry-sponsored University laboratory to investigate a G-protein-linked inositol glycan signaling pathway involved in insulin action and insulin resistance. Training and experience in lipid biochemistry and/or enzymology and signaling molecular biology is preferred. Please send curriculum vitae and names of three references to:

Joseph Larner, M.D., Ph.D.
Department of Pharmacology
Room 6838, Old Medical School
University of Virginia, Health Science Center
Charlottesville, VA 22908

View website: www.insmed.com for more details.

POSTDOCTORAL POSITION available in our combinatorial phage display group to identify and examine prostate and/or breast cancer-specific peptides. Experience in molecular biology and biochemistry is required. Please send curriculum vitae and the names of three references to: Dr. Susan Deutscher and Dr. Thomas Quinn, M121 Medical Sciences Building, Department of Biochemistry, University of Missouri, Columbia, MO 65212. Applications from women and minorities are particularly encouraged. MU is an Equal Opportunity/Affirmative Action Employer.

SCIENCE WRITING INTERN

The American Society of Plant Physiologists (ASPP) seeks a science writing and publishing intern for a period of nine to 12 months to gain extensive hands-on experience in science writing, journal production, and scholarly publishing. ASPP publishes *Plant Physiology* and *THE PLANT CELL*.

See our website: <http://aspp.org/JOBS/fell.htm> for details. American Society of Plant Physiologists, 15501 Monona Drive, Rockville, MD 20855-2768. Deadline: April 30, 1999. Start date: September 1999.

POSITIONS OPEN

POSTDOCTORAL POSITION in cancer gene therapy is available immediately at Rutgers, The State University of New Jersey. Ph.D. in molecular biology or related area is required. Contact: K. Son, e-mail: kson@rci.rutgers.edu; FAX: 732-445-3134.

POSTDOCTORAL POSITION at the University of Washington available immediately for NIH-funded research in molecular mechanisms of nucleoside transport. Applicants must have a Ph.D. and experience in standard molecular biology techniques and in one or more of the following areas: yeast genetics, immunohistochemistry, and expression systems. Send curriculum vitae and three letters of reference by April 15, 1999, to: Dr. Unadkat, Department of Pharmaceutics, Box 357610, University of Washington, Seattle, WA 98195. E-mail: jash@u.washington.edu; FAX: 206-543-3204.

POSTDOCTORAL POSITION available immediately to study novel proteases required in the biosynthesis of active peptide hormones and neurotransmitters. Project focuses on multiple molecular cloning approaches to obtain the structural identities of novel prohormone processing proteases. Experience in molecular cloning (including lambda phage) and cellular gene expression is desirable. Send curriculum vitae, brief description of research experience, and three references to: Dr. Vivian Hook, University of California, San Diego, Department of Medicine, 9500 Gilman Drive #0822, La Jolla, CA 92093. E-mail: vhook@ucsd.edu.

POSTDOCTORAL POSITIONS VIRUS-HOST INTERACTIONS

Several Postdoctoral positions to study virus-host interactions in plants are available. This laboratory has developed a range of experimental tools with which to identify and isolate cellular genes that promote or restrict virus infection in *Arabidopsis*. Emphasis is being placed on novel antiviral pathways, activation and suppression of gene silencing responses to viruses, and genetic selections and screens for new classes of *Arabidopsis* susceptibility mutants (*Plant J.* 14:177, 1998; *Cell* 95:461, 1998; *PNAS* 96:772, 1999). Please send a curriculum vitae, statement of interests, and the names of three references by e-mail or FAX to: James C. Carrington, Institute of Biological Chemistry, Washington State University, Pullman, WA 99164. E-mail: carrington@wsu.edu; FAX: 509-335-2482; website: www.wsu.edu:8080/~ibc/faculty/jc.html. WSU is an Equal Employment Opportunity/Affirmative Action Employer. Protected group members encouraged to apply.

POSTDOCTORAL FELLOWSHIP positions are available within the Department of Microbiology and Immunology at the University of Oklahoma Health Sciences Center (OUHSC) in the area of Maternal-Fetal Immunology and HIV and AIDS research. Candidates must have a Ph.D., M.D., or D.Sc. degree with a background in cellular immunology, immunochemistry, or vaccine-related areas of research. Methods in molecular biology and knowledge of these techniques are desirable.

A curriculum vitae, a brief description of past research activities, a letter describing present research interests, and the names and addresses of three references should be sent to: Ronald C. Kennedy, Ph.D., Professor, Department of Microbiology and Immunology, The University of Oklahoma Health Sciences Center, 800 North Research Parkway, Suite 462, Oklahoma City, OK 73104. The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer. Applications from women and ethnic minorities are strongly encouraged.

POSTDOCTORAL POSITION available to study the mechanisms of apoptosis. Projects include activation of caspases; signaling pathways of death receptors such as FAS and TNFR1; and regulated apoptosis in gene therapy (see: *Cell* 89:1067; *Molecular Cell* 1:319; *Science* 281:1355; *Science* 281:1860). Applicants should have a strong background in molecular biology, biochemistry, or mouse/worm genetics. Please forward curriculum vitae and contact information of three references to: Xiaolu Yang, Ph.D., Institute for Human Gene Therapy, University of Pennsylvania, 413A SCL, 422 Curie Boulevard, Philadelphia, PA 19104-6100. FAX: 215-573-8606; e-mail: xyang@mail.med.upenn.edu.

POSITIONS OPEN

CALTECH POSTDOCTORAL SCHOLARS POSITIONS AT JET PROPULSION LABORATORY

The California Institute of Technology (Caltech) Postdoctoral Program at the Jet Propulsion Laboratory (JPL) is inviting applicants to apply for four positions in the Computer and Technology Research Section. Two of these research positions will involve the use and development of near-infrared and ultraviolet Raman spectrometer instrument prototypes to identify and quantify biomolecular analytes. One research position will entail the design, development, and testing of biosensor substrates designed to quantify analytes using surface-enhanced Raman Spectroscopy (SERS). One additional research position will be focused on the development of an instrument used to volumetrically image *in vivo* nerve regeneration. These instruments and sensors are being developed for a variety of applications in clinical medicine, *in situ* sensing, and molecular genetics.

Applicants should have a recent Ph.D. in biochemistry, chemistry, biology, physics, electrical engineering, biomedical engineering, or a related science or engineering field. Prior experience in chemometric analysis of mixture spectra, optical instrument design, and software development is highly desirable. Annual starting salary for a recent Ph.D. is approximately \$42,000. Postdoctoral Scholars positions are awarded initially for a one-year period. Appointments may be renewed in one-year increments for a maximum of two additional years.

Please send curriculum vitae, bibliography, statement of research interests, and a list of three references to:

Dr. James L. Lambert
Jet Propulsion Laboratory
4800 Oak Grove Drive
MS 300-123
Pasadena, CA 91109
Telephone: 818-354-4181
FAX: 818-393-3302
E-mail: lambert@retina.jpl.nasa.gov

The California Institute of Technology and the Jet Propulsion Laboratory are Equal Opportunity/Affirmative Action Employers. Women, minorities, veterans, and disabled persons are encouraged to apply.

The University of Chicago. **PRE- AND POSTDOCTORAL TRAINING** in neuropsychopharmacology for drug abuse research at the University of Chicago. Didactic training in neurobiology, physiology, pharmacology, behavioral and clinical psychopharmacology. Opportunities for research with either laboratory animals or humans. Research programs include developmental neurobiology of early drug exposure, neurotoxicity of psychostimulants, sensitization to psychostimulants, pain and analgesia, and human psychopharmacology. Applicants must be U.S. citizens or permanent residents. Write to: H. de Wit, Department of Psychiatry (MC 3077), The University of Chicago, 5841 South Maryland Avenue, Chicago, IL 60637. E-mail: hdev@midway.uchicago.edu. Minorities are encouraged to apply.

POSTDOCTORAL POSITION IN MOLECULAR NEUROBIOLOGY

A Postdoctoral position is available immediately to study signal phototransduction and processing in the SCN. Experience in mouse anatomy, *in situ* hybridization, immunohistochemistry, and molecular biology is required.

Please send curriculum vitae and references to:

Dr. Aziz Sancar
Department of Biochemistry and Biophysics
CB#7260
University of North Carolina School of Medicine
Chapel Hill, NC 27599
Telephone: 919-962-0115
FAX: 919-966-2852

ASSOCIATE RESEARCH SCIENTIST

Multi-institution project involving the identification of diabetes genes. Position requires Doctorate in computer science or medical informatics and experience developing software for simulations and sequence analysis.

Submit curriculum vitae and three references to: M. Prudden, Department of Pediatrics, Russ Berrie Medical Science Pavilion, 1150 St. Nicholas Avenue, New York, NY 10032. E-mail: mp250@columbia.edu.

Columbia University is an Equal Opportunity/Affirmative Action Employer. We are particularly interested in applications from women and members of minority groups.



NATIONAL INSTITUTES OF HEALTH
National Center for Research Resources
ASSOCIATE DIRECTOR FOR BIOMEDICAL TECHNOLOGY

The National Center for Research Resources invites applications for the position of Associate Director for Biomedical Technology (ADBT), NCRR, NIH. The ADBT is responsible for directing the Biomedical Technology area and developing and implementing plans to enable NCRR to enhance the effectiveness of the Center's programs in biotechnologies, while providing scientific leadership in the planning, formulation, program review, development and evaluation of all activities that are encompassed by this area, all of which impact the conduct of biomedical research at the National level. The ADBT integrates the programs into the NIH agenda and establishes priorities for using these programs to achieve NIH's and NCRR's long-range objectives.

Applicants must have a Doctor of Medicine or a Ph.D. in one of the health sciences or biomedical engineering (or equivalent combination of experience and training) plus senior level medical/biomedical research experience that demonstrates the following **mandatory qualifications**: (1) Knowledge and ability to lead a scientific program of national and international scope involving bioengineering and biotechnology. This includes managing a large, multi-disciplinary biotechnology research program as it relates to biomedical/ biobehavioral research or research administration related to diseases, disorders or conditions. (2) Demonstrated ability to provide leadership and broad vision to a large extramural research program with extensive managerial and executive level responsibilities (i.e., training, research resources, strategic planning, budgeting, and human resource management), in a diverse organization. (3) Knowledge and experience with state-of-the-art instrumentation and technologies and their potential application to biomedical research, and a scientific stature sufficient to lead this important area and advise the Director and senior executive staff within and outside the Center on issues affecting the Biomedical Technology program. This is a permanent full-time position with a salary range of \$110,351 to \$125,900 per annum commensurate with qualifications. Physicians may be eligible for a Physician Comparability Allowance ranging from \$5,000 to \$20,000 per year. A recruitment bonus of up to 25 % of base pay may be available to a non-federal selectee for this position. A relocation bonus of up to 25% of base pay (subject to approval) may be available to a permanent Federal employee who must relocate to accept this position. A one year probationary period must be served by the individual selected if not currently or previously in the Senior Executive Service.

Send applications to Ms. Pathenia Wiggins, National Institutes of Health, National Center for Research Resources (NCRR), 9000 Rockville Pike, Building 31, Room 3B43, Bethesda, MD 20892. For application forms and a copy of the requirements contact Ms. Wiggins at NCRR on (301) 496-1524. Deadline for applications is **April 5**.

Public Health Service Commissioned Officers interested in performing the duties of the position within the Commissioned Corps may submit a resume to the above address.

- Applicants with access to Internet's Worldwide Web may browse the NIH Home Page to view the full text vacancy announcement at <http://helix.nih.gov:8001/jobs/>
 - OPM now requires five executive core qualifications be met by individuals being recommended for appointment to the SES. Information about these qualifications can be requested from the NCRR Personnel Office or found on the Web at: <http://www.opm.gov/ses/html/ecq4.htm>
 - Applicants may browse the NCRR Home Page at <http://www.ncrr.nih.gov>
 - Applicants may e-mail materials to patw@ncrr.nih.gov
- NIH is an Equal Opportunity Employer**

**HELP SHAPE THE
FUTURE OF BASIC AND
CLINICAL NEUROSCIENCE**

The National Institute of Neurological Disorders and Stroke, NIH, is seeking a Scientific Review Administrator to select reviewers and conduct review meetings for research and training grants of particular relevance to the mission of NINDS. This is a GS 13/14 civil service position (salary range: \$58,027-\$93,233. Physicians may be eligible for a Physician's Comparability Allowance.). Applicants must have U.S. citizenship and a Ph.D. or M.D. (or equivalent). Applicants who have a broad knowledge of neuroscience and neurological disorders, as well as excellent administrative skills, are particularly sought.

Applicants should submit by **4/12/99** a letter of application (refer to vacancy #NS-99-14), a brief description of career interests, and a curriculum vitae and bibliography to: Mr. Luis Arvelo, NINDS Human Resources Branch, Building 31, Room 8A23, 31 Center Drive, MSC 2540, Bethesda, MD 20892-2540; FAX: (301) 480-0383; e-mail: la45j@nih.gov. Applicants are **strongly encouraged** to obtain specific information concerning the knowledge, skills and abilities needed for the position by contacting Mr. Arvelo at (301)435-6033.

For complete information regarding the vacancy, please see Web site <http://www.ninds.nih.gov/hrb/Joblist.htm>

**NIH IS AN EQUAL
OPPORTUNITY EMPLOYER**

**HARVARD MEDICAL SCHOOL-McLEAN HOSPITAL
ALCOHOL AND DRUG ABUSE RESEARCH CENTER**

Post-doctoral research training fellowships (National Research Service Awards from NIDA, NIH) will be available at the Alcohol and Drug Abuse Research Center and Harvard Medical School for the academic year beginning in July, 1999. The Alcohol and Drug Abuse Research Center is a multidisciplinary program that includes basic, preclinical, clinical and treatment-related research. The research program is especially concerned with drug abuse problems in women and the role of gender in the abuse-related, neuroendocrine and analgesic effects of drugs. Trainees may participate in research on the behavioral pharmacology of substance abuse; the neuroendocrine consequences of cocaine, heroin and alcohol abuse; the effects of drug abuse on the brain as assessed by brain imaging techniques (MRI, MRS and fMRS); evaluation of novel analgesics in models of thermal algesia and hyperalgesia and evaluation of the safety and effectiveness of new pharmacotherapies for the treatment of drug abuse. McLean Hospital is an affiliate of the Harvard Medical School and the Massachusetts General Hospital and is located in Belmont, MA, a suburb of Boston. Salary is commensurate with experience (PGY 1 to PGY 7).

Please send a *curriculum vitae*, reprints of some recent papers, a brief statement about your research interests and goals, and the names, addresses, telephone and fax numbers of three references to: **Jack H. Mendelson, Professor of Psychiatry (Neuroscience) and Dr. Nancy K. Mello, Professor of Psychology (Neuroscience), Co-Directors, Alcohol and Drug Abuse Research Center, McLean Hospital, 115 Mill Street, Belmont, MA 02478.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP IN MAMMALIAN DEVELOPMENT

A Postdoctoral position is immediately available in the Cancer and Developmental Biology (CDB) Laboratory, under the supervision of **Dr. Colin L. Stewart**, Director. Applications are sought from individuals interested in analyzing early mammalian development (using gene targeting techniques). Experience in the techniques of molecular biology and/or mammalian development would be an advantage. More information about the CDB Laboratory and its research programs may be found at their website: <http://nmrweb.ncifcrf.gov/abl/cdbl>.

The position is part of the Division of Basic Sciences of the National Cancer Institute and is located at the Frederick Cancer Research and Development Center in Frederick, Maryland. Salary range for this position is \$29,000 to \$36,000.

If interested, please send a cover letter and your curriculum vitae to: **Colin L. Stewart, Ph.D., Director, Cancer and Developmental Biology Laboratory, NCI-Frederick Cancer Research and Development Center, P.O. Box B, Building 539, Room 121, Frederick, MD 21702.**

The National Institutes of Health is an Equal Opportunity Employer and encourages all qualified women and minorities to apply. Selection for this position will be based solely on merit, with no discrimination for nonmerit reasons such as race, marital status, physical or mental disability, age, sexual orientation, or membership or nonmembership in an employee organization.

POSTDOCTORAL POSITION

Postdoctoral positions are available immediately to study the role of hedgehog signaling pathway in human basal cell carcinoma formation. The successful candidate should have expertise in molecular biology and some cell culture experience. Send curriculum vitae and names of three references to: **Anthony Oro, M.D., Ph.D., c/o Jackie Walker, Stanford University School of Medicine, 1201 Welch Road, Stanford, CA 94305-5486. FAX: 650-723-8762.** Please see the laboratory website: <http://cnmgm.stanford.edu/oro> for more information. Stanford University is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL FELLOWSHIP WASHINGTON UNIVERSITY SCHOOL OF MEDICINE

Position available immediately as part of an NIH Training Grant to study human molecular genetics. Emphasis will be on complex genetic traits and technology development. Ph.D. or M.D. required. Experience in molecular, biochemical, and computational techniques desirable. Applications to: **Pui-Yan Kwok, M.D., Ph.D., 660 South Euclid Avenue, Box 8123, St. Louis, MO 63110. E-mail: kwok@im.wustl.edu.** NIH Training Grant requires U.S. citizenship or permanent residency.

POSTDOCTORAL FELLOWSHIPS

Interdisciplinary research and development in biosensors and biomaterials in the Center for Bio/Molecular Science and Engineering. Two years starting at \$47,000 per year. Expertise in molecular biology, biochemistry, analytical and synthetic chemistry, or bioengineering preferred. Send curriculum vitae and telephone numbers of three references to: **Dr. Fran Ligler, Code 6900, Naval Research Laboratory, Washington, DC 20375-5348.** U.S. citizens and permanent residents only.

NRL is an Equal Opportunity Employer.

POSTDOCTORAL FELLOW position is available in the Feist-Weiller Cancer Center to study the role of leukemia fusion genes in remodeling chromatin. Experience in molecular biology and DNA manipulation is essential. Send curriculum vitae and names of three references to: **Dr. Kerry Blanchard, Louisiana State University Medical Center, Department of Medicine, Feist-Weiller Cancer Center, 1501 Kings Highway, Shreveport, LA 71103. FAX: 318-675-4969; e-mail: kblanc@lsuic.edu.** LSUIC is an Equal Opportunity Employer.

POSTDOCTORAL POSITION. Molecular biology. Ph.D. in biochemistry, pharmacology, cell biology, or related field required. Hands-on experience required in techniques of protein chemistry and modern molecular biology, including PCR. Fluency in written and spoken English imperative. Résumé to: **Professor R. J. Bergeron, P.O. Box 100485, Department of Medicinal Chemistry, Gainesville, FL 32610-0485. FAX: 352-392-8406.** No telephone calls please.

POSITIONS OPEN



RESEARCH ASSOCIATE/ POSTDOCTORAL FELLOW

NIH-funded Research Associate/Postdoctoral Fellow position is immediately available in **Dr. Tsokos'** laboratory to study signaling abnormalities in human lupus T and B lymphocytes (see: *J. Clin. Invest.* 101:1444, 1998). Outstanding candidates with expertise in lymphocyte signaling, flow cytometry, and molecular biology (RT-PCR and cell transfection) are preferred. We offer a competitive salary and generous benefits package. Please send résumés to:

**Human Resources Department, Attn: PL#2990071
Henry M. Jackson Foundation
for the Advancement of Military Medicine
1401 Rockville Pike, Suite 600
Rockville, MD 20852
E-mail: hr@hjf.org**

Equal Opportunity Employer/Affirmative Action.

POSTDOCTORAL ASSOCIATE MEDIATED SIGNALING CD-40

Boehringer Ingelheim Pharmaceuticals, Inc. has a Postdoctoral position available in their Department of Biology to study the cell biology and biochemistry of adapter protein multimerization in CD-40-mediated signal transduction. Candidates must hold a Ph.D. in the biological sciences with experience in biochemistry and molecular biology. Experience in gene expression using retroviral technology preferred, but not essential. Position is located in Ridgefield, Connecticut.

For immediate consideration, please e-mail or send your résumé and salary history to: **Boehringer Ingelheim Staffing Center, P.O. Box 534, Waltham, MA 02454-0534. FAX: 781-663-2431; e-mail: bipi@bi-careers.com.** Including Job Code: AD-SCI-PDO499 in your cover letter or subject line will help us to expedite your request and avoid delays in routing your résumé. Please, principals only. Unsolicited agency referrals will not be accepted. We are a proud Equal Opportunity Employer and are committed to offering a healthy, nonsmoking work environment. Minorities/Females/Disabled/Veterans.

POSTDOCTORAL FELLOWSHIP HARVARD MEDICAL SCHOOL

A position is available to join a group studying the molecular defects underlying the development of autoimmune diabetes using transgenic/knockout mouse approaches. Candidates holding a recent Ph.D. and/or M.D. degree with a strong background in cellular immunology, molecular biology, or genetics will be considered. Please send curriculum vitae, a statement of research interests, and names of three references to: **Dr. Myra Lipes, Section on Immunology, Joslin Diabetes Center, One Joslin Place, Boston, MA 02215. FAX: 617-732-2497; e-mail: lipesm@joslab.harvard.edu.**

POSTDOCTORAL POSITION available to study the contribution of decreases in growth hormone and IGF-1 to neural and cerebrovascular structure and function with age. Candidates should have a Ph.D. degree and experience in immunocytochemistry and *in situ* hybridization is desired. A background in neuroscience and/or neuroanatomy is helpful. Send curriculum vitae, a description of research experience, and names of three references to: **William E. Sonntag, Ph.D., Department of Physiology and Pharmacology, Wake Forest University School of Medicine, Medical Center Boulevard, Winston-Salem, NC 27157-1083. E-mail: wsonntag@wfubmc.edu.** Wake Forest University School of Medicine is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL/RESEARCH ASSOCIATE position available to study the regulation of gene expression and signal transduction by glutathione. Applications should have a Ph.D., M.D., or equivalent degree and a strong background in cellular and molecular biology. Please send curriculum vitae with three references to: **Michael W. Lieberman, M.D., Ph.D., Department of Pathology, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. FAX: 713-798-6001; e-mail: mike@bcm.tmc.edu.**

Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.

POSITIONS OPEN

DIRECTOR OF CUSTOMER SERVICE. ABS is the leading supplier of custom bioagents and cell culture services for drug discovery. We have two openings: a North American and a European Customer Service Director. We are looking for individuals with a broad scientific background (preferably with a Ph.D. in biochemistry or pharmacology). These individuals will visit regularly with our customers throughout the United States and Canada or Europe to assess and assist with their needs. They will also play a key role in the operations of ABS. Previous sales and marketing experience would be useful, but is not essential. We are primarily looking for individuals with good communication skills and a willingness to help others.

SENIOR RESEARCH and POSTDOCTORAL CHEMISTS are needed to work on the development of a new molecular recognition technology with applications in drug discovery. This work will involve assay development and the preparation and purification of bioconjugates of receptor ligands or enzyme substrates. Experience with assay development, bioconjugate chemistry, and organic synthesis are necessary. Experience with liposomes, self-assembling films, and fluorescence assays are also desirable. Individuals must be able to adapt and respond to rapidly changing priorities and opportunities.

Excellent salary and benefits. See website: www.ABSbioagents.com for additional details. Send résumé to: **ABS Inc., 701-4 Cornell Business Park, Wilmington, DE 19801.**

POSTDOCTORAL RESEARCH FELLOW position is available to study the effect of Bryostatin (a protein kinase C activator) on lymphoma/leukemia cells. Applications are encouraged from individuals with a Ph.D. in molecular biology or biochemistry with experience in *in vitro* transcription/translation techniques, Westerns, and immunoprecipitation. Send curriculum vitae and names of three references to: **Dr. Ayad Al-Katib, Wayne State University, Department of Internal Medicine, Division of Hematology and Oncology, 3990 John R-4 Brush South, Detroit, MI 48201. FAX: 313-577-7925; e-mail: alkatiba@karmanos.org.** W/SU is an Equal Opportunity/Affirmative Action Employer. All buildings, structures, and vehicles at W/SU are smoke-free. Wayne State University—people working together to provide quality service.

POSTDOCTORAL POSITION is available immediately to study spinal cord development. Ongoing projects use *in vivo* embryonic tissue manipulation, chimera production, and explant culture to study cell and tissue interactions required for the attainment of unique phenotypic characteristics in the posterior spinal cord. Candidates should have a Ph.D. or equivalent degree and a strong background in development or neurobiology. Send curriculum vitae and the names of three references to: **Dr. Cynthia Lance-Jones, Department of Neurobiology, University of Pittsburgh School of Medicine, W1441 Biomedical Science Tower, Pittsburgh, PA 15261. E-mail: clancej+@pitt.edu.** Women and minority candidates are encouraged to apply. The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION

Howard Hughes Medical Institute, currently has a Postdoctoral position available to study molecular recognition by peptide nucleic acids (PNAs). Projects focus on developing innovative applications for PNAs, but *in vivo* and *in vitro* (see: *Trends Biotechnol.* 15:224-229).

Send curriculum vitae and the names of three references to: **Dr. David Corey, Department of Pharmacology, University of Texas Southwestern Medical Center, Dallas, TX 75235-9041. E-mail: corey@howie.swmed.edu; website: www.hhmi.org.** Equal Opportunity Employer.

POSTDOCTORAL POSITIONS. Microvascular transport, endothelial-smooth muscle interactions in the kidney. Fluorescent videoimaging, microperfusion, patch clamp. Molecular and pharmacological studies of receptor expression and signaling. Curriculum vitae and references to: **Thomas L. Pallone, Division of Nephrology UMMS, Room N3W143, Baltimore, MD 21201.** The University of Maryland is an Equal Opportunity Employer.

POSTDOCTORAL POSITION to study structure-function and cell biology of phospholipase A₂. Background in protein expression and/or molecular and cellular biology preferred. Send curriculum vitae and the names of two to three references to: **M. H. Gelb, Departments of Chemistry and Biochemistry, University of Washington, Box 351700, Seattle, WA 98195.**

**PROGRAM ANALYST:
AIDS VACCINE
RESEARCH & DEVELOPMENT
SURVEILLANCE**

The International AIDS Vaccine Initiative (IAVI) invites applications for immediate hire of a Ph.D./MS in virology or immunology to head surveillance of state of the art in AIDS vaccine research and development to include: setting up workshops on AIDS vaccine R&D related issues, attending scientific meetings, and surveying AIDS vaccine literature specifically. Computer database skill essential in order to establish databases in vaccine antigen design, adjuvants, non-human primate studies, clinical trials, commercial and industrial activities in AIDS vaccine R&D and global manufacturing facilities for GMP produced vaccines. The successful candidate will also review status of cohorts for Phase III efficacy trials, serve as liaison to the Vaccine Research Subcommittee (VRS) of IAVI's Scientific Advisory Committee and as Executive Secretary for the VRS. This person must also provide additional scientific support to IAVI's educational, advocacy, web site and newsletter efforts. With a highly committed staff and external team of scientific advisors, IAVI is forging a global approach for a new scientific, industrial and governmental collaboration to finance, develop and test HIV vaccines for the world. For more information on IAVI, please consult our web site: www.iavi.org. We invite qualified applicants to mail or fax resume and letter of interest to: Dr. Wayne Koff, Vice President for Research and Development, IAVI, 810 Seventh Avenue, 31st Floor, New York, NY 10019 fax: (212)843-0480. The staff and board of IAVI value diversity and encourage international and minority candidates to apply.

**PROJECT MANAGER:
VACCINE DEVELOPMENT
PARTNERSHIPS**

The International AIDS Vaccine Initiative (IAVI) invites applications for immediate hire of a Project Manager for vaccine development. The successful candidate will have a BS/MS in biological sciences, with a background in biotechnology and pharmaceutical experience in project management. Ideally, this industry detail-oriented person will also have quality assurance, quality control and regulatory experience in a start up operation. This new position as Project Manager to IAVI's Vaccine Development Partnerships (VDPs), which are developing AIDS vaccines, will monitor scientific progress of IAVI supported VDPs, make site visits to labs and clinical trials sites, and interface with IAVI consultants in process development and vaccine manufacturing to ensure efficient progress of the VDPs. The Project Manager will also serve as liaison to the Vaccine Development Subcommittee (VDS) of IAVI's Scientific Advisory Committee, and as Executive Secretary for the VDS. This person will also provide additional scientific support to IAVI's educational, advocacy, web site and newsletter efforts. With a highly committed staff and external team of scientific advisors, IAVI is forging a global approach for a new scientific, industrial and governmental collaboration to finance, develop and test HIV vaccines for the world. For more information on IAVI, please consult our web site: www.iavi.org. We invite qualified applicants to mail or fax resume and letter of interest to: Dr. Wayne Koff, Vice President for Research and Development, IAVI, 810 Seventh Avenue, 31st Floor, New York, NY 10019 fax: (212)843-0480. The staff and board of IAVI value diversity and encourage international and minority candidates to apply.

GLOBAL OPPORTUNITIES



**UNITED ARAB EMIRATES UNIVERSITY
FACULTY OF MEDICINE AND HEALTH SCIENCES (FMHS)
Professor & Chair of Biochemistry**

Established in 1986 and recently moved into a completely equipped new building, the FMHS provides an integrated problem-oriented undergraduate medical curriculum with English as the medium of instruction. The appointee will demonstrate strong leadership and communication skills, energy, and flexibility to insure the efficient operation and continued development of the Department and the Faculty in collaboration with the other 14 Chairs and educational, research, and clinical management of the FMHS and the University.

Applicants for this exciting opportunity should hold a PhD or MD by research and have senior experiences in development/implementation/evaluation of educational and research programs for medical students and graduate students in basic medical sciences and be familiar with USMLE and MCCEE.

The UAE is an open and tolerant society and clearly one of the most attractive places to live and work in the Middle East.

Faculty receive tax-free salary, generous leave, and support for accommodation/furnishings, annual air fares, educational assistance for up to three children, and international conferences.

Further information may be obtained from the web site at <http://www.uaeu.ac.ae>.

Applications should include full CV and publication list, names/addresses/fax of five referees, and comprehensive letter indicating depth of interest, experience, and suitability for the post sent to:

The Dean (c/o Mr C. P. Nair)
Faculty of Medicine and Health Sciences, UAE University
P O Box 17666, Al Ain, United Arab Emirates

Applications closed 1 September 1999.

GLOBAL OPPORTUNITIES



UWA

The University of Western Australia

Perth

RESEARCH ASSOCIATE

Department of Physiology (REF: A9/99)

A vacancy exists in The Auditory Laboratory at The University of Western Australia, for an ARC funded postdoctoral position, to work under the supervision of Associate Professor Don Robertson. Starting time in 1999 is flexible, so prospective candidates still finishing their PhD could consider applying. The appointment will be until 31 December 2000. The research will use whole-cell patch and microelectrode recording in slices of auditory brainstem, using blind and pre-labelling methods. The goal is to investigate the effect of neuromodulators on synaptic function in the auditory brainstem and to identify the pharmacological and physiological characteristics of different neuronal populations within identified nuclei using pre-labelling with retrograde labels. Applicants must have a BSc (Hons). A knowledge of the auditory system is not required, but experience in brain slice recording and whole-cell patch techniques is essential. For an example of work carried out so far, see articles in J. Neurophysiology, vol.80, p218-229, 1998 and in Hearing Research, vol.116, p86-98, 1998. For further information and copies of the selection criteria please contact Don Robertson on +61 8 9380 3399 or email: drobed@cyllene.uwa.edu.au or access the web link below.

SALARY RANGE: Level A \$33,563 - \$45,548 p.a. (Minimum starting salary for appointee with PhD will be \$42,432 p.a.)

CLOSING DATE: 23 April 1999

Conditions of appointment will be specified in any offer of appointment which may be made as a result of this advertisement.

Written applications quoting reference number, telephone number, qualifications and experience and the names, addresses (including email) and fax/telephone numbers of three referees, who can comment on the applicant's research abilities, should reach the Director, Human Resources, The University of Western Australia, Nedlands WA 6907, by the closing date.
<http://jobs.uwa.edu.au/>

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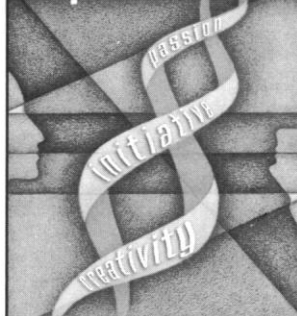
POSTDOCTORAL FELLOW

Applications are invited for a postdoctoral research position in the laboratory of Dr. Wen-Chen Yeh. Research projects will involve developing specific signal transducers that regulate the process of apoptosis and inflammatory signals induced by the tumor necrosis factor superfamily. A knowledge of molecular biology, signal transduction and transgenic mouse systems would be a valuable asset. A PhD or MD, coupled with extensive research experience, is required. Good written and verbal communication skills, strong organizational and interpersonal talents, and the ability to work independently are other important attributes for this role.

For confidential consideration, please send a complete copy of your curriculum vitae, together with the names and addresses of three referees, by May 1, 1999, to: **Dr. Wen-Chen Yeh, Amgen Institute, 620 University Avenue, Suite 7-706, Toronto, Ontario, Canada M5G 2C1.**

AMGEN INSTITUTE Affiliated with Ontario Cancer Institute / University of Toronto

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Send your resume, indicating Job Code SCI3250, to: Genentech, Inc., Human Resources, PO Box 1950, South San Francisco, CA 94083-1950. Please use plain typefaces. You may email your resume, indicating Job Code SCI3250, to jobs@gene.com (ASCII files only with a maximum line width of 76 characters). We cannot accept faxed resumes. Genentech is an EOE.

www.gene.com

POSITIONS OPEN

POSTDOCTORAL POSITION

The ideal candidate will have a Ph.D. in the biochemistry or molecular biology of RNA and retroviruses. Experience in working with RNA and chemical and enzymatic structure probing of RNA structure is required. Candidate will be expected to participate in all aspects of our project to define structural components of HIV genomic RNA that contribute to viral infectiousness. In addition, person accepting the position will be expected to assist in supervising and directing specific undergraduates and Technician. Manipulation of noninfectious HIV particles is an essential part of the project. Send curriculum vitae, research statement, and references by April 15, 1999, to: **Dr. Patrick Allen, Department of Molecular, Cellular, and Developmental Biology, Campus Box 347, University of Colorado at Boulder, Boulder, CO 80309. Telephone: 303-492-7866; FAX: 303-492-7744; e-mail: allenp@dred.colorado.edu. CU Boulder is an Equal Opportunity Employer.**

POSTDOCTORAL POSITION HARVARD UNIVERSITY

Position available to study the cell cycle dysregulation in head and neck cancer. Specific areas include the regulated expression and cell cycle control of p12/DOC-1 and related genes and proteins (*J. Biol. Chem.* 273:6704-6709, 1998; *FASEB J.* 9:1362-1370, 1995). Qualified candidates should have a strong background in molecular biology and biochemistry. Please forward a curriculum vitae and names and telephone numbers of three references to: **Dr. David Wong, Laboratory of Molecular Pathology, Harvard University, 188 Longwood Avenue, Boston, MA 02115. E-mail: david_wong@hms.harvard.edu.**

POSTDOCTORAL POSITION available to study mechanisms of long-term potentiation in hippocampal slices and/or cultured hippocampal neurons. Experience in electrophysiology required. Send curriculum vitae and the names of three references to: **Dr. Robert Hawkins, Center for Neurobiology and Behavior, Columbia University, 722 West 168th Street, New York, NY 10032. FAX: 212-543-5474; e-mail: rhawkins@pi.cpmc.columbia.edu. We take Affirmative Action toward Equal Employment Opportunity.**

POSITIONS OPEN

POSTDOCTORAL POSITION DEVELOPMENTAL BIOLOGY OF THE EAR AVAILABLE: JUNE 1, 1999

Postdoctoral position available in the Department of Cell and Molecular Biology at the House Ear Institute, Los Angeles, California. The Section on Molecular Development is examining the early events in the induction of the chick inner ear, and the differentiation and path-finding of auditory neurons. Work in new laboratory equipped with confocal microscopy, image processing, molecular biology, and cell culture facilities. Strong links and ongoing collaboration with the University of Southern California and California Institute of Technology. Position requires Ph.D. with experience in at least one of the following areas: experimental embryology, gene expression using retroviral vectors, molecular biology, or cell culture. Previous experience of inner ear biology is not necessary, although a strong interest in developmental biology is essential. Starting salary: \$35,000-plus per year plus full health/403(b) benefits package. Relocation expenses may be provided. The House Ear Institute, located in the downtown Los Angeles area, is a nonprofit research and education organization dedicated to improving the lives of people who have hearing and hearing-related disorders. Send a curriculum vitae and three references to: **Dr. Andy Groves, Division of Biology, 139-74, California Institute of Technology, Pasadena, CA 91125. E-mail: grovesa@cco.caltech.edu.**

POSTDOCTORAL POSITIONS available immediately to (1) study the molecular bases of human genetic disorders of brain iron metabolism. See website: <http://www.ohsu.edu/som-MedGen/gensjh.htm>. Requires a strong background in molecular biology, enthusiasm, and independence. (2) Study the role of TNF signaling pathways during mammalian hair and tooth development. Background in cell biology or biochemistry with cell culture experience strongly preferred. Send curriculum vitae and three letters of reference to: (1) **Dr. Susan Hayflick** or (2) **Dr. Betsy Ferguson, Department of Molecular and Medical Genetics L-103, Oregon Health Sciences University, 3181 S.W. Sam Jackson Park Road, Portland, OR 97201-3098. E-mail: hayflick@ohsu.edu or fergusob@ohsu.edu.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS available immediately on NIH-funded project to develop new penicillin-binding protein inhibitors. Enzymologists and/or Peptide Chemists encouraged to apply. Please send curriculum vitae, description of research experience, and the names and addresses of three references to: **William G. Gutheil, Ph.D., Re: Postdoctoral Position, Department of Biochemistry, Meharry Medical College, 1005 D. B. Todd Boulevard, Nashville, TN 37208. Meharry is an Equal Opportunity Employer.**

POSTDOCTORAL POSITION available to study the role of COX-2 in cancer. Current projects include studies on the prostaglandin and peroxisome proliferator-activated receptors, cell cycle, and gene expression. Please send curriculum vitae, names of three references, and a statement of research interests and future plans to: **Dr. Raymond N. DuBois, c/o Rebecca Shattuck, Ph.D., Department of Medicine/GI, Vanderbilt University Medical Center, Nashville, TN 37232-2279. E-mail: becky.shattuck@mcmail.vanderbilt.edu.**

NIH-funded **POSTDOCTORAL POSITION** available immediately to study signal transduction pathways regulating cell cycle checkpoints, apoptosis, and transformation. Candidate should have a Ph.D. degree and experience in molecular biology and cell signaling. Please FAX curriculum vitae to: **Dr. Kam-Meng Tchou-Wong, New York University Medical Center, 550 First Avenue, MSB 147, New York, NY 10016. FAX: 212-263-8902.**

Molecular genetics **POSTDOCTORAL FELLOWSHIP** available for work on *in vitro* gene trapping and cDNA microarray studies and *in vivo* mouse QTL studies of musculoskeletal genes and diseases. Focus of this work is gene function. Possibility of long-term position. Salary, benefits competitive. Send cover letter, curriculum vitae, and names of three references to: **Ms. A. MacMurray, Loma Linda University, P.O. Box 7210, Loma Linda, CA 92354. LLU is an Equal Opportunity Employer.**



**Faculty Position
Department of Biochemistry and
Molecular Biology
Medical College of Ohio**

Applications are invited for a tenure-track position at the Assistant or Associate Professor level. This appointment is the first step in a major expansion of the department following the recruitment of a new chairman. Candidates working in all areas of biochemistry or molecular biology will be considered. Applications are particularly encouraged from individuals working on regulation of cell growth, differentiation and gene expression, mechanisms of signal transduction in normal and transformed cells, control of the cell cycle or apoptosis, and molecular/cellular problems related to gene therapy. Excellent research facilities and start-up funds are available. Requirements include a Ph.D. or M.D. with postdoctoral experience and demonstrated research accomplishments. The successful candidate will be expected to establish a vigorous externally funded research program and participate in the teaching of medical and graduate students. Candidates at the Associate Professor level should have current grant support. Applicants should submit a curriculum vitae, description of research plans, selected publications, and names and addresses of three references to:

**Faculty Search Committee
c/o Carlene Thomas
Department of Biochemistry and
Molecular Biology
Medical College of Ohio
3035 Arlington Ave.
Toledo, OH 43614**

Applications must be received by July 1, 1999
EO/AA employer, M/F/D/V

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EUROPEAN OPPORTUNITIES

**Royal Holloway
University of London**

**Chair in Computer Science
Senior Lecturer in Computer Science
Lecturer in Computer Science**

Newly created posts in Bioinformatics Research

Royal Holloway invites applications for three established positions commencing September 1999: Chair in Computer Science (equivalent to full Professor: Ref. CRB/126), Senior Lecturer in Computer Science (new post equivalent to Associate Professor: Ref. CRB/1581) and Lecturer in Computer Science (new post equivalent to Assistant Professor: Ref. CRB/1580). All are permanent posts.

The Department of Computer Science requires the candidates for these positions to demonstrate research accomplishments at a very high level as well as good teaching abilities at both undergraduate and postgraduate level. In the case of the Chair, we seek to appoint an outstanding scholar with an international reputation to provide academic leadership in Computer Science and in particular to head a new research area such as Bioinformatics.

The new posts have been released by the College in recognition of the strengths of the Department of Computer Science (established 1968) and Computer Learning Research Centre (established 1998). The Department and the Centre seek to strengthen and broaden their research programme from the present activities in Computational Learning, Formal Methods, Constraint Satisfaction and Languages/Architectures into complementary areas, particularly Bioinformatics. However candidates from any area of Computer Science or a related discipline will be considered.

Royal Holloway is one of the larger colleges of the University of London, situated in the green belt. Its attractive campus is close to Heathrow and with excellent communications by road and rail.

Informal enquiries may be made to the Head of Department, Professor Alex Gammernan, tel. 01784 443421; email HoD@dc.s.rhnc.ac.uk. Details of the Department can be found at <http://www.dcs.rhnc.ac.uk/CLC/>

Application forms and further particulars are available from and should be returned to the Personnel Office, Royal Holloway, University of London, Egham, Surrey TW20 0EX. Tel: 01784 443030; fax: 01784 473527; email: s.brewell@rhnc.ac.uk. Please quote the appropriate reference number. Applications will be reviewed from 31st March 1999.

Royal Holloway positively welcomes applications from all sections of the community.

EUROPEAN OPPORTUNITIES



**Microbiology and Tumor Biology Center
Karolinska Institute
Stockholm Sweden**

Post-doctoral scientists

The Microbiology and Tumor Biology Center at the Karolinska Institute has a staff of about 250 persons and well equipped research laboratories with a strong focus on molecular and cell biology. Research areas comprise molecular pathogenesis of microbial, parasitic and viral infections, immunology and tumor biology. Four post-doctoral fellowships are immediately available in the following areas:

Molecular virology for work on the immunoregulation of latent viral infections with special emphasis on the characterisation of immune effector mechanisms and identification of viral strategies of immunoevasion. The successful candidate will support the research activities of a team working on Epstein-Barr virus but scientists with experience on other human herpesviruses or murine gamma-herpesvirus models are encouraged to apply. Informal enquiries can be directed to Maria Masucci tel +46 (0)8 7286279. e-mail: maria.masucci@mtc.ki.se

Regulation of proteosomal function. The project is focused on intracellular proteolysis which generate ligands for MHC class I molecules. Experience within protein biochemistry or cellular immunology is required. Informal enquiries can be directed to Rickard Glas tel +46 (08) 7286280. e-mail: glas@hms.harvard.edu

Structural biology. The project is focused on structural aspects of suppression of T-cell response by Epstein-Barr virus. A research background in protein crystallography as well as in cloning, expression and purification of proteins is required. Informal enquiries can be directed to Carl-Ivar Brändén tel 46 (08) 7286210. e-mail: Carl.Ivar.Branden@mtc.ki.se

Bioinformatics. The project is focused on inverse folding, in particular to develop specific potentials to use in threading algorithms for each of the most common protein folds. Research experience in 3-D structure analysis and/or advanced programming is required. Informal enquiries can be directed to Carl-Ivar Brändén tel 46 (08) 7286210. e-mail: Carl.Ivar.Branden@mtc.ki.se

Applications including CV and two references should be sent to Maria G. Masucci, Professor of Virology for the first two positions and to Carl-Ivar Brändén, Professor of Structural Biology, for the two last positions. Address: Microbiology and Tumor Biology Center, Karolinska Institute, Box 280, S-171 77 Stockholm, Sweden.

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP IN PROSTATE CARCINOMA NATIONAL CANCER INSTITUTE

A Postdoctoral Research Training Fellowship for investigating the molecular genetics of prostate cancer is available in the Urologic Oncology Branch, NCI. Studies currently underway include analysis of the role of tumor suppressor genes in the development of prostate cancer, and the molecular changes associated with hereditary and sporadic prostate cancer.

There are opportunities to work closely with basic scientists and clinicians at the NCI including the Cancer Genome Anatomy Project (CGAP), the Cancer Chromosome Abnormality Project (CCAP), the Cancer Proteomics Project. Unique reagents are available to study unique genes expressed in prostate cancer, spectral karyotypic changes in early prostate cancer, cDNA microarrays, and molecular fingerprinting.

Applicants must have a Ph.D. and/or M.D., relevant experience in cellular or molecular biology, and less than five years of postdoctoral experience.

Please send a cover letter, résumé, and three letters of recommendation by mail or FAX to:

W. Marston Linehan, M.D.
Chief, Urologic Oncology Branch
National Cancer Institute
National Institutes of Health
10 Center Drive, Building 10, Room 2B47
Bethesda, MD 20892-1501
FAX: 301-402-0922

Selection for this position will be based solely on merit with no discrimination for nonmerit reasons such as race, color, gender, national origin, age, religion, sexual orientation, or physical or mental disability. NIH is an Equal Opportunity Employer.

POSTDOCTORAL POSITION BACTERIAL PATHOGENESIS

A Postdoctoral position is available to explore how pH, carbohydrate source and availability, and rate of growth influence expression of a variety of genes in oral streptococci through repression or antitermination, and how the sugar phosphotransferase system modulates the activity of the regulatory proteins. These studies will also involve the use of continuous chemostat culture, biofilm reactors, and confocal laser scanning microscopy to study gene regulation under conditions that more closely mimic those found *in vivo* (see website for more information, website: www.urmc.rochester.edu/gebs/faculty/Robert_Burne.htm). Applicants should have demonstrated expertise in the area of molecular biology. Please send curriculum vitae and contact information for three references to: Robert A. Burne, Ph.D., Center for Oral Biology, University of Rochester Medical Center, 601 Elmwood Avenue, Rochester, NY 14642-8611. E-mail: robert_burne@urmc.rochester.edu.

UR is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available to study the effects of mononuclear phagocyte proteases on synaptic and myelin protein. Studies include neurochemical analysis of human brain specimens and cultured mononuclear phagocytes. The extensive collection of banked frozen brain specimens of the Texas Center for AIDS Neurodegeneration Research will be available to the Trainee, as will senior-level interdisciplinary expertise in virology and neuropathology. A Ph.D. in molecular immunology or neurobiology or M.D. with interest in clinical neuroscience is required. Submit résumé and names of three references to: Benjamin B. Gelman, M.D., Ph.D., Department of Pathology, University of Texas Medical Branch, Galveston, TX 77555-0785. E-mail: bgelman@utmb.edu. UTMB is an Equal Opportunity Employer/Minorities/Females/Disabled/Veterans. UTMB hires only individuals authorized to work in the United States.

POSTDOCTORAL POSITIONS in genetics and molecular biology of aging. Studies include longevity genes in yeast, homologs in humans, and their molecular mechanisms, as well as human population genetics (*Exp. Gerontol.* 33:571, 773, 1998; *Exp. Cell Res.* 245:368, 379, 1998; *Genome Res.* 8:1259, 1998). Applicants with experience in genetics and/or molecular biology send curriculum vitae and names of three references to: Dr. S. M. Jazwinski, Department of Biochemistry, Louisiana State University Medical Center, 1901 Perdido Street, New Orleans, LA 70112. E-mail: sjazi@lsu.edu. LSUMC is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

INTERESTED IN CLINICAL OR POSTDOCTORAL RESEARCH TRAINING?

The National Institutes of Health has both! For more information, visit our website which lists an array of clinical and postdoctoral opportunities, including tenure-track positions.

<http://www.training.nih.gov>
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CALTECH POSTDOCTORAL SCHOLARS PROGRAM AT JET PROPULSION LABORATORY

The California Institute of Technology (Caltech) Postdoctoral Program at the Jet Propulsion Laboratory (JPL) is inviting qualified applicants to apply for positions at JPL's Center for Integrated Space Microsystems. Areas of interest are related to revolutionary computing technologies and include neural networks (biological as well as artificial), evolutionary computing, analog VLSI signal processing, quantum dots fabrication and characterization, quantum dots-based computing and memory architectures, quantum computing, DNA and molecular computing, human immune inspired computing architectures, and ultra-low-power architectures. Research activities include development of novel software and hardware architectures for optimization, classification, and pattern recognition applied to spacecraft data analysis. Expertise in the area of bio-inspired hardware, quantum mechanics, or biological computing is required. Experience in pattern recognition, signal processing, and software development in C/C++ is highly desirable. The successful candidate will work closely with Dr. N. B. Toomarian.

Applicant should have a recent Ph.D. in physics, mathematics, electrical engineering, computer science, or a related field. Appointment is contingent upon evidence of completion of Ph.D. Annual starting salary for a recent Ph.D. is approximately \$42,000 and can vary according to the applicant's qualifications. Postdoctoral Scholar positions are awarded initially for a one-year period. Appointments may be renewed in one-year increments for a maximum of two additional years. Please send curriculum vitae, bibliography, statement of research interests, and a list of three references to:

Dr. Nikzad B. Toomarian
Jet Propulsion Laboratory
4800 Oak Grove Drive
MS 303-310
Pasadena, CA 91109
FAX: 818-393-5013

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The California Institute of Technology and the Jet Propulsion Laboratory are Equal Opportunity/Affirmative Action Employers. Women, minorities, veterans, and disabled persons are encouraged to apply.

The National Eye Institute, National Institutes of Health, has a **POSTDOCTORAL POSITION** available to study the regulation of cyclin-dependent kinases in differentiation and apoptosis of ocular tissues. Current studies focus on Cdk5. Stimulating interactive environment. Travel opportunities. Starting salary ranges from \$27,500 to \$38,000 per year depending upon experience. Applicants must have strong background in molecular/cellular biology, must have Ph.D. or M.D. with less than five years of postdoctoral experience, and must be U.S. citizens or permanent residents. Please send curriculum vitae, bibliography, and names of three references to: Dr. Peggy S. Zelenka, Laboratory of Molecular and Developmental Biology, Building 6, Room 214, MSC-2730, MD 20892-2730. Telephone: 301-496-7490; FAX: 301-435-7682; e-mail: zelenka@helix.nih.gov. NIH is an Equal Opportunity Employer.

POSTDOCTORAL POSITION VOLTAMMETRY, LIMNOLOGY

A Postdoctoral position is available in May 1999 to work on processes occurring close to the sediment-water interface in lakes using voltammetric microelectrodes. Preference will be given to individuals with a strong background in voltammetry/analytical chemistry.

Send curriculum vitae to: A. Tessier, Université du Québec, Institut National de la Recherche Scientifique (Eau), C.P. 7500, Sainte-Foy, Québec G1V 4C7 Canada.

POSITIONS OPEN

CALTECH POSTDOCTORAL SCHOLARS PROGRAM AT JET PROPULSION LABORATORY

The California Institute of Technology (Caltech) Postdoctoral Scholars program at the Jet Propulsion Laboratory (JPL) invites applicants to apply for a position with the Molecular Spectroscopy Group at JPL. In addition to independent research, the successful candidate will assist in operation and data analysis of balloon-borne heterodyne measurements of stratospheric OH. The successful candidate should be well versed in modern submillimeter-wave heterodyne measurement procedures.

Candidates should have a recent Ph.D. in electrical engineering, physics, or chemistry with emphasis on the development of submillimeter-wave heterodyne techniques.

Annual starting salary for a recent Ph.D. is approximately \$42,000 and can vary somewhat, according to the applicants' qualifications. Postdoctoral scholar positions are awarded initially for a one-year period. Appointments may be renewed in one-year increments for a maximum of two additional years.

Please send a letter of interest along with your résumé to the address listed below. The appointment is expected to begin in the spring of 1999.

Dr. Herbert M. Pickett
Mail Stop 183-701
4800 Oak Grove Drive
Pasadena, CA 91109
Telephone: 818-354-6861
FAX: 818-393-5065

E-mail: herbert.m.pickett@jpl.nasa.gov

The California Institute of Technology and the Jet Propulsion Laboratory are Equal Opportunity/Affirmative Action Employers. Women, minorities, veterans, and disabled persons are encouraged to apply.

POSTDOCTORAL FELLOWSHIP

A position is available immediately to study strategies for the targeted delivery of complement inhibitors to sites of disease. The successful candidate may also become involved in other research projects that include mechanisms of complement inhibition, the role of complement in inflammation, and the role of complement in tumorigenesis. Experience in molecular biological techniques and protein expression is required. Experience with recombinant antibody technology is desirable. Fellows will be supported by an NIH training grant, requiring U.S. citizenship or resident status. Send curriculum vitae and names and addresses of three referees to: Dr. Stephen Tomlinson, New York University School of Medicine, Department of Pathology, 550 First Avenue, New York, NY 10016. E-mail: tomlis01@popmail.med.nyu.edu.

POSTDOCTORAL POSITION UNIVERSITY OF PITTSBURGH

A Postdoctoral position is available to study the role of signaling proteins in human melanoma and its precursor lesions. The project involves cloning and characterization of proteins interacting with FGF receptors, and analysis of their function in melanoma development and angiogenesis. Experience in molecular biology is essential and knowledge in the area of signal transduction is desirable. Interested candidates should submit curriculum vitae and the names and addresses of three references to: Dorothea Becker, Ph.D., Department of Pathology, University of Pittsburgh, BST E1050, 211 Lothrop Street, Pittsburgh, PA 15213.

A **POSTDOCTORAL POSITION** is available at University of California, Davis to study the mitochondrial cause of neurodegeneration in Friedreich's ataxia (ref.: *Hum. Mol. Genet.* 8:425-430, 1999). Molecular and tissue culture experience and native English proficiency will be strongly preferred. E-mail or mail curriculum vitae to: VM: Molecular Biosciences, University of California, Davis, CA 95616-8741. E-mail: gacortopassi@ucdavis.edu. UC Davis is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITIONS to study TGF β family signal transduction and gene regulation and its role in cancer and aging. Excellent research environment and state-of-the-art facilities. Seeking highly motivated individuals. Send curriculum vitae and the name of three references to: Fang Liu, Ph.D., Rutgers University, Center for Advanced Biotechnology and Medicine, 679 Hoes Lane #239, Piscataway, NJ 08854. E-mail: fangliu@cabm.rutgers.edu; website: www.cabm.rutgers.edu.

SPECIALIST

UCSF Genome Analysis Core Facility

The Cancer Center at the University of California San Francisco is seeking a specialist (assistant, associate or full specialist) for the Genome Analysis Core Facility. As part of the Cancer Center Molecular Diagnostics Core, this facility provides a variety of genomic analysis services to the UCSF faculty and their collaborators. Some of these services are DNA sequencing, mutation detection, loss of heterozygosity, linkage analysis, quantitative microsatellite analysis and gene expression quantification. In general the means for performing the analyses are on Applied Biosystems instruments, including the ABI 377 and the ABI 7700. We are seeking an individual to perform as director of the Core. This entails interacting with users, scheduling services, supervising laboratory personnel, analyzing results, reporting results to users, bookkeeping, and developing new analyses. This requires education in molecular biology/cancer genetics (a PhD is desirable as well as capabilities to interact well with medical researchers. Experience with the ABI 377 is required, as is experience with computer analysis using data bases and/or spread sheets. Experience with the ABI 7700 is desirable, as are good record keeping and organizational skills.

The University of California is an Equal Opportunity/Affirmative Action Employer. Minority candidates and women are encouraged to apply.

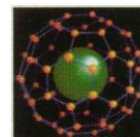
Applicants should send a curriculum vitae, a short statement of research plans, and the names of at least three references to:

RONALD H. JENSEN, PH.D.
UCSF CANCER CENTER
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
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EUROPEAN OPPORTUNITIES

Institute of Child Health

and Great Ormond Street Hospital for Children NHS Trust

Research Team Leader in Human or Medical Genetics

A faculty position is available at assistant/associate or full professor level, as appropriate. Candidates are expected to have an international track record in genetics related to human disease, and to be capable of attracting peer-reviewed funding. The successful candidate will work in close proximity to several groups working on allied clinical, molecular and developmental research projects, providing critical mass and opportunity for collaboration.

The Institute of Child Health is an integral part of University College, London, and has a faculty of over 100 senior academic staff, including 38 professors and 150 postgraduate students. Research is organised into seven themes which integrate clinical and basic research programmes (<http://www.ich.ucl.ac.uk>). Research opportunities are further enhanced by strong links with the Hospital for Sick Children, Gt. Ormond St, with whom we are affiliated.

For informal discussions regarding the post please contact Prof. Peter Scambler, (p.scambler@ich.ucl.ac.uk). Formal applications, including full CV and outline of research programme, should be sent to Prof. Roland Levinsky, Dean, at the address below (r.levinsky@ich.ucl.ac.uk) Institute of Child Health, 30 Guilford Street, London WC1H 1EH, tel: 0171 242 9789 ext 2650 or e-mail: recruit@ich.ucl.ac.uk



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KAROLINSKA INSTITUTET

Department of Biosciences at Novum

Post-Doctoral Positions

SHH-PTCH Signaling

Ref no 53021/38

Two post-doctoral positions are presently open within the Department of Biosciences, Karolinska Institutet. The research is focused on the mechanisms of signal transduction in the SHH-PTCH signaling pathway and the importance of this pathway for cancer development.

Projects involve identification and characterization of novel components in the pathway, search for target genes as well as generation of genetically modified mouse models.

The positions are initially tenable for two years with a possibility for extension. Experience in cell- and molecular biology and/or genetic modification of mice is important.

Please send application, CV and names of two referees to Prof. Rune Toftgård, Karolinska Institutet, Department of Biosciences at Novum, S-141 57 Huddinge, Sweden not later than April 6. E-mail address; Rune.Toftgard@cnt.ki.se. Please quote reference no 53021/38

POSITIONS OPEN

POSTDOCTORAL POSITIONS AND GRADUATE STUDENT FELLOWSHIPS LINUS PAULING INSTITUTE Oregon State University 571 Weniger Hall, Corvallis, OR 97331

The mission of the Linus Pauling Institute is to determine the function and role of micronutrients, phytochemicals, and microconstituents of food in promoting human health and preventing and treating disease. Please apply directly to the Investigator with whom you would like to work:

Balz Frei. The role of oxidants and antioxidants in atherosclerosis and endothelial cell dysfunction, and the potential pro-oxidant effects of antioxidants *in vivo*.

Tory M. Hagen. The nature of age-related mitochondrial decay and its cellular consequences. Experience in cell isolation, HPLC techniques, and measuring basic indices of mitochondrial function and parameters of cellular oxidative stress preferred.

Maret G. Traber. The structure/function relationships and regulation of the alpha-tocopherol transfer protein. Experience in molecular biology and/or protein chemistry preferred.

David E. Williams. Cancer chemoprevention by dietary constituents with a focus on plant phytochemicals. Experience in toxicology and/or xenobiotic metabolism preferred.

Rod Dashwood. Molecular, biochemical, and cellular mechanisms of colorectal carcinogenesis; dietary mutagens and chemopreventive agents. Experience in (bio)-chemistry and molecular biology or toxicology preferred.

For Postdoctoral positions, the successful candidates will have a recent Ph.D. in biochemistry, molecular biology, or a related field, and a strong publication record. Submit curriculum vitae, summary of research experience, and contact information for three references. For application instructions for Graduate Student Fellowships and further information, see our website: <http://osu.orst.edu/dept/lpi>.

NATIONAL CANCER INSTITUTE

POSTDOCTORAL POSITIONS are available immediately to conduct research on the molecular biology and evolution of retroviruses, with emphasis of HIV and related lentiviruses. The laboratory is currently the SIV macaque model for studying AIDS pathogenesis, vaccine development, and the identification of novel antiviral compounds. Applicants must have a Ph.D. and/or M.D. degree with a strong background in molecular biology and virology preferred, and less than five years of postdoctoral experience. The duration of these appointments is two to three years. Send curriculum vitae and names of three references by April 1, 1999, to: **Raoul E. Benveniste, Ph.D., M.D., Laboratory of Genomic Diversity, Building 560/Room 21-78, P.O. Box B, NCI-Frederick Cancer Research and Development Center, Frederick, MD 21702-1201. FAX: 301-846-1909.** NIH is an Equal Opportunity Employer.

POSTDOCTORAL FELLOW MOUNT SINAI SCHOOL OF MEDICINE

Mount Sinai School of Medicine is a leader in medical education and research. We have a Postdoctoral Fellow position for NIH and industry-funded research in cell and molecular biology of lipid and lipoprotein metabolism related to atherosclerosis.

For consideration, send curriculum vitae and names of references to: **Dr. Edward A. Fisher, Director of Lipoprotein Research, Cardiovascular Institute, Box 1030, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574. FAX: 212-828-4178; e-mail: edmd-phd_fisher@smthlink.mssm.edu.** We are an Equal Opportunity Employer fostering diversity in the workplace.

POSTDOCTORAL FELLOW MITOCHONDRIA AND CELL DEATH

The University of Maryland's School of Medicine is seeking an individual with experience in mitochondrial bioenergetics to work on mechanisms of neurodegeneration, emphasizing oxidative stress, calcium, and metabolic failure. Send curriculum vitae, summary of research interests, and three references to: **Dr. Gary Fiskum, Department of Anesthesiology, University of Maryland Baltimore, 685 West Baltimore Street, MSTF 5-34, Baltimore, MD 21201. E-mail: gfkum@anesthlab.ab.umd.edu.**

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP IN MOLECULAR GENETICS OF RENAL CARCINOMA National Cancer Institute

An immediate opening exists in the Urologic Oncology Branch of the National Cancer Institute for a full-time Postdoctoral Research Training Fellowship for investigating the molecular genetics of hereditary and sporadic kidney cancer. Studies of the molecular genetics of renal carcinoma, including the role of the recently identified VHL tumor suppressor gene (*Science* 260, 1993) the c-Met proto-oncogene (*Nature Genetics* 16, 1997) and the molecular genetic bases of acquired or hereditary cancer are under investigation (*Nature Genetics* 7, 1994; *Science* 269, 1994; *PNAS* 92, 1995; *PNAS* 93, 1996; *PNAS* 94, 1996; *PNAS* 94, 1997). There are opportunities to work closely with basic scientists and clinicians at the NCI including the Cancer Genome Anatomy Project (CGAP), the Cancer Chromosome Abnormality Project (CCAP), the Cancer Proteomics Project. Unique reagents are available to study unique genes expressed in kidney cancer, spectral karyotypic changes in early kidney cancer, cDNA microarrays, and molecular fingerprinting.

Applicants must have a Ph.D. and/or M.D., relevant experience in cellular or molecular biology, and less than five years of postdoctoral experience.

Please send a cover letter, résumé, and three letters of recommendation by mail or FAX to:

W. Marston Linehan, M.D.
Chief, Urologic Oncology Branch
National Cancer Institute
National Institutes of Health
10 Center Drive, Building 10, Room 2B47
Bethesda, MD 20892-1501
FAX: 301-402-0922

Selection for this position will be based solely on merit with no discrimination for nonmerit reasons such as race, color, gender, national origin, age, religion, sexual orientation, or physical or mental disability. NIH is an Equal Opportunity Employer.

The University of Alabama at Birmingham offers a challenging opportunity for a **POSTDOCTORAL SCIENTIST** to design and perform laboratory research necessary to characterize a gene transfer-based approach to tumor therapy. The project will involve vector development for transfer of the *E. coli* PNP gene to malignant tumors in mice (see: *J. Biol. Chem.* 273(4):2322-2328, 1998; *Cancer Research* 55:3339-3345, 1995; *Human Gene Ther.* 8:1637-1644, 1997), and includes interaction with an interdisciplinary team of investigators in the development of novel antitumor prodrugs with a special focus on solid malignancies. The successful candidate will have a recent Ph.D. in biochemistry, microbiology, or a related discipline. Excellent oral and written skills required. The faculty involved in the project have a strong record of advancing the careers of promising Postdoctoral Fellows to junior faculty positions in academic medicine. Send your curriculum vitae, a cover letter describing your research experiments and goals, and reference information to: **Eric J. Sorscher, M.D., The University of Alabama at Birmingham, 796 MCLM, 1918 University Boulevard, Birmingham, AL 35294-0005. FAX: 205-934-7593. UAB is an Affirmative Action/Equal Opportunity Employer.**

POSTDOCTORAL RESEARCH ASSOCIATE. Ph.D. in a natural science field required. Must have experience in molecular biology and biochemistry. Experience and/or knowledge of signal transduction of protein kinases and tissue culture. Research in characterization of endothelin receptors and its second messenger systems in ocular tissues. Please submit curriculum vitae and cover letter to e-mail: lbarber@hsc.unt.edu; FAX: 817-735-0243. *University of North Texas Health Science Center at Fort Worth is an Equal Employment Opportunity/Affirmative Action Institution.*

MEETINGS

MEDICAL UNIVERSITY OF SOUTH CAROLINA offers programs leading to Ph.D. and M.D.-Ph.D. degrees in each of the basic biomedical sciences (biochemistry, microbiology/immunology, pathology, pharmacology, physiology), biometry/epidemiology, pharmaceutical sciences, and molecular and cellular biology and pathobiology. Competitive stipends of \$16,000 available. Contact: **College of Graduate Studies, Medical University of South Carolina, P.O. Box 250617, Charleston, SC 29425.** Or call toll-free, Telephone: 1-800-589-2003.

POSITIONS OPEN

POSTDOCTORAL POSITION ANGIOGENESIS/GROWTH FACTORS/ CANCER BIOLOGY

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Please send curriculum vitae, recent reprints, and names of three references to: **Dr. Kevin Claffey, MC 3505, University of Connecticut Health Center, 263 Farmington Avenue, Farmington, CT 06030.**

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1.0 μ mole	\$2.40	\$20.00	100-mer	PAGE	from \$45	Fluorescein	\$50
(Larger scales available)				(Many scales available)		HEX, TET, 6-FAM	\$70
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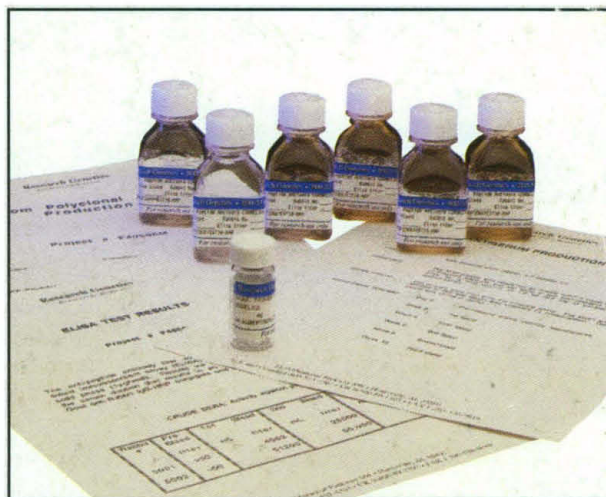
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Custom Antibody Production

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Using tested protocols, antibodies will be generated in two rabbits over a 10-week period. We will also monitor antibody titer by ELISA. Each rabbit typically provides ~80 ml of antiserum. Five mg of linear peptide or MAP peptide will also be shipped with the antiserum. With the standard protocol you will receive the following:

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- Four week bleeds ~20 ml per animal
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