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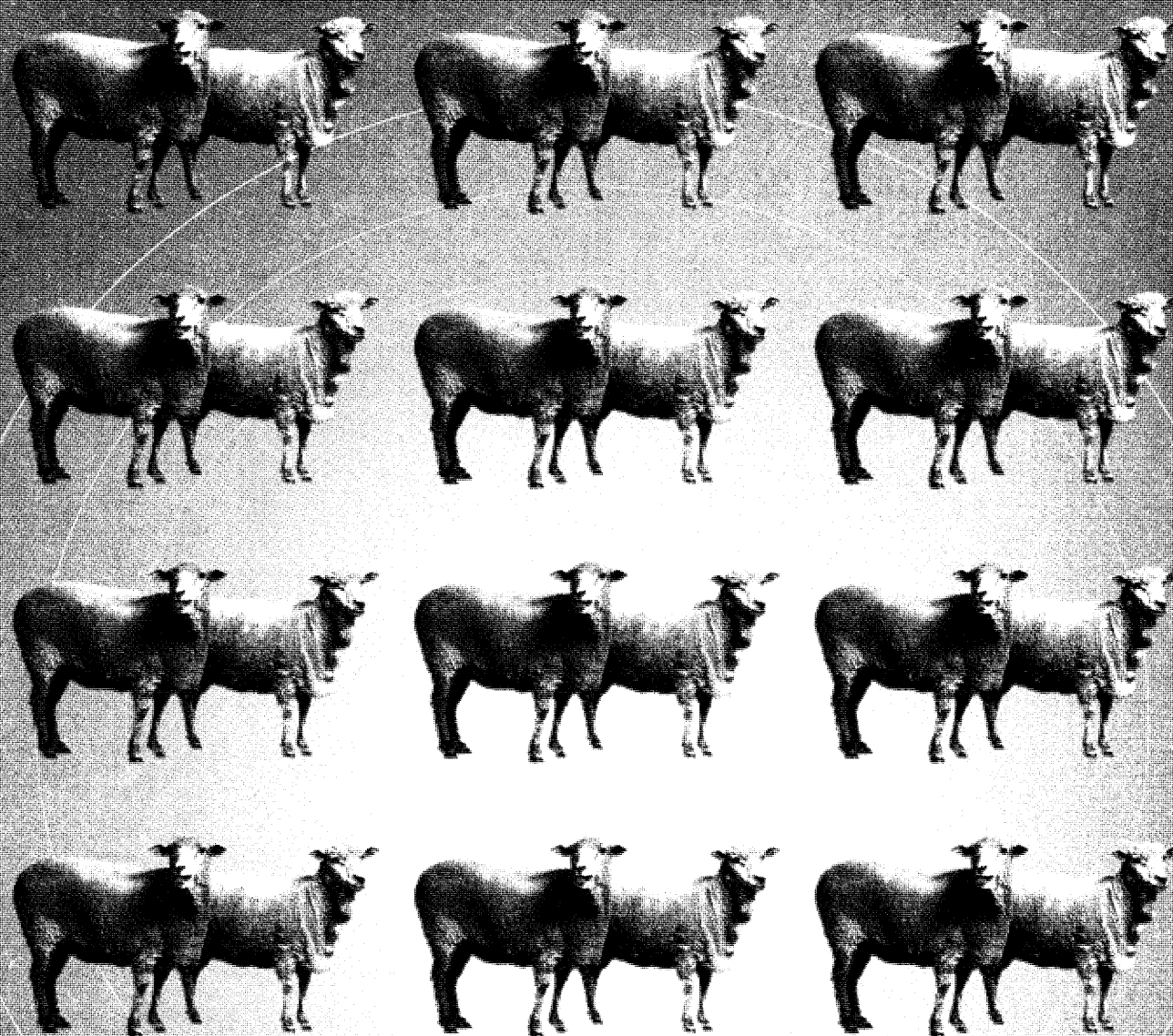
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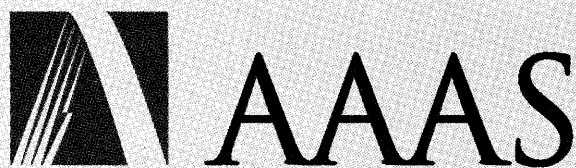
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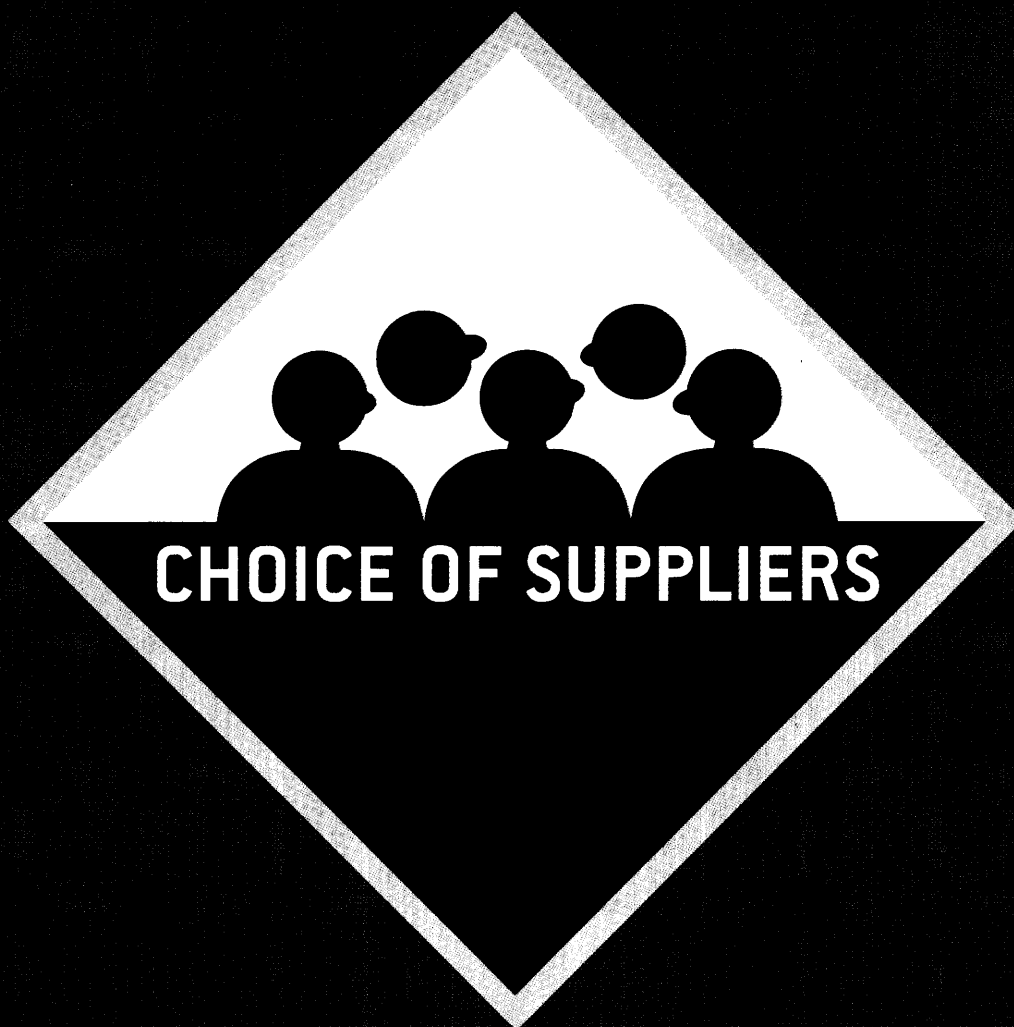
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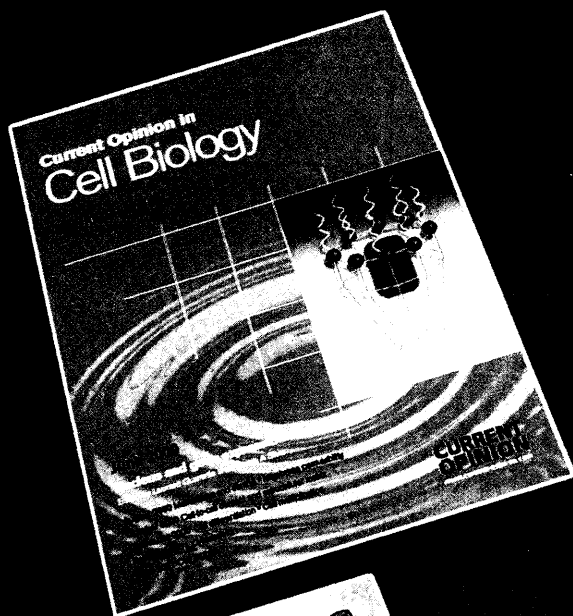
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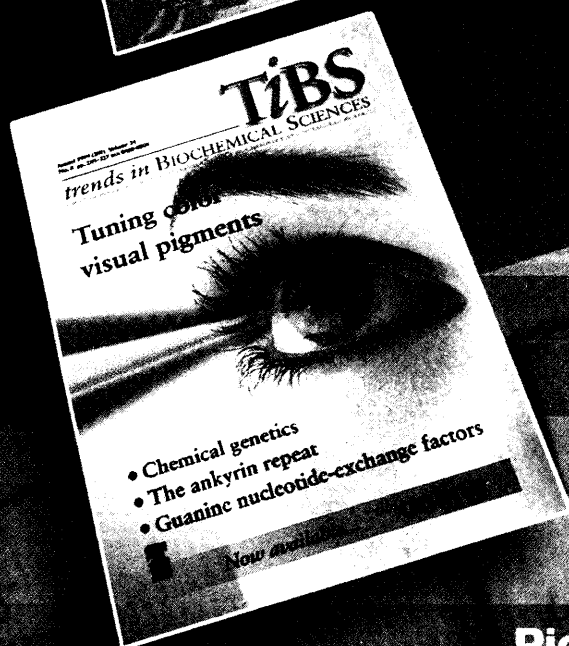
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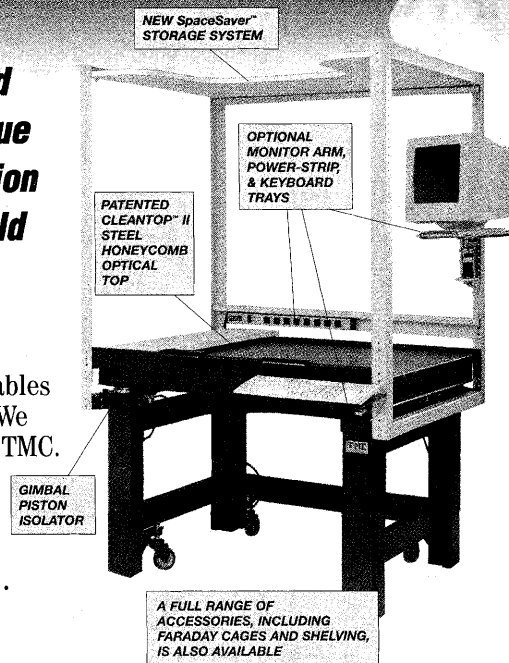
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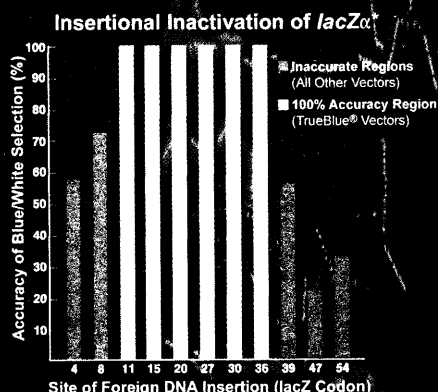


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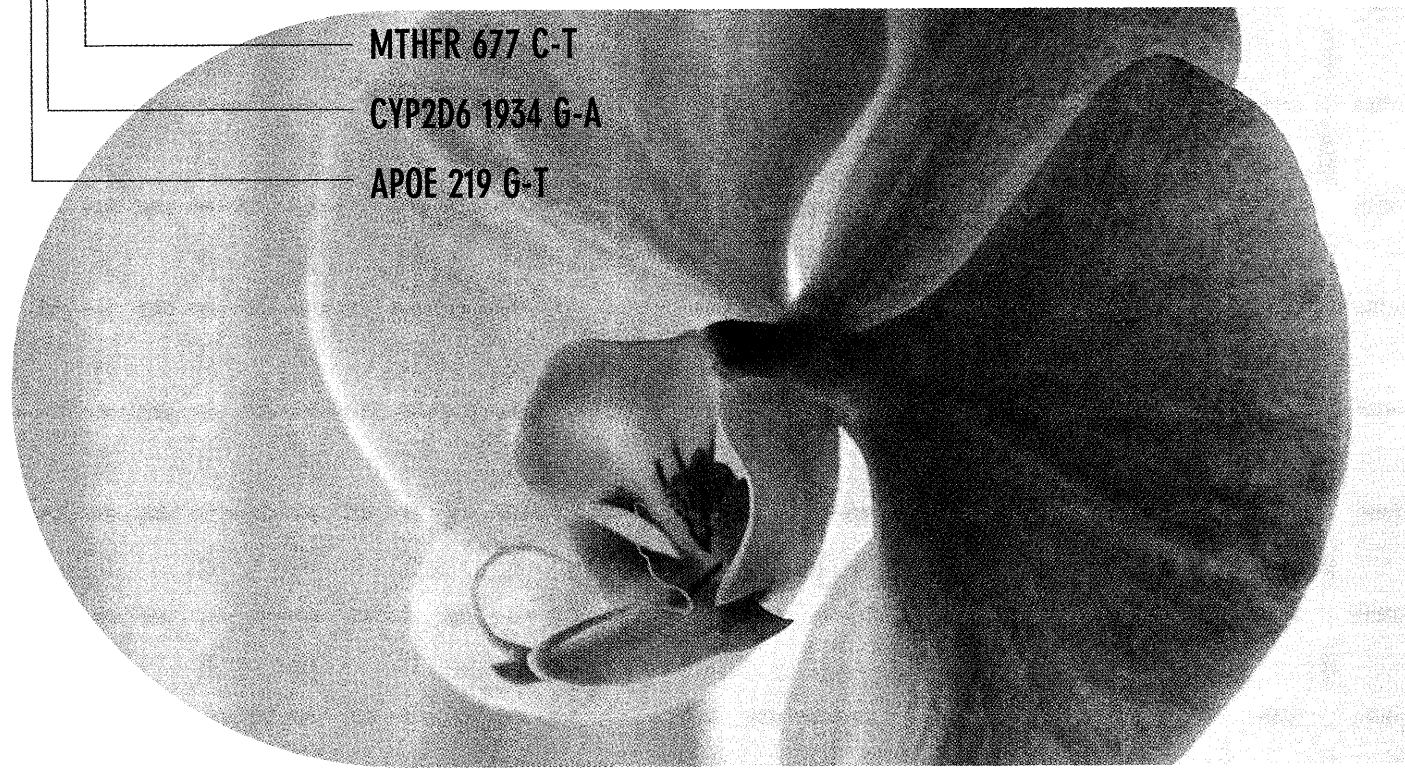
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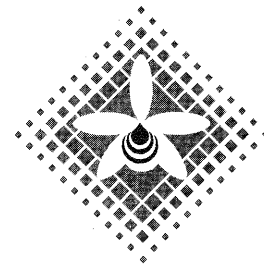
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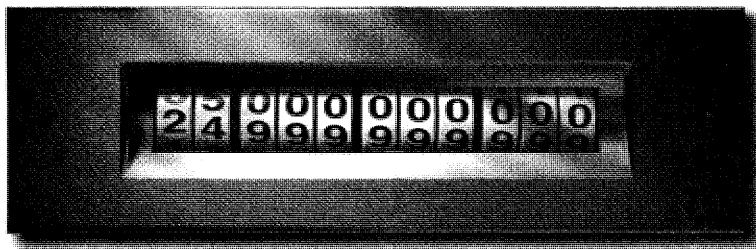
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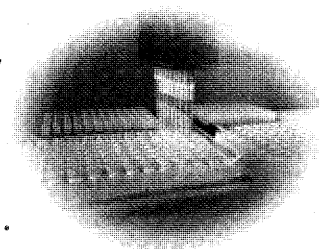
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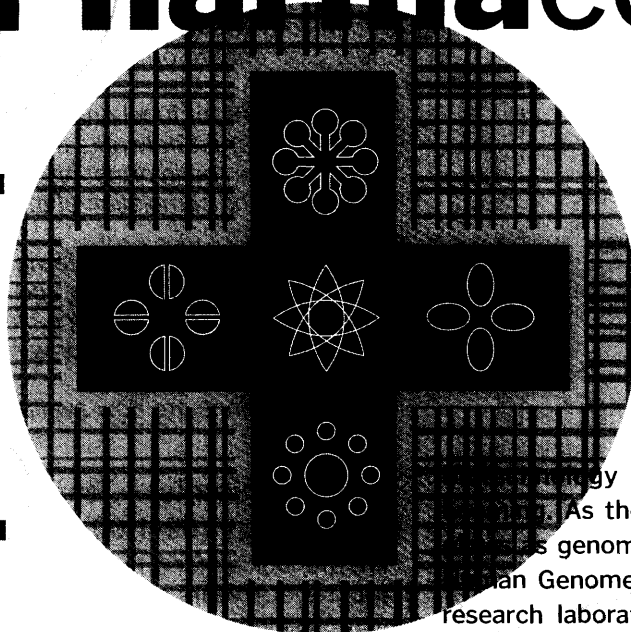
# CAREERS IN Biotechnology

## AN ABUNDANCE OF OPPORTUNITIES by Peter Gwynne

The biotechnology and pharmaceutical industries offer a diversity of career options for life scientists, both inside and outside the laboratory.

Here's a sampling of the possibilities.

# Pharmaceuticals



Biotechnology and pharmaceutical businesses are growing rapidly. As the results of advances in such subdisciplines as genomics and proteomics and efforts like the Human Genome Project begin to move from the basic research laboratory into specific applications, companies involved in drug research and related topics find a growing need for qualified life scientists.

Work in the laboratory represents a significant proportion of the new jobs that are now becoming available. A good degree in almost any branch of life science represents an effective passport for employment in biotechnology or pharmaceuticals. But the truly heavy demand focuses on three fields: genomics, proteomics, and bioinformatics. Scientists of any type who can gather and interpret data are the most valuable potential employees. Far too few academic training programs turn out individuals with qualifications in bioinformatics at present. So companies are prepared to invest training time and money in life scientists who show a facility with and eagerness to work on information technology.

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We are looking for a highly qualified scientist with several years of postdoc experience to be responsible for driving projects in ATC in the cardiovascular, gastrointestinal and inflammatory fields. You will be part of the ATC management team.

You will be responsible for contacts with scientists from the AstraZeneca R&D organisation world-wide to capture ideas about transgenic projects within respective areas. With the help from a team of specialists in molecular biology and transgenic technology you will be responsible for generation of these transgenic models in a timely manner. You will also be responsible for external contacts concerning use of transgenic technology in these fields. An important task will be to follow scientific conferences to capture new opportunities using transgenic technology within respective fields.

You have expertise in designing and making DNA constructs for transgenics and knockouts. It is an advantage if you have experience from



# available at Transgenic Centre

generating and analysing transgenic animals in the cardiovascular, gastrointestinal or inflammatory fields.

## **Mouse molecular geneticist (89-2/00)**

Phenotype driven approaches will be most important for identification of high quality targets in the post-genomic era. We seek a person with experience from genetic studies in mice. Experience from QTL analysis and positional cloning is required. Experience from ENU mutagenesis and studies of inbred strains are an advantage.

The selected person will be establishing internal mouse genetic capacity as well as running external collaborations. Setting up internal systems for speed congenics will also be a task.

## **Research scientist – Transgenic techniques and molecular biology (89-3/00)**

We seek a highly motivated PhD level scientist with experience from a laboratory generating transgenic animals. Expertise in microinjection of DNA and ES-cells is required. You must also have experience from designing and making constructs for both classical transgenic mice and "knockouts". Together with personnel already present at ATC you will perform pronuclear microinjections and ES-cell injections. You will also work with other senior staff at ATC to generate transgenic constructs and analyse transgenic mice. You will work with developing and testing inducible systems to be used in transgenic animals.

## **C. elegans scientist (89-4/00)**

Comparative genomics using model organisms is recognised in AstraZeneca as a key process toward the identification of networks of new pharmaceutical targets generated by genomic/

genetic studies. AstraZeneca is seeking a highly motivated scientist with post-doctoral experience in the field of *C. elegans* genetics. Your task will be to establish *C. elegans* capacity at ATC and to generate genetic modifications in *C. elegans*, performing genetic screens and analyse the resulting phenotype in relation to target genes of AstraZeneca's therapeutic interest. You will benefit from collaboration with an already established *C. elegans* group on site.

## **Postdoc – Mouse molecular genetics (89-5/00)**

We are looking for a highly qualified scientist to join our Oncology-Neurobiology Team. As a member of this research team, you will develop innovative Molecular Genetics technologies as well as characterize transgenic and knockout models. This position is for a two-year initial appointment.

You are an experienced molecular biologist, holding a Ph.D. in Oncology or Developmental Biology. An excellent understanding and experience in generating transgenic or knockout mice and in the phenotypical analysis of mice would be an asset.

For informal inquiries, contact Christophe Quéva, tel no +46 31-776 21 53 or e-mail [christophe.queva@astrazeneca.com](mailto:christophe.queva@astrazeneca.com)

The selected candidates will work in a team handling multiple projects simultaneously and therefore flexibility and well-developed organisational abilities are prerequisites. A strong desire to learn and apply new techniques and to instruct colleagues is required. You are also expected to maintain and extend contacts with external groups, both at universities and other research companies. You will work in an international team and good knowledge in English is required.

For more information please contact Jan Törnell, director ATC, [jan.tornell@astrazeneca.com](mailto:jan.tornell@astrazeneca.com), tel no +46 31-776 24 69.

Applications with full details should be marked with the respective number not later than June 9 to AstraZeneca R&D Mölndal, Human Resources, Att: Victoria Persson, SE-431 83 Mölndal, Sweden.

# Important Work.

## Life. We're Working On It.

Genzyme Corporation is doing important work in biotechnology and health care products, including those for renal function (Renagel™), cancer screening (Thyrogen™), the genetic disorder Gaucher disease (Cerezyme™) and surgical adhesion prevention (Seprafilm™). Our extensive research programs are developing treatments for other genetic, renal, and cardiovascular diseases as well as areas of oncology, using therapeutic protein replacement, cellular replacement, biomaterials, gene therapy and small molecules.

We continually seek outstanding scientific personnel from all disciplines to join us at our greater Boston locations of Framingham and Cambridge.

*The following positions are located in our Framingham, MA office:*

### **Scientist - Bioanalytical Development**

Work with a group of scientists to assist in assay development and optimization. Write SOPs and develop validation protocols, and conduct assay validation activities in conjunction with QC personnel. Author technical reports detailing assay development and validation. Background in protein chemistry with expertise in analytical techniques including HPLC and electrophoresis. A PhD in Biochemistry/Chemistry or related field is required along with 0-2 years of experience in assay development and troubleshooting, and the ability to function as part of a fast-paced multidisciplinary team. Strong computer skills a plus. **Job Code: 00-1025**

### **Scientist - Gene Transfer Research**

As a member of our synthetic vector Gene Transfer Research Group, you will interact productively in a challenging, rapidly-evolving, multidisciplinary environment to design and test novel 2nd generation synthetic gene delivery vehicles for in vivo applications. Experience constructing and testing synthetic gene delivery vehicles for in vivo use is essential. Qualified candidates will hold a PhD with emphasis in cell biology or biochemistry. In-depth understanding of cellular processes leading to uptake and expression of foreign genes would be a major advantage. **Job Code: 00-0923**

### **Veterinary Pathologist**

Supervise pathology/histology including consultation with scientists and preclinical managers. Provide significant pathology reading service and accurate reporting of findings. A DVM with board certification in Pathology is required; pathology experience in industry is preferred. Other qualifications or equivalent experience will be considered, but level of position will depend on experience and qualifications. **Job Code: 00-1260**

### **Scientist - Structural Protein Chemistry**

Perform analysis on solution structure of biologically active proteins, including use of circular dichroism, fluorescence, calorimetry, FTIR and analytical centrifugation. Correlate differences in structure with differences in biological function. Requires a PhD in Biochemistry or related field with 0-2 years of experience in analysis and characterization of proteins with a focus on relationship of protein structure to biological function. **Job Code: 00-1026**

### **Scientist - Cell Biology**

Study the effects of TGF- $\beta$  neutralizing agents on renal function and establish quantitative measures of renal and vascular function in animal models of renal injury and disease. You will also contribute to research efforts exploring molecular mechanisms of polycystic kidney disease. Qualified candidates will have a PhD along with 2-4 years of post doctoral experience in renal physiology and/or pharmacology with interest in vascular pathophysiology. **Job Code: 00-0681**

*The following position is located in our Cambridge, MA office:*

### **Scientist - Biomaterials**

Explore the attachment of polysaccharides to proteins and drug compounds. Responsible for preparation of protein conjugates that will help improve activity of therapeutic proteins and drugs. Experience with conjugation of biomolecules and protein isolation and characterization is required; experience in characterizing enzyme properties is preferred. Must have a PhD in Biochemistry, Bioorganic Chemistry, or related field. Good communication skills and the ability to work in a team oriented environment are essential. **Job Code: 99-1008**

Genzyme rewards success with an excellent compensation and benefits package, including 3 weeks' paid vacation, a 401(k) plan with a company match, extensive insurance benefits, and an Employee Stock Purchase Plan.

Interested candidates should forward resumes, indicating **JOB CODE**, to:

Human Resources Department  
Genzyme Corporation  
One Kendall Square  
Cambridge, MA 02139  
E-mail: [jobs@genzyme.com](mailto:jobs@genzyme.com)

[www.genzyme.com](http://www.genzyme.com)

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# SHARE THE VISION

*"In looking at the next several years, Wyeth-Ayerst's pipeline of products ranks among the best in the pharmaceutical industry."*

*— Joe Riccardo • Senior Managing Director • Bear Stearns*

*It's a vision of hope and of bettering the world. At each of our facilities, we're working to make this vision a reality. And, as part of American Home Products, one of the world's leading research-based companies, we deliver. If you're interested in a career in using your pharmaceutical and scientific knowledge to help us help the world, the following facilities have positions available:*

## Genetics Institute

At Genetics Institute, one of the largest developers of protein-based therapeutic products, our objective is to defend against the effects of debilitating diseases. From BeneFIX, a Hemophilia B blood coagulant, and Neumega, an agent that combats platelet deficiencies in cancer patients, to ReFacto, a recently approved therapy for Hemophilia A, we see our discoveries through the entire research and commercialization process, resulting in therapeutic treatments that improve the quality of life.

Ideal candidates have a BS, MS and/or Ph.D. Opportunities exist in **Cambridge and Andover, MA** and **St. Louis, MO** in the following areas:

### Scientific/Development/ Engineering

- GENOMICS & BIOINFORMATICS
- CELL & MOLECULAR BIOLOGY
- PROCESS ENGINEERING/ DEVELOPMENT
- PROTEIN PURIFICATION/  
CHARACTERIZATION
- FORMULATIONS/ANALYTICAL METHODS  
DEVELOPMENT
- MEDICINAL/BIOLOGICAL CHEMISTRY
- MEDIA SOLUTIONS PREPARATION
- MANUFACTURING/SUPPLY CHAIN

**GENETICS**  **INSTITUTE**

For more information on exciting job opportunities at Genetics Institute  
visit our website at: [www.genetics.com](http://www.genetics.com)

## Wyeth-Lederle Vaccines

We are the leader in new vaccine development, with campus-like facilities and cutting-edge technologies and equipment. In addition to being a leader in pediatric vaccines, our Research and Development pipeline includes new vaccines to prevent bacterial and viral diseases that affect people throughout their life. Multiple technologies are being brought to bear, including genomics, delivery technology, conjugation and cutting edge immunological assays. WLV is composed of research and development personnel who have established a strong individual identity within Wyeth-Ayerst.

Ideal candidates have a BS, MS, Ph.D. and/or M.D. in Molecular Biology, Immunology or Biochemistry. Opportunities exist in **Pearl River and Rochester, NY; Marietta, PA; and Sanford, NC** for Scientists in the following areas:

- BACTERIAL AND VIRAL VACCINE  
DISCOVERY RESEARCH
- CLINICAL RESEARCH
- BACTERIAL AND VIRAL DEVELOPMENT
- FORMULATIONS DEVELOPMENT
- PROJECT MANAGEMENT

For more information, please visit us at:  
[www.wyethjobs.com](http://www.wyethjobs.com)



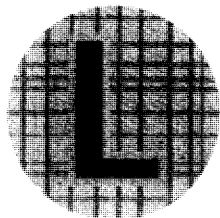
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Vaccines**

Protecting Families Through Immunization®

Please forward your resume to: **Wyeth-Ayerst, Reference OPSCI P.O. Box 7886, Philadelphia, PA 19101-7886. Fax in fine mode to: (610) 989-4854. Email: [jobs@RAMAIL1.wyeth.com](mailto:jobs@RAMAIL1.wyeth.com) (ASCII format, no attachments, subject: resume).**

Principals only. Equal Opportunity Employer, M/F/D/V.

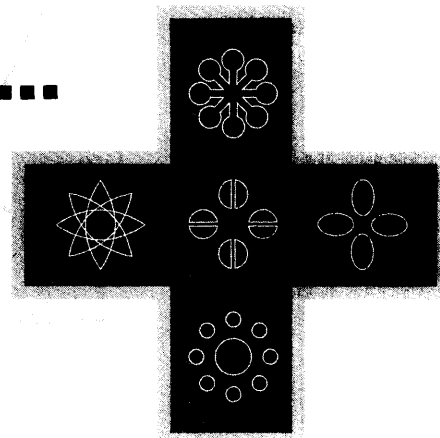
# Life science companies... seek chemists of all descriptions....



Life science companies also seek chemists of all descriptions. Physical chemists, analytical chemists, synthetic organic chemists, combinatorial chemists, medicinal chemists, and biochemists: All are welcome in an industrial world that must cope increasingly with the need to synthesize and test thousands of new molecules.

Life scientists are not restricted to the lab in the biotech and pharmaceutical businesses. A vast array of nonbench jobs in the two industries demands the type of knowledge and analytical thinking possessed only by those individuals with good degrees in life science. As biotechnology starts to put new drug candidates into the pipeline, demand is increasing for process scientists who can develop and oversee large-scale manufacturing methods. Clinical trials represent another large niche that can be filled only by well-qualified life scientists. So do quality assurance and regulatory affairs.

Another area with great potential is sales. Increasingly, some biotechnology and pharmaceutical companies are hiring scientists with Ph.D.s for their sales forces. The reason: They need to understand in great detail the products and services that they sell. Sales promises significant financial rewards. The average Ph.D. with two to four years of sales experience now earns more than \$100,000 annually. However, a Ph.D. is far from mandatory for selling. Most members of sales forces have less than a doctoral degree, although all have high income potential. Business development is another hot area outside the lab. In this case, companies usually expect a Ph.D. rather than a lower degree.



Students should not necessarily expect to move straight into a nonbench position out of college. Several biotech companies and pharmas prefer their scientists to sample life in the laboratory before making the move to other positions. After all, they reason, the transition from academic life to the very different environment of industry is difficult enough for scientists who move from one lab to another.

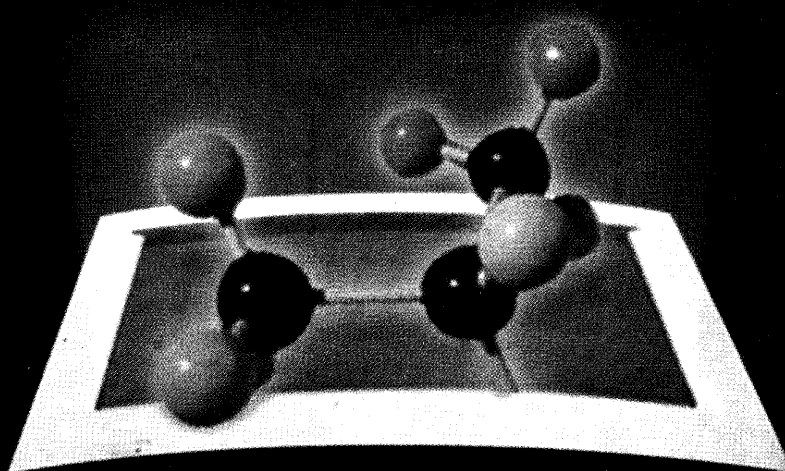
Indeed, all life scientists preparing to leave college for work in a biotechnology or pharmaceutical company should be prepared to undergo culture shock. Typically, industry requires more flexibility, more teamwork, and more skillful communication than academia. In addition, industrial labs are often more diverse in terms of scientific disciplines, geographic origins, and cultural backgrounds than a lot of academic laboratories.

Several companies look to the laboratory bench as the source of future managers. Several pharmaceutical and biotechnology companies expect future managers to spend time initially in the laboratory, to gain a solid background in the science, and to get a feel for the nature of corporate research. Increasingly, companies expect future managers to exhibit skills of persuasion; managers must frequently work in team situations with individuals who do not report directly to them.

Here, we discuss opportunities in the two industries, both inside and outside the lab, with a collection of experts. Individuals interviewed by *Science* include working scientists, human resources personnel, and the director of an academic biotechnology center.

**...all are welcome in an  
industrial world that must cope  
increasingly with the need to synthesize  
and test thousands of new molecules.**

CONTINUED ➞



## Advancing Science through Technology.

### Bioinformatics

Parke-Davis' Bioinformatics Team is searching for creative team players eager to apply bioinformatics to drug discovery. Our team is a matrixed group comprised of both bench-trained scientists (the Bioinformatics Research Team) and computer scientists (the Bioinformatics Technology Team). Due to expansion, we currently have the following openings:

#### Bioinformatics Technology Team (BTT) Leader JOB CODE: HS/00-0302SC

As the BTT Leader you will lead and maintain the high performance computing (HPC) infrastructure for our Bioinformatics research activities. Additionally, you will serve as a liaison between research scientists and scientific information technology groups, evaluate new HPC technology, and coordinate development and integration of software applications to provide genomic information optimized to accelerate the development and discovery of new drugs. Requirements include an advanced degree in either computer science, a biological or chemical discipline, or significant experience in science and information technology. Candidates should have a minimum of six years' experience in a combination of the following: project management and coordination, team development, relational database and object technology, and software development in a multi-platform environment. Experience with biological sequence data and analysis tools, management of a research computing facility, HPC, and scientific computation is also required. Experience in both IT and biological sciences or related fields is highly desirable.

#### Bioinformatics Technology Team - Computer Scientists JOB CODE: HS/00-0471SC

The Bioinformatics Technology Team is looking for two talented individuals to work in our exciting, high performance computing environment. Responsibilities include design, implementation, and deployment of Intranet Web applications supporting bioinformatics and genomics. Requirements include demonstrated experience with Perl, Python, or Java in a mixed WinNT/UNIX/Linux environment, data modeling and relational database design, and experience with Oracle or other RDBMS. Familiarity with sequence analysis software, XML, UML, object design, CORBA, graphics, and data visualization is a plus.

#### Bioinformatics Research Team - Target Informatics Scientists

We currently have two openings at the scientist or senior scientist level on our Target Informatics team. As a participant on our research team you will help accelerate ongoing drug discovery programs by mining genomic databases for relevant scientific information. Target informatics team members work as "in silico" scientists, helping to identify novel drug targets, analyze data for current drug targets, and design experiments which will lead drug discovery projects forward. Target Informatics team members must have an understanding of both the science behind drug discovery and the data found in current biological databases. Perl, web programming, and relational database experience are desirable. Applicants should be self-starters with superb team and communication skills. Experience in the analysis of protein and nucleic acid sequences is required, as is a PhD in biology, biochemistry, genetics, or a related field and 2+ years of postdoctoral experience. Positions available include:

#### Scientist/Senior Scientist in Antiviral Bioinformatics JOB CODE: HS/00-0431SC

Help lead the analysis and validation of key and novel targets our anti-viral program. Experience in HIV research is highly desirable.

#### Scientist/Senior Scientist in Antiviral Bioinformatics JOB CODE: HS/00-0433SC

Candidates should have expertise in the field of virology or immunology. This colleague will develop tools for automatic annotation of genes, as well as perform datamining of sequence databases.

We offer competitive salaries, outstanding benefits, and an environment that is conducive to professional growth. For confidential consideration, please forward your resume, indicating **JOB CODE**, to: **Parke-Davis, 2800 Plymouth Road, Ann Arbor, MI 48105. Fax: (734) 622-7617. E-mail: [HumanResources.resume@wl.com](mailto:HumanResources.resume@wl.com)**. Equal opportunity employer in action. Smoke-free work environment.



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Growth through Discovery

# "IT'S AS EASY AS TAKING A BREATH."

Inhale—Leading the *inhaleables* revolution.

Located in the San Francisco Bay Area, Inhale is developing the world's leading delivery platform for creating inhaleables. Inhale's novel system integrates customized formulation and proprietary fine-powder processing, packaging and inhalation device technologies. While our biotechnology and pharmaceutical partners make breakthroughs in new drug development, Inhale is developing technologies to deliver those therapies more efficiently to the people who need them.

Our partnership with Pfizer addresses pulmonary delivery of insulin. With Biogen, we are working on a non-invasive formulation of its leading, multiple sclerosis drug, AVONEX®. With our valuable corporate alliances and our broad product portfolio in various stages of development and commercialization, this is an exciting time to join the Inhale team.

## DRUG DEVELOPMENT RESEARCH ASSOCIATE

Prepare protein and peptide formulations to support drug development with emphasis on protein handling, solution chemistry, and stabilization of proteins in the solid state. Develop analytical methods and perform biochemical analysis and stability testing of protein formulations to support formulation development. Requires a BS/MS in Chemistry or related discipline, with 0-10 years' industrial experience. Experience in HPLC analysis, vibrational spectroscopy, and thermal analysis is also required. Job #6395CI

## SCIENTIST

Develop analytical methods, characterize peptide and protein structures in the solid state and in solution. Participate with project teams in the generation of reports and presentations. A Ph.D. in Chemistry or Biochemistry, with 0-5 years' industry experience is required (or a BS with 5-10 years experience). You must have a minimum of 2 years of method development experience for protein and peptide analysis. Job #5805CI

## MANAGER, REGULATORY AFFAIRS

Establish processes to ensure consistency between CMC documentation and manufacturing activities. Work with the Inhale QA organization to ensure successful pre-approval inspections, coordinate and prepare document packages for global regulatory submissions, audits, and inspections. Requires a BS/MS in a scientific discipline, with 4-8 years of hands-on Regulatory Affairs CMC experience, including experience supporting pre-approval inspections. You must have a working knowledge of ICH standards/cGMPs for drug products, with direct experience in preparing for and participating in US and international PAIs. Job #5665CI

## NON-CLINICAL STATISTICIAN

Provide statistical and experimental design support and leadership to the technical teams, and assist in authoring technical reports and external partner reports. Provide training in basic statistics and experimental design for analytical chemists, manufacturing personnel and engineers. An MS in Statistics or a related discipline is required (Ph.D. is a plus), with 5-10 years of experience in product development activities. Experience in pharmaceutical development is highly desirable. Job #7115CI

## PROJECT MANAGER

Insure projects are completed on time, on budget, and with a high degree of client satisfaction, and that the resources assigned are adequate to meet objectives. Review and revise project plans to accommodate changes in technical, marketing, or business information or objectives. Must have experience in managing interdisciplinary pharmaceutical drug development teams with demonstrated leadership and management ability. Prior leadership of device or drug development team is also required. A BS, MS, or Ph.D. (MBA a plus) in Biosciences or Engineering is required. Job #6595CI

## BUSINESS DEVELOPMENT TECHNICAL SUPPORT

### MANAGER

Provide technical expertise in areas of Product and Process Development with key partners at a technical and commercial level. Assist Business Development staff in identifying and assessing potential applications of company products to meet customer/partner needs. Identify potential technical issues with company technology relative to customer/partner requirements, and respond to customer/partner concerns. A Ph.D. or MS in Life Sciences or Engineering is desirable, with 8+ years experience in the pharmaceutical industry, and a proven track record within R&D and/or process development. Job #6085CI

## PLATFORM/PRODUCT LINE DIRECTOR

Manage all marketing and product management aspects of partner relationships and act as the primary partner liaison for commercial issues. Identify product/platform expansion opportunities, develop and maintain competitive product positioning, and implement product positioning and messages through partners. An MBA is required with 5-7 years of industry experience. Pharmaceutical or medical device product management expertise is preferred. Must have commercial product or product line management experience, and experience with full cycle marketing including product launch. Job #6935CI

## STAFF PROCESS DEVELOPMENT ENGINEER

Manage and coordinate a number of project teams involved in a variety of R&D initiatives leading to product launch. Direct and lead a diverse group of engineers and scientists to facilitate technology transfer between project teams, ensuring a high level of dialogue and focus to meet the project goals. A MS in a scientific discipline, Pharmacy or Engineering is desirable, with 10+ years of industry experience, with a proven record within R&D. Job #6725CI

## QA DIRECTOR, DRUG DEVELOPMENT

Establish and formalize quality assurance policy, procedures and activities in support of the drug development process. Work with internal teams and departments to create a viable system that will document the development activities and scale-up process to meet current industry standards, regulatory requirements and pharmaceutical partner expectations. Requires 15+ years of experience in the pharmaceutical industry in quality assurance, drug development or regulatory affairs. Must have a working knowledge of FDA regulations, cGMPs and the IND/NDA process. Job #5775CI

## MANAGER, QC STABILITY

Work with project teams and partners to develop FDA compliant ICH stability programs for NDA registration batches. Develop appropriate stability protocols to support tox and clinical materials expiration dating. Requires a BS/MS, with 5+ years of experience in administering stability programs in the pharmaceutical industry. You must have extensive knowledge with ICH and FDA requirements for stability programs. Job #5935CI

## ASSOCIATE DIRECTOR, QUALITY ASSURANCE

Direct and maintain systems/documents related to Quality Compliance and Validation according to requirements for regulatory compliance. Manage the associated department and supervise its staff. Insure the smooth operation of the Compliance and Validation functions. Requires a BS/MS in Biology, Microbiology or related sciences, with 5+ years in a QA management level position, and with 15+ years of experience in an FDA industry with pharmaceutical and/or biological products. Job #6075CI

## ASSOCIATE DIRECTOR, QC METHODS

Manage the QC Methods group to provide analytical support to the drug development teams. Interact with drug development and QC Operations to develop appropriate and robust analytical methods for QC release and stability testing. Prepare SOPs for all test methods, and oversee release and stability testing for tox and early stage clinical trial materials. A Ph.D. or equivalent, with 10+ years of experience in the pharmaceutical industry is required. You must have a demonstrated ability to build and manage an analytical department. Job #615CI

Inhale offers excellent benefits and an informal, friendly work environment. Salary commensurate with experience. EOE.

Please submit your resume on-line at: [www.inhale.com/careers](http://www.inhale.com/careers) or send resume and cover letter to: **INHALE THERAPEUTIC SYSTEMS, Attn: Human Resources, 150 Industrial Road, San Carlos, CA 94070.** Please reference Job Number in all correspondence.

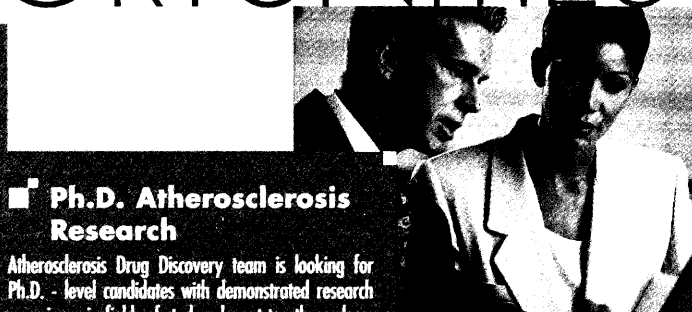
inhale

FEWER

CAREER

# OPPORTUNITIES

As part of Lilly Cardiovascular Research, you will be involved in finding ways to help patients lead better, longer lives through innovative pharmaceutical products. You will become a member of a multidisciplinary drug discovery team focused on thrombosis, atherosclerosis and congestive heart failure. We are looking for dedicated scientists of high caliber, with enthusiasm and proven effectiveness as experimental biologists and a keen interest in drug discovery and development.



## ■ Ph.D. Atherosclerosis Research

Atherosclerosis Drug Discovery team is looking for Ph.D. - level candidates with demonstrated research experience in fields of study relevant to atherosclerosis. One particular area of interest is in lipoprotein metabolism, including isolation and characterization of lipoproteins, lipid analysis, in vivo lipoprotein clearance studies, enzymology related to lipoprotein metabolism, mechanisms of lipoprotein modulation, and studies of atherosclerosis in animal models. Please reference Source Code ADSCMCV01.

Candidates are also sought with expertise in nuclear hormone receptors and gene regulation, and metabolic regulation. Scientist with strong credentials in other areas of research relevant to atherosclerosis will also be considered. Please reference Source Code ADSCMCV02.

Scientists joining this team will be expected to participate in ongoing research projects and provide new directions for drug discovery research. The qualified candidates will have the ability to integrate scientific knowledge and experience into research that is relevant to atherosclerosis drug discovery.

## ■ Ph.D. and /or M.D. Electrophysiologist

We are seeking a self-motivated researcher with a M.D. and or Ph.D. degree to conduct innovative research in the mechanism(s) of cardiac arrhythmogenesis as well as the characterization of drug interactions with known ionic channels. Basic familiarity with computer-based data acquisition and cloning of ion channels is a prerequisite. The successful candidate will also possess a broad knowledge of contemporary ion channel electrophysiological techniques and be well versed in the translation of cell-based assay results into the pharmacology of drug candidates in the intact organism. The research will involve independent as well as collaborative work with an established team of cardiovascular scientists and toxicologists. Please reference Source Code ADSCMPH05.

## ■ Ph.D. Thrombosis Research

We are seeking a Senior Investigator with a Ph.D. and 7+ years experience in the field of blood coagulation and fibrinolysis to join our research team. This candidate will assume a strong leadership role and provide scientific direction and insight into discovery research efforts focused on the identification of novel antithrombotic strategies and therapeutics. We expect the candidate to conduct creative, independent research focused on the identification of novel antithrombotic genes and targets, the elucidation of new mechanisms and pathways and the discovery of innovative therapeutics. Qualified candidates will have the ability to integrate a strong scientific knowledge in the field of thrombosis and fibrinolysis into problem solving approaches relevant to drug discovery. The candidate must exhibit strong leadership skills, scientific independence and creativity balanced with strong interpersonal skills and the ability to contribute effectively to team oriented drug discovery. Please reference Source Code ADSCMCV05.

## ■ BS/MS Cardiovascular Research (Biochemistry, Cell and Molecular Biology, Physiology and Pharmacology)

Multiple associate positions exist in the cardiovascular research group in scientific disciplines related to the research positions described above. Please reference Source Code ADSCMCV01.

## ■ Postdoctoral Scientists

The Cardiovascular Research group is looking for creative scientists who have recently completed a Ph.D. in biochemistry, molecular biology, cell biology or related field. Experience in signaling pathways and cardiovascular biology is a plus. Lilly post-doctoral scientists gain sound practical experience and focused training that will significantly expand their scientific knowledge and abilities in drug discovery. Please reference Source Code ADSCMCV06.

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# *dreams made real.*

## ***Dreaming of a new job on the cutting edge of biotechnology***

Agilent Technologies is expanding its Bioscience Products business to develop the future of DNA microarray technology. Our products and services are expected to revolutionize the way pharmaceutical companies conduct disease discovery and target validation. Agilent uses inkjet-printing technology to provide a high degree of flexibility, speed, and quality in DNA microarray design and manufacture, enabling researchers to access genetic information faster and more cost effectively. Your expertise and commitment can earn you a place on our team. At Agilent, we'll help make your dreams real.

### **Biochemist/Molecular Biologist**

Work with internal and external collaborators, develop DNA microarray technologies and products for gene expression monitoring applications. Responsibilities include development and validation of DNA microarray technologies using quantitative hybridization and fluorescence based methods. Significant experience and interest in one or more of the following areas is highly desirable; microarray technology, quantitative nucleic acid hybridization, fluorescent labeling technology, instrumentation, experimental design. Additional responsibilities include statistical analysis of DNA-based assay performance and directing 1 or more technicians. Position requires a Ph.D. in Biochemistry or a related discipline with excellent statistical, analytical and organizational skills and experience in DNA/RNA manipulation. Req. 686954 or 686877

### **Oligonucleotide Microarray Development Scientist**

Contribute to and coordinate a project in oligonucleotide array generation and optimization. Significant experience and interest in the following areas is highly desirable; microarray technology, quantitative nucleic acid hybridization, conjugation chemistry, interfacial processes, fluorescent probes/labels, instrumentation, experimental design, statistical data analysis. Position requires a Ph.D. in Biochemistry, Molecular Biology or a related discipline, and substantial experience in an R&D environment. Excellent communication skills required. Req. 685006

### **Chemistry & Biology Manufacturing Development Manager**

Lead a team to develop, characterize, monitor and continually improve the robustness and quality of consumable manufacturing process chemistries and manage the transfer of chemical processes from R&D into scaled production. Position requires a MS/Ph.D. Chem./Molecular Biology/BioChem/ChemEng with 5+ years' project/team management experience with demonstrated success in chemical process development. Req. 666390

### **Quality Function Manager**

Lead the BSP Quality Function in developing and maintaining our business quality system, developing effective quality strategies for all of our Microarray products, and providing the QA/QC chemical assay support to our new product development and product manufacturing efforts. Position requires a MS Chem./BioChem and 5+ years' experience in implementing and maintaining a dynamic ISO9001 quality system. Req. 681121

### **Collaborations and Strategic Planning Manager**

Manage the development of strategic relationships and planning for the Bioscience Products business. Our products and solutions encompass a wide variety of technologies and disciplines including bioinformatics, reagents, DNA microarrays, applications, instrumentation and support. This role involves the development of partnerships and relationships for execution of our business plans including elements of licensing, product supply, collaborative research, co-marketing, and co-sales. Position requires a MS in Biochemistry, Chemistry, Genetics, or equivalent, Ph.D. preferred, and 8+ years' solid experience in developing relationships and strategic business plans for the pharmaceutical or biotech industry. Must have strong communication and leadership skills, and a proven track record of business management. Req. 681706

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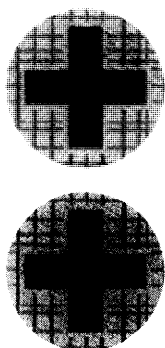
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## “The big question for pharma is whether or not to get involved in creating new technology as well as buying it.” Don Nelson

### **PALO ALTO, CALIFORNIA:**

“What is probably driving most organizations right now is trying to make sense of the vast amounts of data available in genome sequences,” says Ken Herfert, vice president of process sciences for industrial biotechnology company Genencor International. “The ability to interpret data is rapidly becoming more limiting than our ability to generate it, largely as a result of the Human Genome Project. Like everyone else, we’re looking for bioinformatics experts and functional genomics people. Rather than having them just evaluate data, we want them to help us understand what questions we can and can’t ask.”

Academe provides only a limited supply of bioinformatics experts. “So we actively encourage our internal people to retrain and to learn new sets of skills when appropriate,” says Doug Crabb, Genencor’s senior director of research operations. “We expect our scientists to continue to learn and develop skills, both scientific skills and more general ones,” adds Herfert.

More general skills can be applied to jobs outside the laboratory. “We have some science people on the business side,” says Herfert. “Product management people work with R&D to bring new biotechnology tools to market and with customers to bring those tools to bear on customers’ unmet needs. You can go into this field via the lab or come straight into it from



**Doug Crabb**

college.” The company also hires life scientists with Bachelor’s degrees as product technicians and Ph.D.s for business development. “We are a technology-based company, and our staff should understand science whether they are in the R&D laboratory or outside it,” adds Crabb.

What generic qualities does Genencor expect of its life scientists? “We look for nonscientific skills in just about everybody we hire,” Crabb continues. “Communication skills are an absolute necessity, as we work in teams. You should also be mentally flexible, as the world will change rapidly. And be a good collaborator; in our R&D

organization we have an extremely diverse group of people in terms of geography, age, and approach to science. We look for people who are passionate about science. They want to grow and stay at the cutting edge of science.”

How should students prepare for an industrial job, inside or outside the laboratory? “The first step that an individual should take is to understand the difference between academic and industrial settings,” says Herfert. “Most academics don’t have a clue about what they need to know in a nonacademic setting. So it’s important to understand what the job is going to be. Talk to friends — and strangers — in similar positions in industry about what will be expected of you.”

### **GROTON, CONNECTICUT:**

“The big question for pharma is whether or not to get involved in creating new technology as well as buying it,” says Don Nelson, vice president of human resources at Pfizer Global Research and Development. “We’ve been building up our strength in genomics and the biotechnology area. We have an in-house capacity, but we’ve been very active in licensing. As genomics becomes more translational or applied, we’ll look at bringing more people in-house.”



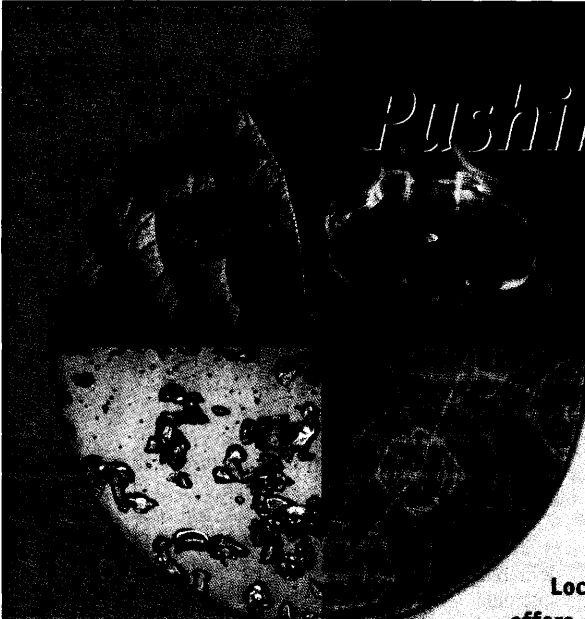
**Don Nelson**

Pfizer also seeks scientists with expertise in what Nelson calls “new chemical technologies that allow scientists to work more rapidly,” such as high-throughput screening and combinatorial chemistry. “We have a continued need for individuals with a solid background in synthetic organic chemists,” he adds.

Beyond the lab bench, licensing has become a significant factor in the company’s research effort. “We need people who can look at what research is being done elsewhere and see where the opportunities lie to build our own portfolio, particularly in areas where, no matter how fast we grow, the science grows faster. Combining academe and small biotechnology firms to identify where licensing opportunities exist requires people with a scientific background and lab experience. They must have good communication skills and a comfort level for getting along with people.”

The laboratory also represents the starting point for a managerial career at Pfizer. “It’s always been a big part of our culture to spend time in the lab first,” says Nelson. “You don’t move onto the management ladder until you’ve demonstrated a level of scientific and leadership achievement that comes from directing project and lab work for a period of time. We don’t want people managing who haven’t experienced the work in the lab.”

CONTINUED ➞



# *Pushing the Boundaries of Biotechnology*

Genencor International is pushing the boundaries of biotechnology in exciting new areas such as consumer products, specialty chemicals, agriculture and healthcare. Our products are based on biological systems that employ nature's elegance and flexibility to solve consumer problems. Join us at the center of the biotechnology revolution.

Located in Palo Alto, our state-of-the-art Technology Center offers an exciting, people-oriented atmosphere that fosters teamwork and individual achievement. We continuously seek talented, energetic, creative professionals who, like us, are "Innovative by Nature." Genencor International is a fast-growing company. We routinely hire candidates at all levels in numerous disciplines. Currently, we are seeking to fill the following positions:

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- Bacterial/Fungal Molecular Biology
- Cell Biology • Biochemistry/Enzymology
- Fermentation • Immunology
- Directed Evolution

## **Research Associates/Assistants**

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- Cell Biology • Recovery • Enzymology
- Protein Biochemistry • Directed Evolution

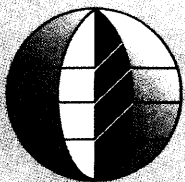
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**Senomyx** (formerly Ambryx) is dedicated to becoming the world leader in the discovery & commercialization of products & services related to olfaction & taste. Senomyx is utilizing the striking new advances in our understanding of the molecular basis of chemosensation to develop new commercially valuable compounds. Receptor-based biology, combinatorial chemistry, high-throughput screening, & informatics will be integrated to revolutionize the discovery of new products.

**Senomyx** is a privately held company that occupies a 15,000 sq ft facility on North Torrey Pines Road, in the heart of the San Diego scientific community & has established a world-class group of scientific advisors & consultants. The Company, led by Dr. Lubert Stryer, Chairman and CSO and Paul A. Grayson, President and CEO, is in the process of assembling a winning team.

*We are seeking high quality, motivated & team oriented individuals for the following areas:*

**BIOLOGY / CHEMISTRY / INFORMATICS & RESEARCH ASSOCIATES**

### BIOLOGY

#### Cell Biology Senior Scientist – Signal Transduction & Assay Development

(Job Category - AD)

**Senomyx** seeks a Senior Scientist to lead a program aimed at the heterologous expression of G protein-coupled receptors & development of functional cellular and/or biochemical assays. You will develop & optimize methodologies for the expression & assay of candidate chemosensory receptors as part of a team focused on the identification of small molecules that modulate smell & taste receptors. Candidates should have a Ph.D degree in Biology or a related field & 2-4 yrs of industrial exp w/mammalian cell biology, signal transduction & assay development.

#### Head, High-throughput Screening

(Job Category - HHTS)

**Senomyx** seeks a Senior Scientist to establish & lead a high-throughput bio-molecular screening group. The HTS group will participate in the discovery of novel compounds that modulate receptors involved in taste & smell. Prior exp w/the development & mgmt of automated high-throughput cellular and/or biochemical assays is required. Ability to manage the storage & utilization of large chemical libraries is highly desirable. The successful candidate will be responsible for hiring & mgmt of the HTS group. Candidates should have a min of a Masters in Biology, Chemistry or relevant field and 4+ yrs of industrial exp w/high-throughput assays.

### CHEMISTRY

#### Synthetic Chemists

(Job Category - SC)

**Senomyx** seeks synthetic organic chemists to create receptor-targeted small molecules that modulate smell & taste. Exp in the synthesis of peptide and/or synthetic combinatorial chemical libraries that relate to G protein-coupled receptors is particularly relevant. In addition, exp in the synthesis of volatile compounds is highly desirable. Positions are available at the Scientist & Senior Scientist levels. Candidates should have a Ph.D in Chemistry. Prior industrial exp is required for the Senior Scientist positions.

#### Analytical Chemists

(Job Category - AC)

**Senomyx** seeks analytical chemists to evaluate synthetic chemical & natural product libraries to be used in the discovery of novel compounds that modulate smell & taste. Exp in the analysis of chemical libraries by liquid or gas chromatography & mass spectrometry is particularly relevant. Positions are available at the Ph.D & BS/MS levels. Candidates should have 2-4 yrs relevant industrial experience.

### Head, Analytical Chemistry

(Job Category - HAC)

**Senomyx** seeks a Senior Scientist Chemist to direct the Analytical Chemistry group. Relevant industrial exp in the evaluation & tracking of synthetic chemical libraries by LC, GC, and/or MS is required. Additional exp in the separation & analysis of natural product mixtures is particularly desirable. The successful candidate will be responsible for hiring & mgmt of the Analytical Chemistry group. Candidates should have a Ph.D in Chemistry or Biochemistry & 5+ yrs of relevant industrial exp.

### INFORMATICS

#### Senior Scientist

(Job Category - BI)

**Senomyx** seeks a Senior Scientist to develop a program in bioinformatics-based gene discovery. You will mine sequence databases in an allied effort w/molecular & cell biology programs to discover human genes involved in smell & taste. Additional responsibilities include development of an in-house bioinformatics database, integration of gene sequence information & biological assay data. Requires a Ph.D in Computational Biology, Biophysics, Mathematics or relevant field & 4+ yrs of hands-on exp w/sequence analysis algorithms & the integration of bioinformatics tools for genomics applications. Exp w/Oracle & good programming skills (C, Java, Perl, & SQL) are highly desirable.

#### Chemoinformatics Senior Scientist

(Job Category - CI)

**Senomyx** seeks a Senior Scientist to develop a program in chemoinformatics. You will establish an integrated system for the acquisition & storage of structural & biological data resulting from the screening of chemical libraries for small molecules that modulate receptors involved in taste & smell. Additional responsibilities include development of web-based analysis & visualization tools & linking the chemical informatics databases w/the bioinformatics databases. Requires a Ph.D in Computer Science, Chemistry, or relevant field & 4+ yrs of relevant industrial exp w/chemical databases. Exp w/Oracle & ISIS is preferred & good programming skills (C, Java, Perl, & SQL) are highly desirable.

### RESEARCH ASSOCIATES

#### Biology

(Job Category - B)

**Senomyx** has a number of available positions for Research Associates w/exp in molecular biology & functional analysis of genes. You will participate in the identification & functional analysis of genes & cDNAs encoding taste & smell receptors. Demonstrated expertise in several of the following techniques is required: cDNA libraries, single-cell RT-PCR, mammalian cell culture, DNA transfections, generation of stable cell lines, cell-based assays, protein expression using the baculovirus system & purification of expressed proteins. Exp in G protein-coupled receptor biology is a plus. Requires a Bachelors or Masters in Biology, Biochemistry, Chemistry or other relevant field & at least 2 yrs of hands-on exp in a lab setting.

#### Chemical Library Acquisition

(Job Category - CLA)

**Senomyx** seeks an individual to coordinate the acquisition of chemical libraries from external sources & to manage the tracking & storage of these libraries. Exp w/the mgmt of chemical libraries & compound databases is preferred. Candidates should have a BS or MS degree in Chemistry or Biology & 1-3 yrs of industrial experience.

**Senomyx** provides equal opportunity w/o regard to an applicant's race, color, sex, sexual orientation, national origin, age, physical or mental disability, medical condition, religion, marital status, veteran status, or any other protected characteristic.

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## Discovery Technologies

### **Automated Screening Technologist:**

B.S./M.S. with 2-3 years laboratory experience (assay design preferred) to optimize screens for automation and prosecution of automated screens including data analysis. High degree of interaction with screen development, disease management areas, automation technologies, compound management and informatics. Experience in automated high-throughput technologies for receptor binding, fluorescence-based assays, SPA and reporter screens required. Familiarity with liquid handling automation, data analysis and archiving tools such as ActivityBase, Brioquey, and Excel required. Basic computer programming skills desired, not essential. **Code: PRMA188SI**

**Ion Channel Molecular Biologist:** Ph.D. with minimum of 2 years postdoctoral experience to participate in creative technology development for ion-channel drug discovery and to the execution of lead discovery programs focused on ion channel targets. Experience with cloning, functional expression, and characterization of ion channels is required. Demonstrated skills in ion channel pharmacology, electrophysiology, and live cell imaging techniques strongly preferred. **Code: PRMA188DW**

## Virology

### **Associate Research Molecular**

**Virologist/Biochemist:** B.S./M.S. with 2-4 years experience to design and conduct antiviral intervention assays and collaborate with other research groups in the development of novel antiviral agents. Prior training in the area of Biochemistry, Molecular Biology or Virology is highly desirable. Previous industry experience is a plus. Willingness to work with HIV is a prerequisite. **Code: PRMA188PL1**

**Biochemist/Molecular Virologist:** Ph.D. with 3-4 years postdoctoral or industrial experience to define unique viral targets for antiviral intervention and to collaborate with other research groups in the design and development of novel antiviral agents. Strong publication record, extensive laboratory experience are required. Prior experience working with viruses is a plus. Willingness to work with HIV is a prerequisite. **Code: PRMA188PL2**

## Discovery Screening

**Assay Design Scientists:** B.S./M.S./Ph.D. with 2-4 years experience to develop, optimize and implement cell-based assays for high-throughput screens for drug discovery. Solid background in biochemistry, cell biology and molecular biology is required. For Ph.D. position, experience with nuclear hormone receptors required. Experience with a broad range of assays and detection formats (e.g., radiometric, fluorescence, cellular reporters). Knowledge of automation and/or computer database analysis will be seen as a significant advantage. **Code: PRMA188MP**

## Lead Discovery

### **Miniaturization - Biologist/Instrumentation**

**Specialist:** B.S./M.S. with 5 years experience to evaluate a wide range of cutting-edge liquid dispensing and detection instruments and associated software to support an assay miniaturization program. Knowledge of programming and use of liquid dispensing instruments and microtiter-plate detection instruments is essential; practical experience with enzymatic or receptor-binding assays is required. Experience in high-throughput screening and miniaturized assays desired. **Code: PRMA188FC**

## Microbiology

**Sr. Research/Clinical Microbiologist:** Ph.D. with 2 years clinical microbiology or postdoctoral experience to oversee microbiology support for anti-infective clinical trials, collaborate with research groups to develop/conduct studies to characterize drug candidates, and set up molecular assays for bacterial speciation/strain differentiation. Strong clinical microbiology/minor molecular biology or strong molecular biology/minor clinical microbiology skills required. **Code: PRMA188JFT**

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### RESEARCH SCIENTIST - BIOCHEMIST/ENZYMOLOGIST

We are seeking a BioChemist/Enzymologist to join our BioChemistry group. Responsibilities would include purification and kinetic characterization of enzymes, assay development, and the application of multiple technologies to study ligand binding such as protein fluorescence, CD spectroscopy and BiaCore, Etc. Qualified candidates will possess a Ph.D. in BioChemistry and have completed post-doctoral studies. Experience in enzymology is a must and a working knowledge of biophysical techniques is a significant advantage. Computer skills on both Mac and PC platforms and exceptional problem solving and communication skills are also required. The successful individual will work within a multidisciplinary team to discover novel therapeutics utilizing a structure-based approach to drug design. Job Code - 135/SM

### SCIENTIST - VIROLOGY

We are seeking experienced Ph.D., M.S. and B.S. level scientists to join an expanding virology team. The overall responsibility will include planning and implementation of research aimed at the discovery, evaluation and development of novel therapeutic anti-viral agents. Candidates should have demonstrated ability in basic virology techniques, cell culture, and assay development as well as expertise in molecular biology and biochemistry laboratory techniques. Experience with infectious HIV would be advantageous. In addition, candidates must have the desire to work in a multi-disciplinary team and have an enthusiasm for discovery research. Job Code - 125/AP

### RESEARCH SCIENTIST - PHARMACOLOGY

We seek an experienced scientist to join our Pharmacology Research team. This individual will be expected to perform experimentation and/or direct internal and external collaboration efforts involved in the implementation of the strategies to discover, identify and evaluate pre-clinical anticancer compounds and/or support the clinical development of anticancer drugs. Experience in cancer drug development with an understanding of the molecular mechanisms of drug resistance and drug-drug interactions is desirable. Qualified candidates will possess a Ph.D. in Pharmacology or Molecular Biology with a current and comprehensive knowledge of cancer chemotherapy with molecular biology and/or biochemistry. Job Code - 125/TB

### RESEARCH SCIENTIST - STRUCTURAL BIOINFORMATICS

An exciting Ph.D.-level position is available to apply state-of-the-art computational and informatics techniques to identify and analyze novel drug targets. The ideal candidate will have a proven track record in computational and structural biology, including experience with sequence databases, multiple sequence alignment, protein families, phylogenetic trees, and remote homology detection, as well as structure databases, structural alignment, threading and comparative protein modeling. The candidate should also have experience with functional annotation and biochemical pathways. Perl, web programming, and knowledge of relational databases are desirable; familiarity with drug discovery, while desirable, is not required. Excellent communication and interpersonal skills are a must, as this person will become a critical member of an interdisciplinary team. Bring a sense of adventure and the desire to enlist the full range of computational and informatics tools to fight human disease. Job Code - 120/PR

### RESEARCH SCIENTIST - CELL BIOLOGY

We seek a talented Ph.D. level Scientist to study genes involved in functional interaction of human cells with pathogenic viruses. The ideal candidate will have a solid scientific background with successful post-doctoral experience in cell biology, or related area. Familiarity with approaches of functional genomics and target validation would be advantageous, as well as the ability to communicate in a multi-disciplinary environment. Job Code 102/CB

Agouron offers competitive compensation and benefits packages, and the opportunity for professional development and advancement. Please send your resume, referencing above code, to: Agouron Pharmaceuticals, Inc., 10777 Science Center Drive, San Diego, CA 92121; email: jobs@agouron.com. EOE

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### Signal Transduction

A postdoctoral position is available to study the role of signal transduction pathway, particularly kinase pathway, in a variety of CNS disease model systems. These model systems include in vitro models (e.g. cell line and primary culture cells) and in vivo systems (transgenics). Experience in kinase signal transduction is required and a background in pharmacology and cell biology is preferred.

### Neurogenesis in the Adult Brain

The postdoctoral position will focus on examining the regulation of neurogenesis in the adult brain. The successful candidate will have experience in at least one of the following areas: Histology, Immunohistochemistry/Immunocytochemistry, or Neuroanatomy.

### Pharmacology of Neurotrophin Gene Expression

The postdoctoral fellow will study novel approaches to regulation of neurotrophin gene expression. Understanding the control of neurotrophin gene expression may provide novel approaches to treat neuropsychiatric disorders. The candidate should be well grounded and possess basic skills in molecular biology with an interest in acquiring skills in primary cell culture, in situ hybridization, whole animal and receptor pharmacology.

### Receptor Pharmacology/Molecular Biology

This position will focus on the molecular pharmacology of metabotropic glutamate receptors. The successful candidate will have proven experience in receptor pharmacology and will be expected to use molecular techniques to explore ligand binding and receptor coupling of cloned receptors expressed in mammalian cells. Prior experience in molecular biology would be an advantage, as would a proven ability to collaborate and successfully apply novel techniques.

### Behavioral Pharmacology

A postdoctoral position is available to conduct behavioral and pharmacological studies in non-human subjects. The fellow will conduct basic research studies on the involvement of excitatory amino acid receptor agonists and antagonists in epilepsy, learning and memory, schizophrenia, and/or analgesia. Applicants must have a Ph.D. in pharmacology, psychology, neuroscience or a closely related field.

### Molecular Pharmacology of Neuropeptide Receptors

A postdoctoral position is available to study the peptide recognition and signaling mechanisms of neuropeptides with their receptors. The ideal candidate will have experience with molecular cloning, site directed mutagenesis, in situ hybridization, receptor binding and second messenger assays. Studies will include structure-function studies of the receptors for Neuropeptide Y as well as studies directed toward understanding their brain distribution and function.

### Electrophysiology of Prefrontal Cortical Neurons

A postdoctoral position is available to study the modulation of local circuit synaptic interactions in the prefrontal cortex. Candidates will be using: whole cell patch-clamp or intracellular recordings (current and voltage clamp) in both interneurons and pyramidal neurons in rat brain slices, immunocytochemical and in vivo extracellular single-unit recording with microiontophoresis techniques.

### Molecular Pharmacology of Neurotransmitter Transporters

Postdoctoral positions are available to study (1) the role of neurotransmitter transporters in schizophrenia, learning and memory and (2) the role of cyclic nucleotides and nitric oxide in regulating neurotransmitter transporters. For position 1, the candidate should have basic molecular biology skills with an interest in developing antisense and transgenic animal models. For position 2, the candidate should have experience in signal transduction or protein trafficking and an interest in acquiring skills in organotypic brain slice cultures, molecular biology and whole animal pharmacology. Candidates must have a strong background in biochemistry, pharmacology or molecular/cell biology.

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However, managers need more than an understanding of the science. "We're becoming increasingly aware of a crucial second set of skills in the management area," says Nelson. "One can make the argument that what makes good bench scientists doesn't necessarily make good managers. We think it's essential to work hard with people here to make good managers inside and outside the laboratory. The value of the work they do depends on their ability to develop relationships with people who do not report to them. Persuasion skills are increasingly important."

The company has a dual career ladder and allows time for bench scientists to prepare for a move from the scientific to the managerial ladder. "We hire a lot of people directly out of school and expect them to stay in the lab for a few years," explains Nelson. Supervisory responsibility, however, is part of a scientist's measure of success.

How can students learn about the multiple career opportunities available to them? "The ideal way is to take an internship at a pharmaceutical company," suggests Nelson. "Major pharmaceutical firms all have similar career possibilities. You can learn a lot about those possibilities by interning at one."

#### **SOUTH SAN FRANCISCO, CALIFORNIA:**

"The cutting edge in life science is the movement from collecting data to analyzing it," says Peter Vander Horn, research director, MJ Bioworks, Inc. "There are whole families of genes we've never identified. And there's enough work for everybody from every discipline. The opportunities exist in small labs and big lab projects. There's such a large flood of raw data at present." Bioinformatics is probably the hottest area, according to Vander Horn. "If you can write code, you have a very good standing right now, especially in the Bay area," he says.

In addition to his work at MJ Bioworks, which he describes as "a kind of Bell Labs for the MJ Research companies," Vander Horn is acting CEO of GeneSys Technologies, Inc., of Madison, Wisconsin, another part of the MJ group that manufactures instruments for high-throughput DNA sequencing and genotyping. Before joining Bioworks he had experience with Amersham Pharmacia Biotech. In those capacities he has seen plenty of life scientists move into nonbench jobs.

"Amersham hired a lot of people for its sales force at the



**Peter Vander Horn** "It's very good if they can discuss the science," says Vander Horn.

In its recruiting process, Bioworks aims to match individual scientists' abilities to their jobs. "We don't tell them exactly what the job is until the end of the interview," says Vander Horn. "We want to see what they want to do and can do." He also seeks to identify candidates' management potential right from the initial interview. "It's important to match the person's ambitions with the company's," he explains. "Almost all the Ph.D.s I've known have wanted to aspire to management positions. Those not so driven can fit into a different area."

How should life scientists approaching graduation decide on their career path? "Do what scientists do best: Research. Contact your friends, and talk to a number of different people at a number of different companies," Vander Horn advises. "Then figure out what you want to do and make a plan to get there. If you're interested in being a bench scientist for the rest of your life or being the CEO of a company, you have very different career paths."

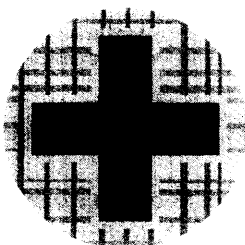
Students should also give serious thought to the interview process and why they are applying for an industrial position. "I would recommend that everybody near the end of an academic research project should read a book about interview techniques," he says. "One scientist I interviewed had no idea why he wanted to go into industry rather than academia. That's a disaster waiting to happen."

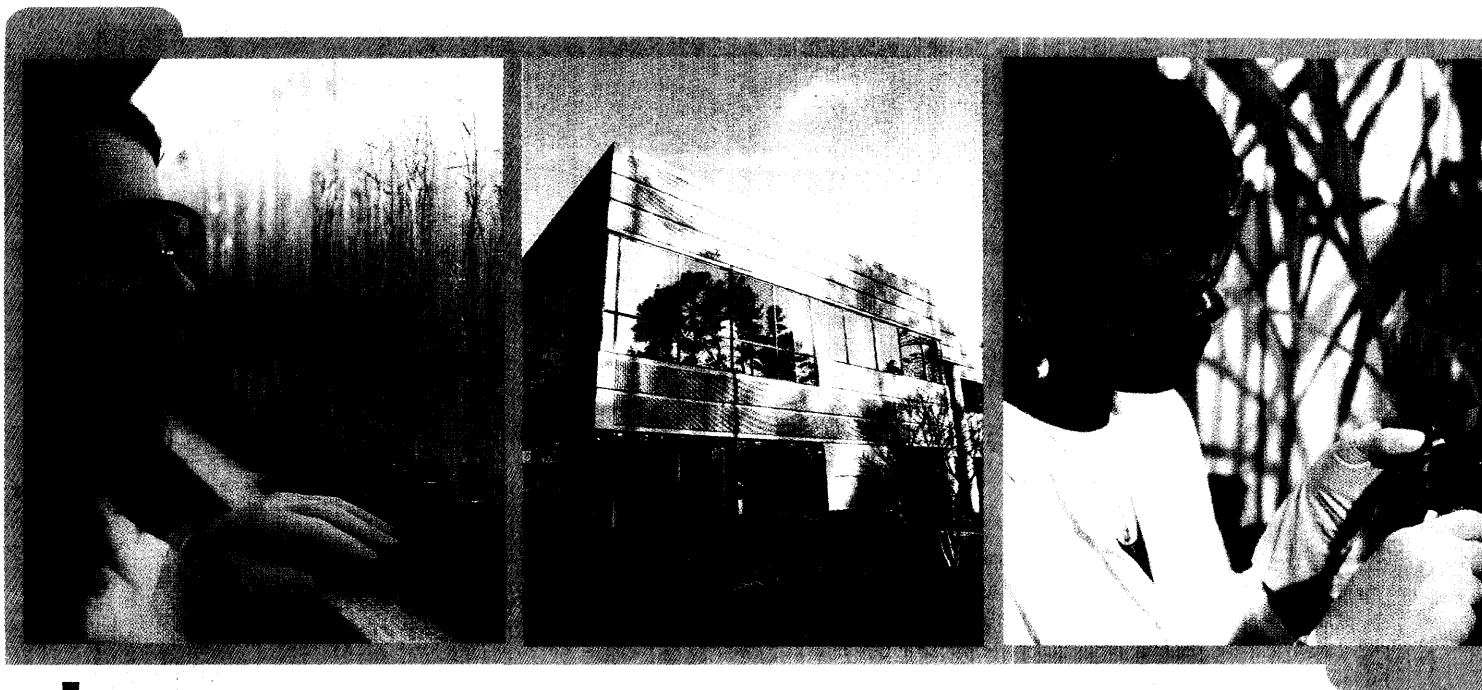
#### **KENILWORTH, NEW JERSEY:**

In *Job\$ in the Drug Industry: A Career Guide for Chemists*, just published by Academic Press, Richard Friary outlines the diverse opportunities for chemists in the pharmaceutical industry. Himself a synthetic organic and medicinal chemist at the Schering-Plough Research Institute, Friary regards chemists as crucial to the drug discovery process.

"Discovery chemists deliberately make thousands of new molecules for pharmacological testing, becoming inventors of indispensable composition-of-matter patents," he explains. "Development chemists conceive, test, and demonstrate manufacturing syntheses that are economic, safe, and environmentally sound, as well as adaptable to large-scale production. And analytical chemists' work pervades every drug

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then click on **Advice and Perspectives**.





**NOVARTIS**  
Novartis Agribusiness  
Biotechnology Research, Inc.

## Creating opportunities...

Novartis Agribusiness Biotechnology Research, Inc. (NABRI), a subsidiary of Novartis, was founded in 1983 to develop and use biotechnology in support of the company's worldwide Crop Protection and Seeds businesses. NABRI is committed to integrating the disciplines of genetics, genomics, molecular biology, chemistry and biochemistry. The 280+ scientists at NABRI work closely with numerous major universities and Novartis agribusiness research centers around the world, including the Novartis Agricultural Discovery Institute. Our state-of-the-art research center located in dynamic Research Triangle Park, North Carolina, provides high-throughput DNA sequencing, arraying, bioinformatics and chemistry support. The successful candidates will join an interdisciplinary group of highly motivated scientists devoted to maintaining leadership in the area of agricultural biotechnology.

### GRAIN TRAITS DISCOVERY GROUP

This group is developing transgenic solutions for improving the composition and quality of major grain crops. Efforts are centered on traits that are associated with grain processing characteristics, carbohydrate, protein and oil quality and quantity, and food/feed nutritional value.

**Staff Scientist** - Candidate should possess a Ph.D. in biochemistry with a record of sustained scientific creativity and exceptional productivity in either an industrial or academic setting with a specific focus on enzyme discovery and mechanistic enzymology. The successful candidate will develop novel screening methods for carbohydrate-degrading enzymes and perform enzyme assays, including determination of structure-activity relationships. The research requires knowledge of carbohydrate chemistry and biochemistry. Job Code 0015, Category Biochemist

**Research Scientists** - Candidates should possess a BS/MS in biochemistry and a minimum of 3 years experience utilizing the following: protein purification and characterization techniques, HPLC, column chromatography, Western blotting, and enzyme assays. Experience with various spectroscopic and fluorescence techniques also a plus. Job Code 0016, Category Biochemist

**Post-doctoral position** - Research will focus on the characterization of starch and non-starch polysaccharide biosynthesis and discovery of enzymes for biosynthesis of novel polysaccharides in plants. This post-doc position requires knowledge of carbohydrate chemistry and biochemistry as well as demonstrated expertise in general techniques of biochemistry, molecular biology and immunology. Job Code 0014, Category Plant Biochemist

### INVERTEBRATES TARGETS GROUP

**Post-doctoral position** - You will join a research group whose goal is to develop and apply genetic and functional genomic technology leading to the discovery of novel targets for the control of insect pests and nematodes. The successful candidate will perform genetic analysis on the model nematode *C.elegans* using both forward and reverse genetic approaches. A Ph.D. in molecular biology, genetics, or related discipline is required. Candidates should have a strong background in molecular genetics and be familiar with the model system *C.elegans*. Job Code 0013, Category Invertebrate Biologist

### How to apply online for scientist positions at NABRI:

Go to [www.us.novartis.com](http://www.us.novartis.com)  
Click on either Text Site or Graphic Site  
Click on Human Resources  
Click on Employment Opportunities  
Click on Apply Online

Please fill in the required fields, enter the appropriate Job Code and Category, and paste in your cover letter and resume. Novartis offers a competitive salary, a comprehensive benefits package, and an environment conducive to professional development. An equal opportunity employer.

### Attention all scientists interested in current and future positions at NABRI:

Our resume database allows applicants to submit their resume for consideration for any open position at any division of Novartis in the United States. At NABRI, we invite applications from scientists at all levels with expertise in plant, fungal, and insect molecular biology, microbiology, plant transformation, entomology, biochemistry, and analytical and synthetic organic chemistry. Please follow the directions above, fill in the required fields, and enter Job Code 9960. Job code 9960 is the equivalent of "any open position at NABRI". You may select the job category that most closely matches your field of expertise. As new positions open up, we will search the resume database and alert all qualified candidates.

# PHARMACIA

## Do the research and you'll find this to be **AN AMAZING DEVELOPMENT**

Discovering brilliant new cures is easier to achieve when your company is rapidly growing in sales, stability and resources. That's what we're experiencing with the merger of Monsanto and Pharmacia & Upjohn, where 60,000 professionals have come together to form a \$17 billion first-tier pharma organization: Pharmacia Corporation. By investing more than \$2 billion annually in pharmaceutical R&D, and developing one of the strongest patent positions in the industry, we are able to provide such innovative, industry-leading drugs as Detro<sup>®</sup> for over-active bladder control and Celebrex<sup>®</sup> to treat arthritis. The following challenging opportunities are now available:

### **KALAMAZOO, MI OPENINGS:**

#### **BS/MS Research Associate, Genomics Research Unit Position #900937**

As an important member of a multidisciplinary team with a focus on efficacious therapeutic agents related to CNS function, the Biology/Biochemistry Associate will use functional genomics to identify and characterize novel genes. Expertise in molecular biology is required, prior experience with bioinformatics, genotyping, gene/protein expression profiling and analysis, and high throughput/robotic operations is desirable; proficiency in phage display, cloning, PCR, and the development & application of quantitative and qualitative analyses also would be useful. In addition to the ability to communicate effectively and to work productively in a team setting, candidates should be reliable, creative, self-motivated, and have high work standards.

#### **PhD Macromolecular Crystallography Scientist Position #900913**

As a Research Scientist in the Macromolecular Crystallography Group, the scientist will conduct research on the structural biology of novel pharmaceutical targets to expand an existing structure-aided drug design effort. In collaboration with crystallographers, medicinal chemists and other program team members, the scientist will crystallize proteins and solve/interpret structures to support drug discovery. The new scientist will join an established, well-equipped crystallography group. The selected candidate will have a PhD in Chemistry, Biochemistry or related field with extensive research laboratory experience and a strong record of success in crystallographic structure determination. Experience with molecular biology, protein chemistry or crystallization that complements existing crystallography group expertise is highly desirable. The scientist will collaborate with a diverse assembly of protein chemists, molecular biologists and synthetic chemists on drug discovery program teams, and so must possess strong communication skills and command the respect of his/her peers.

#### **BS/MS Crystallization Associate • Position #900087**

The incumbent will work as a member of the macromolecular crystallography laboratory. Primary responsibilities include the preparation of biological macromolecules and ligand complexes for crystallization experiments. This work requires the ability to set up and analyze a variety of macromolecular crystallization experiments, to collect single crystal data, and to process the data for structure determination with minimal supervision. The incumbent will analyze protein samples for purity by SDS-PAGE, isoelectro-focusing, gel filtration chromatography, ion exchange chromatography and dynamic light scattering. This position requires the direct interaction with crystallographers and other researchers, including protein suppliers. The incumbent will be expected to work with the supervisory scientist to expand the existing repertoire of crystallization methodology, to assist in the development of alternative crystallization strategies for specific macromolecule targets, and to communicate the results of biochemical analysis and crystallization efforts to other researchers. Prerequisites include a BS/MS in Biochemistry combined with experience in routine biochemical and biophysical techniques including dynamic light scattering; preparation of protein/nucleic acid-protein/ligand complexes and membrane protein crystallization. Synchrotron data collection experience is desired.

#### **PhD Integrative Neuroscientist • Position #990396**

We seek Neuroscientists to develop an innovative preclinical drug discovery research program focused at treatment of psychiatric diseases. Requires a strong background in integrative neurobiology and molecular neuroscience in order to build a successful discovery research strategy that is based on CNS targets identified by genomic platforms. The ideal candidate will have an in-depth knowledge of the pathophysiology and pharmacotherapy of psychiatric diseases. In addition, a proven track record of designing/ implementing a multidisciplinary research program aimed at probing the functions of neural systems associated with psychiatric pathophysiology is desired. Qualified applicants will work in a multidisciplinary team environment that utilizes cutting-edge science and technology to develop novel therapeutic agents for schizophrenia, major depressive disorder, anxiety disorders and migraine. Our CNS Discovery Program Teams offer an exciting and challenging research environment and provide opportunities to incorporate innovative research paradigms within individual laboratories. Applicants will have a PhD in Neuroscience or a related discipline and a minimum of 3 years relevant postdoctoral experience.

#### **BS/MS Cell Biologist • Position #900959**

The candidate needs to demonstrate working familiarity with basic cell biological techniques: immunoassays, protein separation and detection, cell culture. Experience with basic molecular biology techniques such as plasmid construction, cell transfection, protein expression and PCR is a plus. This position involves an analysis of intracellular structural rearrangements involved in neurodegenerative processes. Requires a BS or MS degree in Biology or a Neuroscience-related discipline with a minimum 2-3 years of relevant laboratory experience.

### **ST. LOUIS, MO OPENING:**

#### **SCIENTISTS**

Selected candidates will design/interpret pharmacokinetics (PK) and metabolism studies in support of compound selection and decision making in discovery research. Prerequisites include BS/MS or PhD; training in PK; demonstrated success in applying knowledge from PK and metabolism studies to support drug discovery and/or development; familiarity with common software tools for PK analysis; and the ability to coordinate and supervise PK and metabolism studies. Industrial research experience preferred. Experience using PK/PD modeling and simulation techniques desired. The professionals we select will have strong oral/written communication skills and the proven ability to work in a team environment.

Pharmacia can improve your future, with outstanding compensation, excellent benefits and the realization that you've reached the height of the industry. **FOR THE KALAMAZOO OPENINGS**, you may apply online at [www.pharmacia.com](http://www.pharmacia.com) or send your resumes, indicating appropriate Position #, to: Pharmacia Corporation, 7000 Portage Rd., 5003-024-001, Attn: Human Resources, Kalamazoo, MI 49001. **FOR THE ST. LOUIS OPENING**, you can mail resume to: Pharmacia Corporation, Attn: Staffing, Job Code: 00-1475, 700 Chesterfield Pkwy, BB4D, Chesterfield, MO 63198. An equal opportunity employer, we value a diverse combination of ideas, perspectives, and cultures.

# DuPont Central Research & Development

## Ph.D. Principal Investigators

If you are energized by challenging, complex research problems and the opportunity to chart new research avenues in modern biotechnology, then DuPont Central Research & Development would like to invite you to submit your resume for consideration. We are seeking Ph.D. Principal Investigators who have a strong record of innovation and research productivity. Candidates should have good communication skills, the demonstrated ability to manage a research program, and the ability to thrive in a dynamic, team-oriented research setting.

### Bioprocess Engineering

DuPont has openings for Ph.D. Chemical/Biochemical Engineers. The successful candidates will join a multidisciplinary team of molecular biologists, microbiologists, biochemists, chemical and biochemical engineers and other members of DuPont's research staff. The engineering research staff seeks to understand and develop processes that utilize biotransformations to synthesize products for DuPont's chemicals and materials businesses. Key research areas are fermentation process development, optimization and modeling, metabolic pathway modeling, separations process research and development, and process synthesis and evaluation. **Code: FCRD424PSCI**

### Molecular Microbiology

We are seeking Principal Investigators in the area of molecular microbiology to join our research staff. The focus of this research effort is to discover the enzymes and the genes of new bacterial or fungal biochemical pathways, as well as engineer new organisms for industrial applications. Candidates should have a Ph.D. in microbiology, a strong knowledge of microbial diversity and metabolism, and extensive experience in microbial biochemistry, molecular genetics or fermentation. Specialists in other forefront approaches to microbiology such as structural and functional genomics will also be considered. **Code: FCRD468PSCI**

### Plant Physiologist

A plant physiologist is needed to join an interactive team of molecular biologists, chemists, enzymologists, plant physiologists, and chemical engineers to develop green plant-based platforms for the production of industrial chemicals. Research responsibilities will include characterization of the production, sequestration, and ultimate fate of these chemicals in a variety of plants under multiple conditions. Candidates should have skills in these areas as well as in plant molecular biology.

**Code: FCRD471PSCI**

### Protein Engineering

DuPont is expanding its commitment to bio-based research. We are seeking a molecular biologist to work interactively with enzymologists, microbiologists and structural biologists in the area of enzyme evolution to generate novel biocatalysts. We are interested in candidates who have a broad knowledge of microbial genetics and molecular biology in order to develop appropriate mutagenic, screening, and selection strategies for evolving enzymes, pathways and organisms. An understanding of enzymology is highly desirable for characterizing the evolved enzymes obtained through mutagenesis. The successful candidate will have a Ph.D. and the demonstrated ability to conduct independent research in mutagenesis and protein evolution. Good communication skills and the ability to thrive in a team-oriented research setting are essential. **Code: FCRD469PSCI**

DuPont is a global company of people who deliver science-based solutions that make a difference in people's lives in food and nutrition, health care, apparel, home and construction, electronics, and transportation. For talented and creative people, future career paths at DuPont can be rich and varied. Wherever your talents and interests take you in DuPont, you will be working with the best scientists, engineers, computer experts, and manufacturing, marketing, and financial professionals. At DuPont we have:

- Laboratories supplied with leading-edge instruments and equipment
- Modern information systems
- Nearly 2,500 Ph.D.s in the United States alone

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# Shape the future of PHARMACEUTICAL INNOVATION.

The outstanding success of Schering-Plough stems from a basic commitment to scientific research & development. In order to discover, and expedite the movement of new compounds into development, R&D expenditures have steadily increased since the early 1980's, with those in 1999 exceeding \$1 billion. At Schering-Plough Research Institute, our scientists are identifying and developing new drugs that directly target the causes of disease and may offer significant improvements over older treatments that only address disease symptoms. We invite candidates who meet any of the following requirements to join the exciting growth environment at Schering-Plough Research Institute's campuses in Lafayette (Northwestern New Jersey), and in Union and Kenilworth (North Central New Jersey)...all providing excellent residential communities with easy access to New York City.

## PROCESS DEVELOPMENT

### Sr. Scientist - Biotechnology Development

Provide technical support to ongoing clinical and non-clinical production of cell culture products in a state-of-the-art mammalian cell culture plant. Primary responsibilities include assessing cell physiology at various stages of cell growth and developing improved methods for optimum cell propagation and scale-up. Ph.D. in Cell Biology with 0-3 years extensive laboratory experience in cell culture and/or viral vector expression required. **Job Code: XHXBD9911**

## CHEMICAL RESEARCH

### Postdoctoral Scientist - Structural Chemistry

A postdoctoral position is now available within our Structural Chemistry group for the study and structural analysis of enzymes in complex with RNA. The research will extend structural studies of the hepatitis C virus RNA helicase and RNA-dependent RNA polymerase [Yao, et al (1999) Structure 7:1353; Lesburg, et al (1999) Nat. Struct. Biol. 6:937]. Ph.D. and familiarity with methods for characterization and/or structural analyses of protein/RNA complexes using either NMR or x-ray crystallography are required. **Job Code: XHXTM99448**

## DISCOVERY RESEARCH

### Ph.D. Postdoctoral Scientist - Signal

#### Transduction/Genomics, Oncology Research

This fellowship within the Cancer Genomics Group, will focus on analysis of a novel MAPK module utilizing traditional as well as cutting-edge technologies such as large-scale DNA arrays and sequence databases. Training will be provided in signal transduction and genomics. Ph.D. with background and/or education in Biochemistry, Molecular Biology or related discipline and up to 3 years postdoctoral experience are needed. Research experience in signal transduction is a plus. Publications history and strong communication skills are highly desired. **Job Code: XHXTM99995**

### Research Scientist - Tumor Biology, Oncology Research

This multi-faceted position contributes to and supports *in vivo* evaluations of new compounds and anti-cancer therapies targeting oncogene signal transduction, tumor angiogenesis and hormone regulated tumor progression. BS/MS in Biological Sciences and minimum 2-4 years experience with *in vivo* models (tumor implantation, dosing, surgery, histopathology) and mammalian cell culture. Expertise with biochemistry, molecular cloning techniques, and immunology is highly desired. **Job Code: XHXDD0107**

### BS/MS Pharmacology, CV/CNS Research

Utilize surgical techniques and develop assays. BS/MS in Biology, Biochemistry or related discipline with 3-6 years of *in vivo* pharmacology experience. Molecular biology skills a plus. **Job Code: XHXDD9111**

### BS/MS Research Associate, Allergy Research

Perform receptor binding assays and develop and perform cellular functional and second messenger assays. BS/MS in Biochemistry, Cell Biology or Molecular Biology with 2-4 years of related lab experience. Expertise with receptor binding assays, mammalian cell culture, high throughput second messenger assays and molecular biology techniques required. Good communication and data management skills desired. **Job Code: XHXDD0103**

### Research Associate - Immunology Research, GPCR Pharmacology

BS/MS in Pharmacology, Biochemistry, Molecular Biology or related field to work in G-Protein Coupled Receptor Pharmacology. Requires 2+ years related lab experience with cell and tissue assays including radioligand binding, second messenger and enzymatic assays, ELISA, and Western blotting, as well as basic molecular biology techniques such as RT-PCR, vector construction, sequencing, and transfection. Experience with immune system cell culture and digital imaging microscopy desired. **Job Code: XHXDD0066**

## RESEARCH INFORMATION SYSTEMS

### Project Managers - Scientific Systems

Will have project oversight and management responsibility for vendor-developed and in-house custom software in support of Drug Safety and Toxicology. BS/MS in Computer Science, Physical Science, Engineering, Mathematics or related field with 8+ years experience in the development and support of scientific systems are required. This experience should include 3+ years vendor software management, 3+ years project leadership and/or supervisory level, 3+ years software validation and regulatory compliance. **Job Code: XHXRI9912**

### Lead Clinical Systems Analyst -

#### Software Quality Assurance and Validation

Review the existing validation approach and provide guidance to clinical systems management to assure compliance with SOPs and the system development methodology. At least 2 years experience in QA, system validation, and application testing is required. **Job Code: XHXRI2005**

### Lead Systems Analyst - Scientific Systems/Structural Chemistry

Install/maintain extensive suite of research applications, including packages from major vendors: MSI, Triplos, Varian, Bruker, Cambridge, Schrodinger, etc.; provide technical support for the research-computing environment; interact with vendors to resolve technical issues, and automate research processes through use of Shell Scripting and/or other programming. BS/MS/Ph.D. in Chemistry or related field, in-depth experience installing and maintaining standard structure elucidation s/w packages, including: Insight II, Sybyl, Unity, Felix, Xplor, VNMR, Cambridge, etc., and solid experience with SGI/Irix needed. Experience with UNIX Shell Scripting, strong analytical and problem-solving skills along with familiarity with programming in C, C++ or Fortran and with the scientific aspects of the Structural Chemistry research process (computing and data needs and requirements) are essential. **Job Code: XHXRI9938**

**For additional information or to apply online, visit our web site at [www.sp-research.com](http://www.sp-research.com)**

We offer an excellent compensation package that includes a competitive salary, a cash incentive bonus program, profit sharing and 401(k). Comprehensive benefits include: group insurance and retirement programs, flexible work arrangements, education assistance, and health and wellness programs. For prompt, confidential consideration, on the above positions, we invite you to apply on line or forward your resume, which MUST include Job Code for position of interest, to: E-mail: [sprisc@isearch.com](mailto:sprisc@isearch.com) or Mail: Human Resources, Schering-Plough Research Institute, 2015 Galloping Hill Road, Kenilworth, NJ 07033-1300. We are an equal opportunity employer.



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Using Science for Human Advantage

# the new face in p h a r m a c e u t i c a l s

## **Additional opportunities available:**

### **DIRECTOR**

- Genomic Production Services

### **ASSOCIATE DIRECTORS**

- Tumor Biology/Xenograft Models
- Medicinal Chemistry • Microarray Core Facility

### **SR. SCIENTISTS**

- Proteins/Antibodies
- Transplant Immunology
- Assay Development Leader
- Lead Optimization • In Vitro Metabolism
- Array Profiling Development

### **SR. RESEARCH ASSOCIATES**

- Ion Channels • In Vitro ADMET
- Chemokine Receptors • LIMS Development

### **SCIENTISTS**

- Immunology/Leukocyte Activation and Regulation
- Molecular Biology
- High Throughput Screening
- Enzymology • Medicinal Chemistry
- Analytical Chemistry
- Protein Mass Spectrometry
- Functional Genomics
- Expression Profiling Development – Tagman
- Computational Biology

### **RESEARCH ASSOCIATES**

- Molecular Biology – recombinant DNA technologies, *in situ* hybridization, RNA preparation, PCR, high throughput screening
- Protein Purification • Animal Modeling

### **RESEARCH INVESTIGATORS**

- Analytical • Biologic

Millennium has a new vision for the future of medicine. Expertise, insight, synergy and above all passion unite us in creating a better way to cure disease and allow us to have fun in the process. Further, our recent merger with LeukoSite, Inc. leapfrogs Millennium toward our vision of building the pharmaceutical company of tomorrow. The face of the future never looked brighter.

### **IN VIVO PHARMACOLOGY & DRUG METABOLISM**

We are seeking highly motivated scientists to join a team focused on supporting drug discovery efforts to identify novel small molecule compounds for development.

### **PhD SR. SCIENTIST, DRUG METABOLISM**

We're looking for a strong candidate to provide leadership in drug metabolism technology. Experience in conducting *in vitro* metabolism studies using microsomes, hepatocytes and purified enzymes for identifying drug metabolites is required. Also needed are a PhD in Drug Metabolism, Analytical Chemistry, Biochemistry, Pharmaceutical Science or a related discipline and 2-5 years experience related to drug discovery.

### **PhD SR. SCIENTIST, PHARMACOKINETICS**

This skilled professional will have experience in pharmacokinetic technology, including experimental design and analysis, and practical experience with bioanalytical methods and the biotransformation of drugs. A PhD in Pharmacology, Biochemistry, or a related discipline and 2-5 years experience are required.

### **PhD SR. SCIENTIST, IN VIVO PHARMACOLOGY**

The successful candidate will have working knowledge of immunology, inflammation biology, autoimmune diseases, or metabolic diseases. A PhD in Immunology, Pharmacology, or a related discipline and 2-5 years experience in the use of animal models are required. Previous experience in developing methods and models to evaluate compounds *in vivo* and *ex vivo/in vitro* is required.

Join us in building the biopharmaceutical company of the future at our Cambridge facilities. Please respond by sending only one resume using only one of the following methods, indicating the position(s) you are interested in. Mail your resume to: Millennium Pharmaceuticals, Resume Processing Center, Source Code SC500, PO Box 798, Burlington, MA 01803. Email: millennium@webhire.com. Fax: (800) 370-6925. A source code must be included with all submissions. We are an equal opportunity employer committed to discovering the individual in everyone.

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company from discovery chemistry through drug metabolism, radiochemistry, development chemistry, formulations to manufacturing, and quality control."



**Richard Friary** Industry's need for competent chemists is so great that many firms no longer require post-doctoral research experience of their Ph.D. employees. Similarly, chemists with newly minted Bachelor's and Master's degrees can easily find entry-level positions without industrial experience. "I think companies seek chemists who are eager experimentalists," says Friary. "Other important traits are industriousness, cooperativeness, and an abiding sense of urgency. Toleration of diverse cultural practices and viewpoints is also essential in a large company. I work among chemists representing at least 18 countries on five continents — which is one of the pleasures of my job."

Companies expect their recruits to hit the ground running with a minimum of orientation but plenty of encouragement from mentors. "A good supervisor is willing and able to teach a baccalaureate chemist how to do research, much as a chemistry professor tutors a graduate student," Friary explains.

What advice does Friary have for chemists seeking their first job in industry? "First, they should be aware of this industry's remarkable diversity," he says. "The industry includes a great many companies and even nonprofit research centers that engage in some but not all of the businesses of a fully integrated pharmaceutical company. So a job seeker can look for work not only in a start-up or a top-10 drug house but also in a dedicated custom synthesis firm, a radiochemistry concern, or a specialized combinatorial chemistry company, to take only three examples. Second, those job seekers are wise who diligently do their homework. Students contemplating industrial careers must evaluate companies and job offers, negotiate salaries, weigh benefits, and analyze pensions. Finally, I advise any chemist seeking a pharmaceutical industry job to read current and back issues of *Science*. It runs distinctive chemist-wanted ads that introduce companies to job seekers."

#### **SEDONA, ARIZONA:**

Biotechnology and pharmaceutical companies are looking for life scientists to participate in all their activities related to drug discovery, from research in the laboratory to process development, according to David Jensen, managing director of executive search firm Search Masters International, Inc. However, companies are extremely selective about how they fill specific jobs. "They tend to wait until they find just the right person to fill the niche," he warns.

For bench work in biotechnology companies, Jensen says, drug discovery is hot. "Anyone exposed to genomics, proteomics, bioinformatics, and — especially — high-throughput screening is in a great field," he says. "In some of those areas you can get experience in academic research. But in others, notably high-throughput screening, you can't. Here, industry experience is very useful. Companies will go out of their way to hire from industry because of the risk that someone from academia won't fit."

Pharmaceutical companies, meanwhile, seek similar personnel and a few others. "Pharmas still have their emphasis on the traditional-side, small-molecule product," says Jensen. "So chemists are once again in real demand. Sometimes the demand is so high that it becomes difficult to find chemists, particularly those with industry experience to their credit."

Beyond the laboratory, he continues, "Biotechnology companies are in an absolute frenzy of hiring microbiologists who have experience with fermenters, chemical engineering graduates who have experience in bioprocessing, and biochemical engineers. They also have a great need for scientists to work in the manufacturing environment. They need analytical chemists for quality control groups and validation work, for example. And even biochemists are needed."



**David Jensen**

Another area of opportunity for nonbench jobs occurs in companies that supply the biotechnology and pharmaceutical industries. "Research products companies hire life scientists who will work with their customers as technical services people," Jensen says. "This is a wonderful opportunity for jumping off into sales, with its potential for very high earnings. If you're an analytical chemist who works with spectroscopy or knows everything about NMR, then go for that."

Business development also offers several opportunities for life scientists. "All the biotechnology companies thrive on doing deals," explains Jensen. "Business development can be anything related to deal-making." This area respects high academic credentials. Business development people generally have Ph.D.s and often Ph.D.s and MBAs

Jensen sees no lack of interest in nonlaboratory jobs. "The single most popular question asked of me when I do presentations on campus is: What work can I do outside the bench?" he recalls. However, he warns that getting used to those jobs can be difficult. "The academe-to-industry transition is a tough one," he says. "But the transition from academe to nonbench work is even tougher. The best bet is to go to the bench first and then make a lateral move. Many companies hire people for technical support or business development from their bench scientists."

CONTINUED ➞

## **Opportunities with Amgen**



Amgen, a leading biopharmaceutical company, has the following opportunities at our Thousand Oaks, CA location.

### **LABORATORY HEAD**

You will lead our molecular modeling group and become part of our state-of-the-art, structure-based drug design department. We require expertise in all aspects of molecular modeling for small molecule Rational and Structure Based Drug Design, particularly in drug-protein interaction and protein modeling technique. Knowledge of commercial modeling software packages is strong plus. A Ph.D. or equivalent in molecular modeling with 5-10 years industry experience and a record of accomplishment in a major pharmaceutical company essential. Strong communication skills and extensive experience interacting with chemists and biologists in a project team setting a must. (Job Code: 00-0000557S)

### **LABORATORY HEAD**

Reporting to the Vice President of Process Development, you will oversee an expanding Small Molecule Process Development group that designs and develops efficient syntheses and large-scale processes for preparing intermediates, drug candidates and preclinical or clinical supplies. We require a Ph.D. in Organic Chemistry/Chemistry with 10+ years of pharmaceutical industry experience. A strong background in organic synthesis, process chemistry, and experience in the kilo lab or pilot plant environment essential. Excellent verbal, written and interpersonal communication skills to effectively interface with all levels of management and colleagues. (Job Code: 00-0000310S)

### **PROCESS DEVELOPMENT SCIENTIST II**

You will work as part of a multidisciplinary team to develop and scale efficient processes for small molecule drug candidates. Help transfer of projects from Research to Process Development, oversee the kilo lab operations and assist in the further definition of small molecule development at Amgen. 5+ years of pharmaceutical industry experience with a strong background in organic synthesis, process chemistry, experience in the kilo lab or pilot plant environment required. Excellent written/oral communication skills essential. An understanding of cGMP is highly desirable. Ph.D. in Organic Chemistry required. (Job code: 00-0000241S)

### **SR PROCESS DEVELOPMENT ENGINEER I**

This position will provide engineering expertise to bio pharmaceutical process development teams, bolstering Amgen's expertise in process controls and pharmaceutical equipment characterization. You will implement advanced process control strategies that improve process reliability & yield. Focus on process controls and pharmaceutical equipment characterization and identify strategic control technologies. Requires experience with advanced loop tuning and the application of advanced model based control algorithms to handle process upsets and reduce operating costs. Requires 7 years experience in the scale-up and characterization of pharmaceutical unit operations and processing equipment. A BS/MS in chemical or mechanical engineering and 10+ years pharmaceutical industry experience essential. (Job Code: 99-0001435S)

### **PROCESS DEVELOPMENT ENGINEER**

You will work on individual and team projects, providing technical support for the production of recombinant-DNA-derived proteins. Duties include providing technical support and assisting in the troubleshooting of clinical and commercial formulation lyophilization, reviewing manufacturing protocols, conducting experiments at laboratory scale and pilot-plant scale, designing and scaling-up of experiments, analyzing data, writing reports, and addressing process deviations. 7 years experience in biopharmaceutical processing in a cGMP environment. Experience in biophysical and biochemical protein characterization techniques preferred. Supervisory experience with B.S. or M. S. in chemical/biochemical engineering or equivalent essential. (Job Code: 00-0000352S)

At Amgen, your accomplishments are rewarded. We offer a highly competitive compensation and benefits package that includes a retirement and savings plan, an on-site fitness center and three weeks vacation. For immediate consideration, please mail your resume to: **Amgen Staffing (indicating appropriate Ad Code), P.O. Box 2569, Thousand Oaks, CA 91319-2569** or e-mail in ASCII text to: **JChiang@amgen.com** EOE/AA Employer M/F/D/V.

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**AMGEN**



# PHARMACIA

Though our merger is based on hard science, we're  
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Changing the big picture of the pharma industry, the merger of industry leaders Monsanto and Pharmacia & Upjohn has resulted in the formation of a new first-tier organization known as Pharmacia Corporation. Uniting the ambitions and talents of 60,000 professionals under this \$17 billion company with an R&D pipeline of exceptional strength and depth allows Pharmacia to have a positive effect upon countless lives. With breakthrough drugs including Detrol® for over-active bladder control and Celebrex® to treat arthritis, their work is truly special.

The following opportunities are **POSTDOCTORAL CONTRACT** positions, working through Quantum Resources, a third-party employer. Selected candidates will work on-site at Pharmacia Corporation's Kalamazoo, MI facility, under the supervision of a Pharmacia scientist.

**CNS Signal Transduction • Position #QR20005**

A postdoctoral position is available in the Cell & Molecular Biology Dept. to study the regulation of Trk receptors via phosphorylation/dephosphorylation mechanisms. Studies will involve in vitro systems using purified proteins as well as the use of transfected cell lines as model systems. Candidates should have a PhD with training in cell biology and protein biochemistry. Experience in protein purification, enzyme assays, and cell culture techniques is required.

**Ion Channel Pharmacology • Position #QR20008**

A postdoctoral position is available to study the molecular pharmacology of ion channels. Qualifications include a PhD in Physiology or related field and a strong background in ion channel function and/or pharmacology. The ideal candidate will be proficient in molecular biology and either electrophysiology or fluorescent imaging techniques. Good communication skills and a high level of motivation are essential.

**Fungal Cell Wall Biosynthesis • Position #QR20003**

A postdoctoral position is available to study mechanisms and enzymes involved in the assembly and rearrangement of the fungal cell wall. Important aspects of the project are expression of glycan modifying enzymes and evaluation of their potential as targets for drug discovery. Qualifications include a PhD in Biochemistry, Cell or Molecular Biology, or related field. The ideal candidate should also have a background in glycobiology and/or enzymology. Previous experience with glycosyltransferases and/or other glycan modifying enzymes is helpful.

**Medicinal Chemistry • Position #QR20002**

There are two industrial postdoctoral positions available. One is in our Infectious Diseases area and the other is in our CNS area. Highly motivated individuals with a strong synthetic organic chemistry background are sought to work within a multidisciplinary team on the design and synthesis of biologically important molecules. A PhD in Organic/Medicinal Chemistry is required. The ability to function independently is essential.

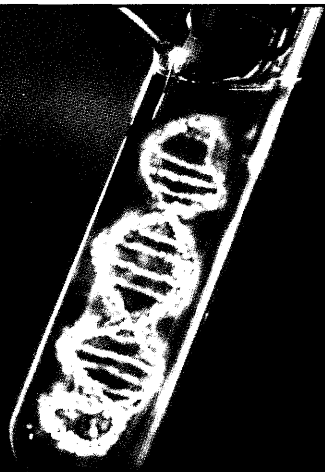
**Cellular Neurobiology • Position #QR20009**

This Postdoctoral Scientist position requires a broad understanding of cellular neurobiology. The successful candidate will have general knowledge of the cytoskeleton and intracellular organelle organization, as well as a desire to understand the fundamental similarities and differences between differentiated cells (i.e. neurons) and dividing cells. The student will characterize the cell biological mechanisms which lead to the formation of ubiquitinated protein inclusions and uncover the signals which underlie the accompanying cytoskeletal abnormalities. These inclusions are the diagnostic hallmark of neurodegenerative disease, and research from this project will be extremely useful for both publication and therapeutic development.

For confidential consideration, please send your resume, *including job posting #*, to:

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## **SCIENTIST PRECLINICAL DEVELOPMENT**

We seek a collaborative professional to be involved in registration-enabling preclinical studies, supporting lead candidate development programs for biologic and small molecules. Responsibilities include: design and oversight of preclinical pharmacology, pharmacokinetic and toxicology studies; data analysis and reporting of study results; and preparation of regulatory documents for regulatory agencies. The ideal candidate will possess 5+ years of relevant pharmaceutical or CRO experience and a PhD or PhD/DVM in a basic medical science with concentrations in toxicology and experience in immunology and animal models. Experience conducting various aspects of preclinical drug molecule evaluations is essential. Basic knowledge of drug development principles, broad training in biologic/medical sciences, and a working knowledge of computer software, statistics, and standard bioanalytical methods are desired. Excellent written and verbal communication skills a must. Source Code: JT-A100 SCI

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You will be responsible for all design and preparation aspects of new chemical entities for biological testing, as well as the supervision of one or more research associates in the synthesis of small molecules using solution and solid phase methods for evaluation of potential anti-infective agents. Qualified candidates will have an MS or PhD in Organic or Medicinal Chemistry with experience in experimental synthetic organic chemistry. A background in designing experiments and solving problems using modern chemical/biochemical principles and laboratory techniques with organic chemistry are necessary. Working knowledge of spectroscopic analysis methods and analytical/separation procedures is also required.

## EXPERIMENTAL THERAPEUTICS

You will be responsible for designing, developing and implementing *in vitro/in vivo* experiments employing pharmacokinetic/pharmacodynamic principles in the evaluation of compounds emerging from discovery programs, as well as from preclinical and clinical stages of drug development for bacterial and fungal programs. This will include development, validation and use of *in vivo* models of infection in animal models for assessment of organism virulence and compound efficacy. Qualified candidate will have an MS/PhD in Biology, Microbiology or Pharmacology with 3+ years experience in experimental therapeutics/pharmacology, immunology or pathogenesis. Working knowledge of performance and evaluation of results from experimental animal models of infection using bacteria and/or fungi is critical.

## BIOANALYSIS & DRUG METABOLISM

Responsibilities include the design, development and validation of bioanalytical HPLC assays to evaluate pharmacokinetics of drugs and their metabolites in biological matrices from preclinical models. Qualified candidates will have a BS in Pharmacology, Chemistry or a related scientific discipline (advanced degree preferred) and 2+ years laboratory experience in analytical methods development and validation for pharmaceutical compounds. Hands-on experience setting up, validating, and performing HPLC assays in biological matrices is required. Familiarity with GLP procedures, analytical instrumentation and data acquisition software is necessary. Working knowledge of LC/MS is preferred.

## FUNGAL GENOMICS

You will join a multidisciplinary team effort to identify and validate the mode of action for a novel anti-infective compound. Qualified candidates will have a BS/MS in Molecular Biology or Genetics with 3+ years experience in antimicrobial drug discovery research. Working knowledge in the use of DNA micro-arrays is also necessary.

## PHARMACOLOGY

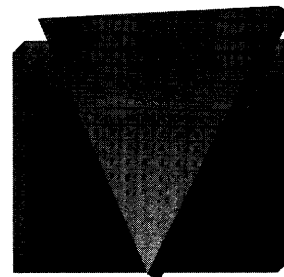
As a research associate, you will conduct pharmacokinetic, toxicological and efficacy evaluations of anti-infectives *in vivo* in an AALAC-accredited facility. Qualified candidates will have a BS in Biology, Pharmacology, Microbiology, or a related science discipline, with documented *in vivo* training and/or hands-on experience in performing drug evaluation protocols. Experience working in a GLP environment in support of drug discovery or development programs and AALAS certification are also desirable.

## MICROBIOLOGY

You will be responsible for the design of microbiological evaluation panels comprised of strains with characterized resistant mechanisms, as well as recent clinical isolates acquired by ongoing strain acquisition programs. This will include the evaluation of novel compounds using *in vitro* methods involving standardized susceptibility assays, synergism, *in vitro* pharmacodynamics and resistance. Qualified candidates will have an MS or PhD in Microbiology or related discipline and 2+ years relevant experience. Computer literacy in MS Office Suite and a working knowledge of key database programs (e.g., Oracle) are preferred.

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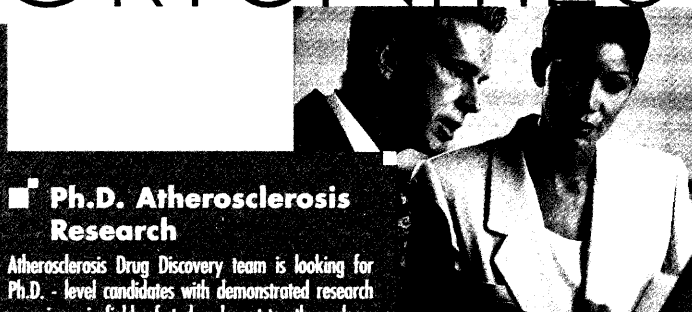
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FEWER

CAREER

# OPPORTUNITIES

As part of Lilly Cardiovascular Research, you will be involved in finding ways to help patients lead better, longer lives through innovative pharmaceutical products. You will become a member of a multidisciplinary drug discovery team focused on thrombosis, atherosclerosis and congestive heart failure. We are looking for dedicated scientists of high caliber, with enthusiasm and proven effectiveness as experimental biologists and a keen interest in drug discovery and development.



## ■ Ph.D. Atherosclerosis Research

Atherosclerosis Drug Discovery team is looking for Ph.D. - level candidates with demonstrated research experience in fields of study relevant to atherosclerosis. One particular area of interest is in lipoprotein metabolism, including isolation and characterization of lipoproteins, lipid analysis, in vivo lipoprotein clearance studies, enzymology related to lipoprotein metabolism, mechanisms of lipoprotein modulation, and studies of atherosclerosis in animal models. Please reference Source Code ADSCMCV01.

Candidates are also sought with expertise in nuclear hormone receptors and gene regulation, and metabolic regulation. Scientist with strong credentials in other areas of research relevant to atherosclerosis will also be considered. Please reference Source Code ADSCMCV02.

Scientists joining this team will be expected to participate in ongoing research projects and provide new directions for drug discovery research. The qualified candidates will have the ability to integrate scientific knowledge and experience into research that is relevant to atherosclerosis drug discovery.

## ■ Ph.D. and /or M.D. Electrophysiologist

We are seeking a self-motivated researcher with a M.D. and or Ph.D. degree to conduct innovative research in the mechanism(s) of cardiac arrhythmogenesis as well as the characterization of drug interactions with known ionic channels. Basic familiarity with computer-based data acquisition and cloning of ion channels is a prerequisite. The successful candidate will also possess a broad knowledge of contemporary ion channel electrophysiological techniques and be well versed in the translation of cell-based assay results into the pharmacology of drug candidates in the intact organism. The research will involve independent as well as collaborative work with an established team of cardiovascular scientists and toxicologists. Please reference Source Code ADSCMPH05.

## ■ Ph.D. Thrombosis Research

We are seeking a Senior Investigator with a Ph.D. and 7+ years experience in the field of blood coagulation and fibrinolysis to join our research team. This candidate will assume a strong leadership role and provide scientific direction and insight into discovery research efforts focused on the identification of novel antithrombotic strategies and therapeutics. We expect the candidate to conduct creative, independent research focused on the identification of novel antithrombotic genes and targets, the elucidation of new mechanisms and pathways and the discovery of innovative therapeutics. Qualified candidates will have the ability to integrate a strong scientific knowledge in the field of thrombosis and fibrinolysis into problem solving approaches relevant to drug discovery. The candidate must exhibit strong leadership skills, scientific independence and creativity balanced with strong interpersonal skills and the ability to contribute effectively to team oriented drug discovery. Please reference Source Code ADSCMCV05.

## ■ BS/MS Cardiovascular Research (Biochemistry, Cell and Molecular Biology, Physiology and Pharmacology)

Multiple associate positions exist in the cardiovascular research group in scientific disciplines related to the research positions described above. Please reference Source Code ADSCMCV01.

## ■ Postdoctoral Scientists

The Cardiovascular Research group is looking for creative scientists who have recently completed a Ph.D. in biochemistry, molecular biology, cell biology or related field. Experience in signaling pathways and cardiovascular biology is a plus. Lilly post-doctoral scientists gain sound practical experience and focused training that will significantly expand their scientific knowledge and abilities in drug discovery. Please reference Source Code ADSCMCV06.

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- Downstream BioProcessing Assistant  
#99-0392
- Downstream BioProcessing Associate  
#99-0394
- Staff Scientist  
#00-0155

## Analytical Chemistry Group

Seeking an individual to head up this department with a Ph.D. in biochemistry, analytical chemistry, or related field with a strong background in characterization and method development for biopharmaceutical products.

- Analytical Chemistry Supervisor  
#00-0154

## Purification/Product Recovery - Product Development

Seeking individuals with skills/experience in the areas of bioprocessing operations, product development, process automation, monitoring and control, and separation and purification techniques.

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- Research Associate(s)  
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- Research Assistant(s)  
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Unless otherwise noted, all positions listed require a Ph.D. and postdoctoral experience in a related field.

## ***Population Genomics***

***Medical Geneticist - Clinical Informatics*** - Job Code: CS-01

***Statistical Geneticist - Clinical Informatics*** - Job Code: CS-02

***Population Geneticist - Population Informatics*** - Job Code: CS-03

***Quality Assurance Manager - Genome Informatics*** - Job Code: CS-04

***Quality Assurance Analysts\**** - Job Code: CS-04A

***Scientific Analyst-Genetics - Clinical Informatics\**** - Job Code: CS-05

## ***Genotyping***

***Manager-Process Development*** - Job Code: MR-01

***Staff Scientist-Laboratory Automation Engineer\**** - Job Code: MR-03

***Genotyping Production Manager*** - Job Code: MR-05

## ***Bioinformatics***

***Software Engineer\**** - Job Code: RJ-01

***Bioinformatics Scientist-Data Mining*** - Job Code: RJ-02

***Programmer/Analyst\**** - Job Code: RJ-03

***Scientific Analyst-Molecular Biology\**** - Job Code: KN-01

***Computational Molecular Biologist*** - Job Code: KN-02

***Research Associates\**** - Job Code: RA-01

## ***Intellectual Property***

***Patent Attorney*** - Must be a registered patent attorney with 1-2 years' experience in patent preparation and prosecution. Strong technical background in biochemistry, genetics, or molecular biology; and experience with Microsoft Word and the Internet are required. Job Code: MH-01

\* A Bachelor's or Master's degree in a related field will also qualify you for these positions.

If you're the type of person who'd rather run than walk, then our non-traditional work environment may be just for you. Genaissance offers competitive salaries and comprehensive benefits. Please forward resume/C.V. and cover letter, including Job Code, to: Elaine Palome, Human Resources Consultant, Genaissance Pharmaceuticals, 5 Science Park, New Haven, CT 06511. E-mail: [e.palome@genaissance.com](mailto:e.palome@genaissance.com) Or FAX to: (203) 562-9377. **For more information on any of these positions, please visit our website at: [www.genaissance.com](http://www.genaissance.com)** We are an equal opportunity employer.



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# NEW HAVEN, CONNECTICUT:

As an independent human resources contractor to Genaissance Pharmaceuticals, Inc., a company that develops and markets proprietary population genomics and informatics technologies, Elaine Palome sees the full spectrum of opportunities for life scientists inside and outside the laboratory.



"There are wonderful careers in areas such as clinical research, regulatory affairs, quality assurance, sales and marketing, business development, conference production, recruiting, intellectual property, and technical writing," she says. "Most of those careers require training in science."

Elaine Palome Some of the fields need more training than others. "In some careers it is probably necessary to have a Ph.D. to be successful," Palome explains. "But the lion's share do not need one. To get into management and to work on projects at the director level, you probably still need a Ph.D. But many positions in, for example, quality assurance and clinical research don't necessarily require one. A Bachelor's or Master's degree with experience in the lab will be sufficient to start."

Palome regards laboratory experience as a useful starting point for work beyond the bench. "It's very helpful to begin in the laboratory," she says. "You get a much better idea of what the science is about before you start selling the science or regulating it. Many people start out in the lab and find out that there are other avenues open to them outside bench research. They get an overall perspective in the lab and find other options outside it."

Palome's own career reflects that approach. With a Bachelor's degree in microbiology and a Master's in biochemistry, she worked for five years as a bench scientist. She left the laboratory to become a contingency recruiter for biotechnology and pharmaceutical firms. "I enjoyed contact with people and realized that I would enjoy human resources work outside the lab," she recalls. "I don't regret having left the lab, but I'm glad that I spent time there. Being able to talk the language and to understand my clients' technologies has been helpful in finding candidates who would be attractive to them."

She advises life scientists who want to work outside the laboratory to find out all they can about alternative careers and to examine their own personal strengths. "Spend a lot of time talking to people about what they do," she suggests. "And ask yourself what you are good at and not good at. For regulatory work and quality assurance, you need attention to detail and good rewriting skills. For sales and business development, you need to be outgoing and to have a sense of self-assurance."

# EVANSTON, ILLINOIS:

Started in 1993, the Center for Biotechnology at Northwestern University offers a Master's degree program that prepares professionals for careers in biotechnology. In recent years, the nature of graduates' first jobs has changed significantly. "In the past, most of our students went into the science segment," says Alicia Löffler, director of the Center. "Now, almost no one is going into the bench from our program. They're all going into business. Last year only one graduate out of 35 stayed on the lab bench."

That outcome stems in part from the fact that the Center does not offer a Ph.D. course. It also reflects recent changes in the nature of commercial biotechnology. "The biotechnology industry is more of a business development industry at present," explains Löffler. "If you want to go into lab bench work in biotechnology, you need a Ph.D. But if you want to go into industry without a Ph.D., the best way to go is through the business side."

Typically, graduates of the course go immediately into the business end of biotechnology companies without spending time in the lab. "Some go into business development strategies," says Löffler. "Many go into project management — for clinical trials, for example."

A strong scientific background helps candidates for business positions in biotechnology companies. "We find that our students have an edge because they know the science," says



Löffler. "In order to lead, you need to understand the science, as it helps you to predict technology shifts." Thus, biotechnology companies look very carefully at the scientific skills of candidates for business positions. "They say that recruits can learn the business but that the science is much more difficult to pick up," says Löffler.

Alicia Löffler Recruiters look for nonacademic skills as well. "Good verbal and written communication abilities are important," says Löffler. "So are interpersonal skills and the ability to be good team members." At a less tangible level, she adds, "Recruiters look for scientific and business curiosity and passion. They also want the ability to see the whole out of the unit. Scientists at the bench often have a very hard time putting their science in context."

What issues should life science students consider when they try to determine whether or not to stay at the lab bench? "Decide what will make you happy," Löffler advises. "If you really enjoy doing research, consider a Ph.D. and go into the lab. If you're interested in the applications of science, consider an outside job." She adds one piece of good news for students who see a future in the business side of biotechnology. "Every year, more courses like ours are emerging," she says. "Now, there are about 30 courses around the country." ♦



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY POST-DOCTORAL PROGRAM National Health and Environmental Effects Research Laboratory

The National Health and Environmental Effects Research Laboratory (NHEERL) of the U.S. Environmental Protection Agency (EPA) is seeking candidates to fill approximately 10 federal postdoctoral research positions during the coming year. As one of the national laboratories within the Office of Research and Development (ORD), NHEERL is EPA's focal point for scientific research on the effects of contaminants and environmental stressors on human health and ecosystems. NHEERL utilizes a multi-disciplinary approach to solving research problems. Assimilation and integration of information across environmental disciplines and across multiple levels of biological organizations (from molecular to the whole organism, and from the organism to the ecosystem levels) strengthen analyses of environmental issues. Several of these positions will present developmental opportunities which may be cross-organizational or cross-disciplinary; i.e., within or across NHEERL ecology or health divisions; across lab and human or ecological field studies; and across other national laboratories/centers within ORD or regulatory program offices within EPA.

Because of NHEERL's broad research mission and multi-disciplinary approach, we are seeking candidates from a wide range of disciplinary backgrounds. The preferred candidate will have earned a Ph.D. in one of the following areas (or a closely related field): biochemistry, biology (e.g., cellular, molecular), biomedical or chemical engineering, biostatistics/modeling, development and reproduction, ecology (e.g., aquatic, coastal systems, coral, ecosystem, estuarine, landscape, marine, microbial), ecotoxicology, endocrinology, environmental sciences, epidemiology, genetics, geographic information science, geomorphology, geostatistics, immunology, microbiology, neurosciences, pharmaceutical sciences, pharmacology, physical chemistry, physiology, plant physiology, population/community modeling, pulmonology, or toxicology. Candidates with an M.D. or D.V.M. degree and a background demonstrating experience conducting scientific research may also be considered.

NHEERL is organized into nine divisions which are located at various geographical locations and specialize in a different field of environmental health or ecology research. Post-doctoral positions to conduct research on environmental health are anticipated for divisions located in Research Triangle Park and Chapel Hill, NC. Post-doctoral positions to conduct ecology research are anticipated for divisions located in Duluth, MN; Gulf Breeze, FL; Corvallis and Newport, OR; and Narragansett, RI. To obtain specific information on the scientific research projects proposed for the NHEERL post-doctoral positions, please visit the NHEERL Internet site at <http://www.epa.gov/nheerl>. Applicants may also be considered for other NHEERL post-doctoral positions in addition to those specifically referenced on the NHEERL Internet site.

These positions are excepted service appointments for two to three years, and offer a salary range of \$34,575 - \$65,179, commensurate with qualifications. Our goal is to have successful candidates on board before October 1, 2000. The selected candidates will be eligible for a full benefits package, including relocation expenses, health insurance, life insurance, retirement, and vacation and sick leave.

**United States citizens are preferred and will be given first consideration for all positions. In the absence of qualified U.S. citizens, applications of U.S. permanent residents who are citizens of countries specified as exceptions to the appropriations act ban on paying non-U.S. citizens may be considered.** Further information on Federal employment of non-citizens is available at <http://www.opm.gov/employ/html/citizen.htm>.

The filing deadline for these post-doctoral positions is **June 30, 2000**. If you are interested, please send the following to Ms. Dorothy Carr, U.S. Environmental Protection Agency, Human Resources Management Division (MD-29), Research Triangle Park, NC 27711, Attn: NHEERL Post-Doctoral Program:

- Curriculum vitae;
- Letter of recommendation from your senior research advisor or other comparable official;
- Cover letter indicating your research interests, preferred research project(s) by number (see the NHEERL Internet site), preferred geographical location(s), **country of citizenship**, and **citizenship status (citizen or permanent resident)**;
- If you wish to be considered for multiple research projects and/or geographical locations, please indicate each project number and location in your cover letter;
- If you are claiming veterans' preference, please include your **DD-214** with your application package.

If you send your application via express mail, 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: NHEERL 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 by **June 30, 2000**. 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 **October 1, 2000**.

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Kelly Mc Naughton	Douglas R. Cavener	Vanderbilt University
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Nick Kappas	Jill C. Sible	Virginia Polytechnic Institute

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Kyria E. Prevost	Kristin Wobbe	Worcester Polytechnic Institute

### CHEMISTRY

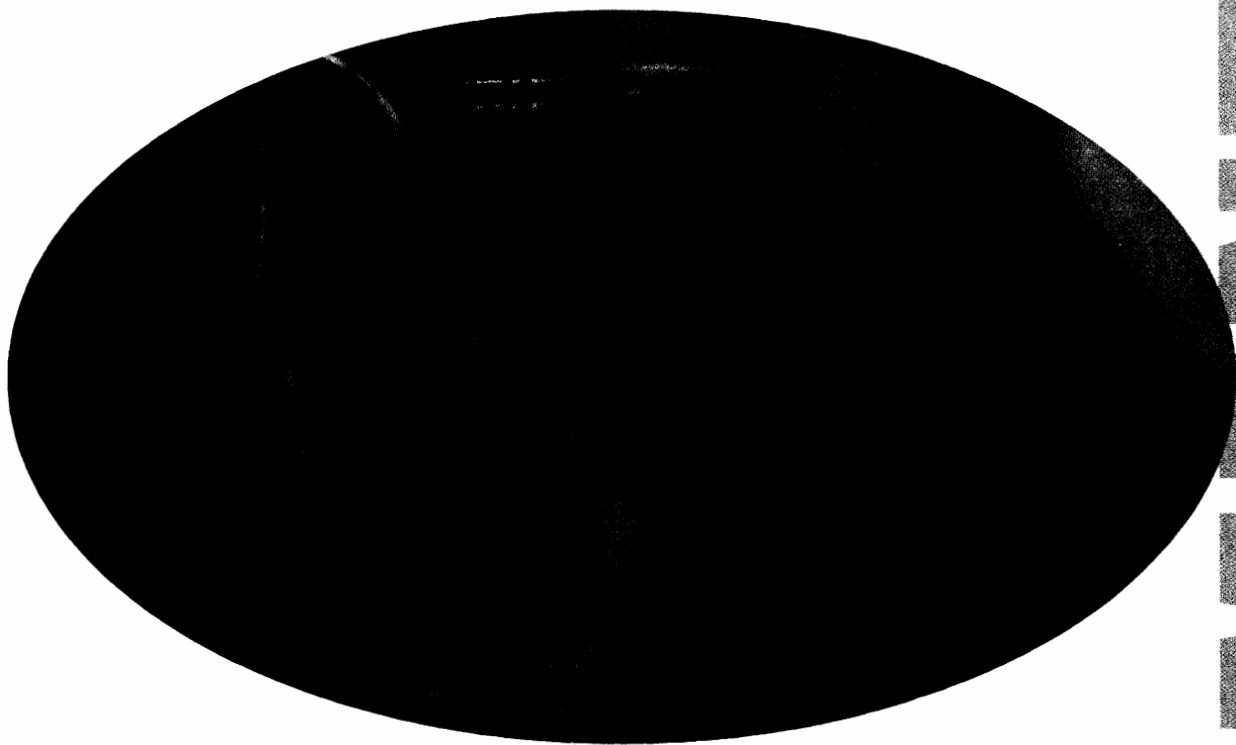
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Rebecca Newlin	Robert S. Paley	Swarthmore College
Timothy C. Bentz	Lev R. Ryzhov	Towson University
Carolyn M. Palomo	Thomas M. Mitzel	Trinity College
Julia L. Barkin	James C. Adrian, Jr.	Union College
Michael D. England	William F. Bailey	University of Connecticut
Paul D. Byrne	Jose S. Madalenoitia	University of Vermont
Brian Ferla	John C. Warner	UMASS, Boston
Jeffrey Byers	Karen L. Wooley	Washington University
Kevin K. Maddox	Richard A. Loomis	Washington University
Brenden Rickards	Kay Brummond	West Virginia University
Karen R. Hoffman	James P. Dittami	Worcester Polytechnic Institute

### PHARMACY

<i>Awardee</i>	<i>Mentor</i>	<i>School</i>
Kevin Haynes	Jon E. Sprague	Ohio Northern University
Nehal Modi	Eric H. Weyand	Rutgers University
Bernard J. Komoroski	Raman Venkataramanan	University of Pittsburgh
Frankie A. Tomblin, Jr.	Paula Jo Meyer Stout	West Virginia University

### BIOLOGY

<i>Awardee</i>	<i>Mentor</i>	<i>School</i>
Daniel Motola	Kalpana White	Brandeis University
Richard Ting	Robert F. Valentini	Brown University
Suzuko Suzuki	Thomas J. Leonard	Clark University
Danielle Liubicich	April L. Hill	Fairfield University
Jennifer B. Kossoris	Maria Burnatowska-Hledin	Hope College
J. Alex Feng	Richard P. Swenson	Ohio State University
Jeremy O. Jones	Richard J. Frisque	Pennsylvania State University
Rebecca Coburn	Roger M. Denome	Stonehill College
Laurence Shumway	Lawrence M. Schwartz	UMASS, Amherst
Christopher R. Clouser	Anita S. Klein	University of New Hampshire
Adam L. Bergeron	Judith L. Van Houten	University of Vermont
Jessica Condon	Pamela J. Weathers	Worcester Polytechnic Institute



*We're Pfizer. Each summer, we provide undergraduate fellowships that allow students to conduct independent research under the guidance of their faculty mentor. Colleges and universities throughout the U.S. nominate outstanding undergraduates. Fellowships are awarded on the merits of the students' research proposals, academic records, faculty recommendations and their passion for laboratory science. This Pfizer program provides students with an important opportunity to work in a stimulating laboratory environment. We congratulate the following 1999 Pfizer Summer Undergraduate Research Fellowship Awardees.*

"Scientific research drives discovery of novel therapeutants. Pfizer is proud to support scientific excellence and, in particular, to recognize promising young scientists of the future."

**John F. Niblack, Ph.D.**  
Vice Chairman, Pfizer Inc  
President, Pfizer Global Research & Development



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ACHIEVEMENT

# PHARMACIA

## ONCOLOGY RESEARCH

Pharmacia (PHA), newly formed from the merger of Pharmacia & Upjohn with Searle-Monsanto, is dedicated to improve quality of life and enhance longevity for human beings, through the discovery, development, manufacture and sales of pharmaceutical products.

We have taken major steps to enhance our commitment in Oncology and, as a result of these efforts, PHA has a unique portfolio of anti-cancer treatments that represent the current and future paradigms for oncology.

The Discovery Research Group in Italy has a proud and successful tradition in cytotoxic drugs.

Building from it, we are committing to innovation by targeting specific molecular defects of different tumors in areas such as cell cycle regulation, intracellular signaling, telomere integrity and senescence.

We are now seeking talented scientists with excellent backgrounds in these and other oncology areas, to join our team in a multidisciplinary and highly interactive environment. We offer competitive salaries, benefits and global career opportunities limited only by your skills, creativity and performance. The R&D Center in Italy, with 700 scientists, is one of the major R&D sites of the company. It has an excellent location in Nerviano, ten miles northwest of Milan.

### ***Dept. of Pharmacology***

#### **1-Scientist, Molecular Biology**

The successful candidate will develop genetically engineered cell and animal models. A Ph.D. in Molecular Biology or equivalent is required. Scientific background in telomerase/senescence and/or DNA damage checkpoints desirable.

#### **2-Scientist, *in vivo* Tumor Models**

The candidate will develop and characterize *in vivo* tumor models for testing potential anti-cancer therapeutic agents. A Ph.D. or equivalent background is required. Experience and significant knowledge in experimental tumor models, with particular focus on xenograft/orthotopic models and carcinogenesis models is also required.

#### **3-Scientist, Tumor Histopathology**

The candidate will characterize gene expression response to anticancer agents in xenograft and transgenic mouse models. He/she should have experience with traditional and molecular histopathology techniques. A Ph.D., M.D. or equivalent and a background in molecular genetics of cancer is required.

#### **4-Scientist, Transgenics Unit**

The successful candidate will contribute to the generation and characterization of mouse models of tumorigenesis, to be used for *in vivo* drug testing, and for generating transgenic primary cells and cell lines. A Ph.D. or equivalent required. The candidate should have extensive molecular biology expertise and prior successful experience in creating transgenic and knockout mouse models.

### **5-Scientist, Cell Biology**

The successful candidate will utilize cell and molecular biology techniques to study intracellular signaling pathways. A Ph.D. in Molecular Biology or a related field with prior experience in studying mitogenic and/or apoptotic signaling pathways required.

### **6-Scientist, Fluorescence Activated Cell Sorting**

The candidate will perform analysis of tumor samples and normal tissues for the expression of molecular markers using automated sampling systems. MS or equivalent background and experience required. Prior expertise in cell sorting and in cancer biology required.

### **7-Scientist, Quantitative PCR and Related Technologies**

The candidate will analyze tissue samples for the simultaneous expression of molecular markers. MS or equivalent background and experience required.

### **8-Scientist, Cell Based Assay Automation**

The successful candidate will be responsible for automated cell proliferation and apoptosis assays. MS or equivalent and prior experience in using robotic equipment and in tumor cell biology required.

***For additional information please e-mail to the Head of the Department:  
giulio.draetta@eu.pnu.com***

## ***Dept. of Biology***

### **9-Head, Bioassay lab.**

The candidate will direct a laboratory dedicated to assay development for HTS and secondary *in vitro* screens. The successful candidate will have a Ph.D. or equivalent qualification in Chemistry or Biological Sciences, and 5+ years of industry experience in drug discovery. A strong expertise in technologies and automation applied to throughput screening,

and a good knowledge of enzymology is required. Chemoinformatics know-how is desirable.

### **10-Scientist, Protein Chemistry/Mass Spectrometry**

The candidate will be responsible for a Protein Chemistry Unit working on analytical characterization of proteins to identify *in vivo* postranslational modifications and protein-protein interactions. The ideal candidate will have a Ph.D. and 3+ years of postdoctoral experience in protein mass spectrometry, and broad expertise in protein chemistry approaches.

### **11-Scientist, Biochemistry (3 positions)**

The candidates will work on production and characterization of proteins for x-ray crystallography and NMR studies. The successful candidates will possess a Ph.D. in Biochemistry/Molecular Biology with 2-5 years of postdoctoral experience in protein expression-characterization and structure-function relationships.

### **12-Scientist, Biophysics**

The candidate will apply biophysical approaches to enzymatic assays and protein-protein interaction studies. He/she will have a Ph.D. in Biophysics and 3+ years of experience in fluorescence applications such as FRET, fluorescence polarization and time-resolved fluorescence.

### **13-Scientist, Biochemistry/Molecular Biology**

The candidate will clone and characterize novel molecular targets in Oncology. He/she must have a Ph.D. in Biochemistry or Molecular/Cell Biology and 3+ years experience in signal transduction, preferably applied to the Oncology area. Previous experience in kinase enzymology is highly desirable.

***For additional information please e-mail to the Head of the Department:  
antonella.isacchi@eu.pnu.com***

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Please specify the position number in your application and send it by e-mail directly to the Head of the respective Dept, as indicated below each section. For information on PHA please refer to Diana Didoni, Pharmacia & Upjohn, S.p.A; Human Resources; Via R. Koch, 1.2; 20152 Milano, Italy.  
e-mail: diana.didoni@eu.pnu.com

**DEADLINE: June 30<sup>th</sup>, 2000**

## Process Sciences

From its founding in 1865, Bayer Corporation has developed into one of the most broadly based healthcare firms in the United States. Our 31-acre Berkeley, CA-based Biotechnology/Biological Products unit houses a world-renowned facility responsible for the research and development of leading biotechnology-derived products. Join Bayer's Berkeley team whose values are linked directly to our patients and to the lives of future generations.

### STAFF SCIENTIST

(Job Code SW0755)

We are seeking a highly dedicated team contributor to develop mammalian cell expression technology. Relying on your PhD and 6-8+ years of proven accomplishments, you will apply gene amplification and homologous recombination techniques to derive production cell lines for protein therapeutics. Expertise in protein-free cell culture, protein biochemistry and immunochemistry would be ideal. Excellent communication skills are essential for this position.

### STAFF SCIENTIST, ANALYTICS AND FORMULATION

(Job Code SW0624)

The successful candidate will direct the laboratory responsible for structural characterization of recombinant proteins using HPLC, SDS-PAGE, amino acid analysis, protein sequencing and mass spectrometry. In addition, you will develop characterization plans for protein therapeutics and take major responsibility for writing characterization documents for regulatory submissions. Requires a PhD with 6+ years of proven experience in protein structural analysis and peptide mapping, protein sequencing and mass spectrometry. At least 3 years of supervisory background in an industry setting will round out your qualifications.

### SCIENTISTS

(Job Code SW0733)

You will conduct process development in animal cell culture, bioreactor control, on-line sensor monitoring, and protein characterization. You will design optimization experiments for cultivation conditions and medium composition, plus explore new technologies for process monitoring and control. Requires a PhD with postdoctoral or 2+ years' experience; an MS with 4+ years' experience or a BS with 6+ years' experience will substitute. You must have a background in protein chemistry, biochemistry, and/or biochemical engineering. Experience in computer hard/software programming also needed.

Bayer offers an attractive compensation and benefits package. Please forward your resume, indicating Job Code of interest, to: Bayer Corporation, Pharmaceutical Division, P.O. Box 3238, Scranton, PA 18505-0238. Fax: (888) 805-7474. E-mail: [bayerpharma@alexus.com](mailto:bayerpharma@alexus.com) Please indicate appropriate Job Code on all correspondence. For more information on Bayer, search: <http://www.bayerus.com> An Equal Opportunity Employer M/F/D/V.



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## FACULTY POSITION

Roswell Park Cancer Institute is seeking a full-time faculty member at the level of Assistant or Associate Member in the broad area of Human Genetics. Strengths of RPCI's Cancer Genetics department include outstanding programs in Genomics, Basic Science and Transitional Research with significant collaborative relationships with the State University of New York at Buffalo and the Hauptman-Woodward Research Institute, a center of excellence for crystallography and structural biology.

Candidates must hold a Ph.D. or MD/Ph.D. in an appropriate scientific based discipline with a minimum of three years postdoctoral experience in a research environment. The ideal candidate should have a strong publication record, with a history of external funding (Associate Member) or the clear potential to establish an independent research program (Assistant Member).

Interested candidates should send curriculum vitae, a concise statement of their research plan, and three letters of reference to:

Dr. David Kowalski  
Search Committee Chair  
Cancer Genetics Department  
Roswell Park Cancer Institute  
Elm and Carlton Streets  
Buffalo, NY 14263

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A postdoctoral research associate position in gastrointestinal neuroscience is immediately available for an outstanding scientist to work on the molecular basis underlying the role of G-protein coupled receptors in human gastrointestinal function and diseases. The applicant should have a strong background in protein chemistry and/or molecular biology and previous experience in receptor biology. The successful applicant will participate in a collaborative translational research effort among world-recognized clinical investigators and basic researchers. Research facilities include several state-of-the-art biochemistry, genetics, morphology, structural biology, and transgenic mouse cores.

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Raul Urrutia, MD/Michael Camilleri, MD  
Mayo Clinic  
Alfred 2-435

200 First Street SW  
Rochester, MN 55905

E-mail: [urrutia.raul@mayo.edu](mailto:urrutia.raul@mayo.edu)

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## Florida State University School of Computational Science and Information Technology

Applications and nominations are sought for up to twenty tenure-track faculty positions and several postdoctoral research fellows in the newly established interdisciplinary School of Computational Science and Information Technology at the Florida State University, Tallahassee, Florida. Rank and department affiliation are open. Additional faculty appointments will be made in the future.

The Florida State University enjoys Research University I status accorded by the Carnegie Foundation for the Advancement of Teaching. Located in the State Capital, it provides faculty, research staff and students an opportunity to work closely with state agencies in solving critical problems facing the state and the nation. Its research budget from government and private sources exceeded \$100 million in fiscal year 1998-99. Its royalty income from faculty innovations licensed to industry was \$46 million in 1998 ranking it third in the nation. The campus enrollment for Fall 1999 is over 32,000, of which 75% are undergraduates, 19% graduates and 6% unclassified. In order to encourage and promote research and graduate education, the State has awarded tier-I research university status to FSU.

The School of Computational Science and Information Technology is founded upon the vision to educate scientists for the twenty-first century multidisciplinary workplace, to develop a national resource for tackling problems of overriding societal interest, and to create a multidisciplinary research atmosphere conducive to the participation of scientists from national laboratories, industries and academia. The School spans several colleges and its faculty members are expected to exercise both leadership and enabling roles within the School in addition to fulfilling responsibilities to programs of affiliated departments. Applicants for associate and full professor positions should have demonstrated internationally recognized leadership in teaching and conducting research in CSIT fields.

Successful applicants should have backgrounds attested to by degrees and work experience in both high-performance computing and a related CSIT field, including applied mathematics, computer science, information science and technology, bioscience, cognitive science, geoscience, materials science, and physics. Applications will be reviewed in an ongoing fashion by a committee representing these fields.

Applicants should submit a one-page statement of their philosophy of computational science and information technology, a curriculum vitae including a list of technical publications, syllabi of any interdisciplinary courses previously taught, and names of at least three individuals to serve as references for their candidacy. Applicants for associate or full professor positions should list at least five references. All applicants should indicate their academic areas of interest. Candidates should mail or email application materials to:

Chair, Search Committee  
Attn: Ms. Connie Stoutamire  
School of Computational Science and Information Technology, Florida State University,  
400 Dirac Science Library,  
Tallahassee, FL 32306-4120,  
[csit\\_positions@csit.fsu.edu](mailto:csit_positions@csit.fsu.edu).

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At PE Corporation we're committed to ensuring that biological information plays a pivotal role in the future of medicine and the well being of humankind. From genomic information to instrument systems and advanced Life Science Technology. **Tropix**, a division of PE Corporation, located in Bedford, MA is currently recruiting for the following position:

### POSTDOCTORAL OPPORTUNITY

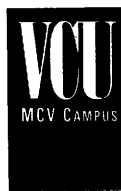
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A postdoctoral position is available immediately in a dynamic multi-disciplinary and stimulating environment to develop novel protein-protein interaction analysis in mammalian cells. Candidates must be highly motivated and should have a Ph.D. with strong background in signal transduction, cell biology and biochemistry. Experience in protein-protein interaction analysis, such as yeast two-hybrid system is preferred, but not required. Applicants should have a recent doctoral degree in relevant disciplines and demonstrate excellent communication and writing skills.

#### Related Literature-

1. Rossi, F. et al. (1997) *PNAS* 94:8405-8410.
2. Blakely, B.T. et al. (2000) *Nature Biotechnology* 18:218-222.

Interested candidates should Email their resumes to: [pecorpad@resume.isearch.com](mailto:pecorpad@resume.isearch.com) OR send your resume to: **PE Biosystems / Tropix Division**, 35 Wiggins Avenue, Bedford, MA 01773 or fax to: (781) 275-8581. For more information on this and other career opportunities, visit our website at [www.pecorporation.com](http://www.pecorporation.com) We provide generous compensation and one of the industry's most comprehensive benefit plans. PE Corporation is an Equal Opportunity Employer and welcomes diversity in the workplace.



Virginia Commonwealth University

## MOLECULAR BIOLOGIST IN DNA REPAIR AND SIGNAL TRANSDUCTION

The Departments of Radiation Oncology ([www.radonc.rdo.vcu.edu](http://www.radonc.rdo.vcu.edu)) Pharmacology, and Toxicology and the Massey Cancer Center at the Medical College of Virginia at Virginia Commonwealth University invite outstanding applications for a tenure-track faculty position as Assistant/Associate Professor. The successful applicant, with a Ph.D. and/or M.D. degree and several years of post-doctoral experience, is expected to develop an independent and extramurally funded research program, to develop research collaborations with other members of the program and to teach post docs, medical residents, and graduate students. The successful applicant is expected to complement a highly interactive, multidisciplinary program that investigates the molecular mechanisms of signal transduction, cell proliferation, and apoptosis underlying tumor radioresistance, and applies novel approaches to radiation treatment using drugs and gene therapeutic tools. Applicants with interests in DNA repair, signal transduction, and cellular redox effects are particularly encouraged to apply. Applications should include a CV, reprints of publications, a statement of research plans, and three letters of recommendation. This material should be sent to: **Kristoffer Valerie, Ph.D., Department of Radiation Oncology, Virginia Commonwealth University, P.O. Box 980058, Richmond, VA 23298-0058**

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## ARENA PHARMACEUTICALS, INC.

Emerging San Diego based biotechnology company is seeking candidates for the following positions:



### Ph.D. Behavioral Pharmacologists (Job Code: FM01)

Positions are immediately available in our multidisciplinary metabolic physiology/neuroscience program. Candidates with experience in ingestive behavior, memory and learning, antidepressants and anxiolytics, antipsychotics, cardiovascular functions or pain and analgesia are especially encouraged to apply.

### Ph.D. Biochemical Pharmacologist (Job Code: FM02)

This position requires the ability to carry out both *in vitro* and *in vivo* measures of drug receptor interaction and effects on brain neurochemistry. Experience in radioligand binding, neurotransmitter release assays and *in vivo* microdialysis is required.

### Ph.D. Neuroanatomist/Neuropharmacologist (Job Code: FM03)

This position requires expertise in basic neurochemical and neuroanatomical techniques. Experience with cellular analysis of gene expression utilizing *in situ* hybridization histochemistry, immunohistochemistry and double labeling methods is required. Previous experience in relation to G protein-coupled receptor gene expression would be an advantage.

**Applicants should have a minimum of two years post-doctoral experience. Excellent organizational and teamwork skills required.** Our current discovery research is focused on the characterization of *in vivo* function of orphan G-protein-coupled receptors and the evaluation of novel small molecules in rodent models. We are seeking candidates with demonstrated independent research abilities that are interested in careers in the exciting field of drug discovery and development.

Arena is a biotechnology company that has developed a broadly applicable, platform technology that identifies drug candidates more efficiently than traditional drug discovery techniques. Our proprietary screening technology, which we refer to as CART, allows us and our collaborators to rapidly identify drug candidates by eliminating an essential and time-consuming step in traditional drug discovery — identifying a receptor's native ligand.

Arena offers an exciting work-environment, competitive salary, and excellent benefits package, including 401(k) and stock options. For consideration, please send or fax resume and cover letter to: **Arena Pharmaceuticals, Inc., Human Resources**, 6166 Nancy Ridge Drive, San Diego, CA 92121, USA. Fax: 858-453-7210

## Project Manager Diagnostics



VICAM manufactures and sells tests used to safeguard the world's food supply. One of VICAM's tests serves as an international "gold standard" for the measurement of the most potent known carcinogen in foods.

Reporting to the Vice President of R & D, the successful candidate will be responsible for overseeing and executing complete product development cycles of kits for detection of analytes relevant to the food industry. Responsibilities include team management, design, execution and interpretation of experiments leading to new products, conduct of international and domestic validation studies, and supervision of daily operations of laboratories. HPLC and immunoassay experience required, with Ph.D. in life sciences or chemistry.

ONLY applicants with record of successful product launches and supervisory experience will be considered. Must be willing and able to interact with customers of varied educational backgrounds and geographical locations.

For consideration, contact VICAM, (Job Code: PMD), 313 Pleasant Street, Watertown, MA 02472, FAX: (617) 923-8055, email: [HRD@vicam.com](mailto:HRD@vicam.com). Principals.

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- Develop preclinical project plans and budgets
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- Highly refined writing skills are a must, as well as effective interpersonal communication skills
- Able to work independently and demonstrate strong analytical and problem-solving skills

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**Reference Code: SS-P/DM**



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Explore new worlds of pharmaceutical innovation in a work environment that encourages innovation. As a \$32+ billion international organization with a focus on research, Bayer is making great strides in curing and preventing diseases. This translates into career pathing at unprecedented rates. Currently, the Department of Diabetes and Obesity Research at Bayer is seeking a Behavioral/In-Vivo Scientist and a Protein Biochemist at the Associate Scientist or Senior Associate Scientist level. The successful candidates will join a multidisciplinary team focused on the discovery of central and peripheral targets involved in obesity in our worldwide headquarters located in WEST HAVEN, CT.

## Explore our world.

### **BEHAVIORAL/ IN-VIVO SCIENTIST**

Candidate will provide support for *in-vivo* pharmacological validation of compound efficacy and side-effect profiles to support multiple programs in obesity, appetite control and wasting disorders. The individual must have previous experience with animal models and experience in collection, management and statistical analysis of experimental data. Job Code# ASMW0820

### **PROTEIN BIOCHEMIST**

Candidate will provide cell biology/protein biochemistry research support to identify and characterize compounds directed at targets useful for obesity treatments, and assist in establishing high-throughput screening assays. Job Code# ASMW0835

Applicants should have a MS/BS with 2-6 years of direct experience relative to the requirements of each position. The ideal candidates will possess good interpersonal, organizational, and oral/written communication skills. In addition, the candidates must demonstrate enthusiasm, flexibility, and teamwork skills.

If you're in the market for unlimited opportunity, forward your resume (including job code) to our resume response center at: Bayer Corporation, Pharmaceutical Division, P.O. Box 3238, Scranton, PA 18505-0238, Fax: 1-888-805-7474, E-mail: [bayerpharma@alexus.com](mailto:bayerpharma@alexus.com) or visit us at: [www.bayerpharma-na.com](http://www.bayerpharma-na.com) and go to the career section for additional opportunities and information. An Equal Opportunity Employer M/F/D/V. Bayer Corporation is committed to enhancing and maintaining cultural diversity within our work environment.



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### Scientists: Cancer Research

The Institute for Drug Development (IDD) is a non-profit, multidisciplinary research center, focused exclusively on the discovery, development and evaluation of new therapies for the treatment of patients with cancer. It is the research arm of the Cancer Therapy and Research Center and is affiliated with the University of Texas Health Science Center at San Antonio. The IDD has committed itself to a major focus on basic research to streamline and accelerate the drug evaluation process and optimize the treatment of individual patients. Our state-of-the-art facilities include a microarray-based gene expression profiling core, a bioinformatics core, a flow cytometry core and a gene mutation/SNP scanning core. Applications are invited for the following positions in the Department of Basic Research.

#### Senior Scientists

**Gene expression analysis.** A Ph.D. biologist or biochemist with at least 5 years experience in mammalian gene expression analysis to direct research in mobilizing gene expression profiling approaches towards improved cancer diagnosis and in vitro and in vivo modeling for pre-clinical studies.

**Gene transfer and modeling.** A Ph.D. biologist or biochemist with at least 5 years experience in mammalian gene construct design and gene delivery systems to create novel approaches to pre-clinical cancer models and gene-transfer based therapies, including genetic vaccination.

Candidates must have proven ability to identify and implement state-of-the-art techniques in the field and excellent publication records. Superb interpersonal and leadership skills are needed to take the results into the clinic in collaboration with our colleagues in translational and clinical research. Candidates are expected to establish independent research programs and compete for grant support. Publication in peer-reviewed journals is essential.

#### Scientist

**Bioinformatics.** To optimize and accelerate the integration of genetic and molecular criteria in anti-cancer drug evaluation and therapy, we seek a highly motivated Ph.D. scientist with 3 years experience in bioinformatics. You will explore ways to optimize drug evaluation programs using recent advances in genomics. You will guide the creation of an institution-wide bioinformatics network for data collection and processing, ensure that appropriate algorithms, analytical tools and data are applied and developed and make optimal use of the Institute's core facilities and drug evaluation infrastructure. Publication in peer-reviewed journals is essential.

#### Postdoctoral Fellows

Our emerging pharmacogenomics program needs postdoctoral fellows to design and apply SNP screening tests to stratify cancer patients in clinical research. Applicants should have an M.D. or Ph.D. degree.

Qualified candidates are encouraged to send a resume noting the position of interest to the Cancer Therapy and Research Center. Fax to (210)616-5875 or email to [personnel@saci.org](mailto:personnel@saci.org). The CTCRC mailing address is 8122 Datapoint Dr., Suite 250, San Antonio, Texas 78229. Visit our website at [www.ctrc.saci.org](http://www.ctrc.saci.org). CTCRC is an EO/AA employer.



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[www.ambion.com/jobs](http://www.ambion.com/jobs)



## The Science of Agricultural Genetics

### Post-Doctoral Research Scientist (Job #076E)

This is a postdoctoral position sponsored by Pioneer's Discovery Research Program. It requires conducting a basic research in the area of plant virus replication. The successful candidate is expected to take a leading position in the execution of this research project and to coordinate any publication and presentation activities. The position requires a Ph.D. degree in biology or related disciplines and knowledge of modern molecular biology techniques. Familiarity with plant viral systems would be desirable. Competence in searching databases and analysis of gene expression profiles should also benefit this position. Experience in protein engineering would be helpful but is not essential. Please submit your curriculum vitae in scannable format to:

Pioneer Hi-Bred International, Inc. ATTN:  
Human Resources - Research (Job #076E), PO  
Box 1004, Johnston, IA 50131-1004; e-mail:  
[jobsresearch@phibred.com](mailto:jobsresearch@phibred.com). For more  
information on this position visit our website  
[www.pioneer.com](http://www.pioneer.com).

Pioneer Hi-Bred International, Inc., is the world leader in the discovery, development and delivery of elite crop genetics. We are committed to developing and incorporating both time-tested approaches and cutting edge technologies that will continue to make our products superior to any in the industry. Pioneer's research programs, research collaborations, extensive germplasm base and advanced work in genomics are unmatched by our competitors.



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- Mammalian Cells

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Send cover letter and resume to:  
HR Department, AME  
3520 Dunhill Street, San Diego, CA 92121  
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### NATIONAL INSTITUTES OF HEALTH National Institute of Allergy and Infectious Diseases Post-doctoral Fellow: Infectious Diseases Research in Virology

Position will be available in the Molecular Viral Biology Section of the Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases. The research activities involve (1) elucidation of the molecular events that occur during replication and transcription of the genome of mosquito-borne flaviviruses; (2) detailed definition of the processing of the viral polyprotein into individual functional viral proteins; (3) the use of new "rescue" systems for these viruses to examine basic questions of viral genetics, molecular virology, viral pathogenesis, and the molecular basis of attenuation; (4) production of interesting and informative viral mutants that might prove useful in immunization of humans; and (5) evaluation of the immunologic determinants of resistance to infection and illness caused by these flaviviruses. This full-time research position offers a unique opportunity to work on investigations that range from basic molecular virology to applied vaccinology, and provides excellent laboratory-based experiences for post-doctoral scientists within seven years of receiving the Ph.D. and for M.D.s at all levels of training who plan a career in research in infectious diseases. The project will be supervised by Drs. Robert Chanock and Ching-Juh Lai. Starting salary ranges from \$31,000 to \$122,400 commensurate with experience/present salary. Please send curriculum vitae and three references to: Dr. Robert M. Chanock, Chief, Laboratory of Infectious Diseases, NIAID, Bldg. 7, Room 100, 7 Center Drive, MSC 0720, Bethesda, MD 20892. FAX: (301) 496-8312 E-mail: rchanock@niaid.nih.gov.

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The qualified candidate will possess a Master's degree or equivalent with at least 10 years of relevant work experience. Relevant experience should include design, development, deployment, and support of complex software systems. A solid technology background encompassing both UNIX and NT systems, Oracle, Java, Visual basic, project management tools, process control systems, LIMS, and manufacturing systems is ideal. Knowledge of the pharmaceutical industry and a life science background are highly desired.

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Reporting to the Director of Technology Transfer and interacting with Regeneron's legal and scientific staff, primary responsibilities include contract administration, supervision of the Technology Transfer Administrator and patent due diligence. Duties will include drafting and negotiating Material Transfer Agreements and License Agreements, as well as conducting patent searches. Qualified candidates will have an MS in biochemistry, molecular biology, or cell biology and minimum 2 years related experience. You must be a good team player but also able to work independently. Excellent organizational and written and verbal communication skills required. Experience in patent searches and knowledge of patent databases desirable. Computer proficiency essential.

*Regeneron is located in Tarrytown, NY, just 30 minutes north of NYC & 10 minutes from the Tappan Zee Bridge. Our campus is situated in a pleasant, country-like setting. In addition to the beautiful surroundings, Regeneron offers an outstanding benefits package including relocation, medical, dental, vision, Rx, stock options, 401(k) plan with match, tuition reimbursement, short & long term disability, life insurance and paid holidays, vacation and personal days. Please visit our website at [www.regn.com](http://www.regn.com) for more information. For consideration, please submit a cover letter indicating position of interest, along with a resume & salary requirements specifying Job Code EB777 to: Human Resources*

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Send curriculum vitae, bibliography and names of three references to:

Abner Louis Notkins, M.D., Chief  
Experimental Medicine Section  
Infection and Immunity Branch, NIDCR  
Building 30, Room 121  
30 Convent Drive, MSC 4322  
Bethesda, MD 20892-4322  
Voice: (301) 496-4535  
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Research

## Work at the forefront.

SAIC Frederick works at the forefront of biomedical research at the National Cancer Institute (NCI-FCRDC) in Frederick, MD. We are currently recruiting for a Director of Core Services to serve as Corporate Vice President — Program Management to be responsible for the scientific support services provided at FCRDC.

### Director of Core Services

Core Services provides scientific, laboratory and administrative support services for research activities at FCRDC, including NCI, on-site contractors and other NIH laboratories. The program areas include Analytical Chemistry Laboratory, Molecular Technology Laboratory, Flow Cytometry Laboratory, Confocal Laser-Scanning/ Electron Microscopy Laboratory, Protein Expression and Production Laboratory, Protein Chemistry Laboratory and the Animal Sciences Program. These Core Services consist of over 350 employees, approximately 35 with PhDs.

Candidate must have a PhD or MD with a strong background in biological sciences, preferably extensive research activities with protein expression and analysis demonstrated by a strong publication record.

The FCRDC is housed within 35 miles of the NIH campus, which allows convenient exchanges of research material and information between FCRDC and NIH scientists. Currently, the FCRDC is embarking upon a process of upgrading, updating and enlarging its scope of core support activities, and will be assessing additional cutting-edge research technologies to increase its range of support services devoted to enhancing biomedical research. The Director of Core Services is central to this expanded effort.

At SAIC Frederick, we believe that people are our greatest resource. Interested candidates, please forward your resume to: SAIC Frederick, Human Resources, PO Box B, Frederick, MD 2102-1201; FAX: (301) 846-5172; e-mail: [sallwein@mail.ncifcrf.gov](mailto:sallwein@mail.ncifcrf.gov)

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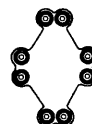
### GROUP LEADERS

#### *C. elegans* Genetics/*D. melanogaster* Genetics

Overseeing one of these competitive and productive groups within Exelixis, you will be responsible for maintaining a flexible, team-oriented culture focused on integration with several research programs within the company. This will involve recruiting, mentoring and managing a staff of 35 scientists engaged in forward and reverse genetic approaches to identify novel gene targets for the pharmaceutical and agricultural industries. You will contribute to long-range scientific planning and oversight of ongoing research programs, including providing leadership for project prioritization, identifying and championing new areas of research, and overseeing budget, equipment and space use. The ideal candidates will have a PhD or equivalent with 3+ years experience managing a group. Excellent written and oral communication skills and a strong publishing record are required.

Exelixis offers highly competitive salaries and benefits, generous equity participation, and a stimulating, highly interactive research setting that recognizes and rewards achievement. Please send your resume/CV to: Exelixis, Inc., HR Department, Job #: 00-105/00-106, Fax (650) 837-7226; or email [careers@exelixis.com](mailto:careers@exelixis.com). EOE.

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## **General Manager / Technology Development**

We are looking for an exceptional engineer and manager with proven track record building and leading a team of engineers, software developers and molecular biologists. Must have mastery of the DNA analysis field, and manage both internal and external resources. Successful product development experience required. Job Code: 046-00

## **Instrument Development**

You must have a strong track record developing instrumentation for DNA analysis. Expertise in liquid handling, optics and computer control, as well as familiarity with microfabrication methods is required. M.S./Ph.D. Engineering required. Job Code: 047-00

## **Molecular Biology Methods**

We are looking for a Ph.D. Biochemistry/Biology with a 4+ year track record of DNA methods development. Encyclopedic knowledge of molecular biology protocols and methods, as well as multiple related publications. You must have extensive knowledge of the gene expression analysis field and strong quantitative skills. Job Code: 048-00

*Please send cover letter, resume /  
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Working in our Research Data Management/IM/CIS/R&D department you will participate in defining strategic and scientific directions for managing SB proprietary chemical structure information. Using your scientific background, you will interact with senior scientists and managers as a primary contact point for ensuring key chemical and biological information is optimally leveraged. You will also manage the software and processes for submitting chemical structures for registration into the corporate database. Collaborating with software developers in the definition and implementation of new chemical database systems/processes is also a responsibility. We require an advanced degree in Chemistry (organic/medicinal chemistry a plus), and 5+ years of experience in a large-scale application of computers to chemical information. Specific experience in designing/implementing chemical databases, supervising, and experience with relational database technology are a plus. (Ad Code: 2K0552)

### **Software Programmer**

Working in our Research Data Management/Information Management department you will participate in the development of new software and systems for the registration, searching, manipulation and use of chemical structures. Maintaining existing applications for handling chemical information, and investigating new technologies emerging for chemical applications are also responsibilities. We require a degree in Computer Science or a related discipline, and 3+ years' working in relevant information technologies. Your experience developing software in UNIX and/or Windows NT environments should be supported by programming skills in C and Visual Basic or similar languages. Experience in chemical structure data handling software and/or databases is essential. An understanding of SQL, relational database technology and web programming protocols and techniques are also necessary. (Ad Code: 991987)

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**Corporate Communications**

**Research Associates/Scientists**

**QC Supervisor/Associates**

If interested in any of the above positions, forward your resume, indicating position title or discipline, to: Aviron, Human Resources, 3055 Patrick Henry Drive, Santa Clara, CA 95054; fax (408) 845-8712; email to [egrimaldi@aviron.com](mailto:egrimaldi@aviron.com) (please use job title in subject line). No phone calls, please.

### PHILADELPHIA OPPORTUNITIES

**Materials Control Manager**

Ensure compliance in the Materials Control function, focusing on logistics, receiving, storage, distribution, and record keeping. A BA/BS in a scientific discipline with 3-5 years experience in a GMP environment is preferred. Job Code 91202

For the Materials Control Manager position, please forward your resume, indicating Job Code, to: Aviron, Human Resources, 3055 Patrick Henry Drive, Santa Clara, CA 95054; fax 408-845-8712; email to [egrimaldi@aviron.com](mailto:egrimaldi@aviron.com) (please use job title in subject line). No phone calls, please.

**QA Supervisor**

Create and maintain internal auditing and regulatory compliance systems, plus review/audit. Requires a BS in a scientific discipline, 3+ years QA experience and knowledge of cGMPs. Job Code 00216

**Production Supervisor**

Oversee cleanroom activities during product filling, train/schedule personnel, and confirm QA release. Requires 1-3 years supervisory experience in a pharmaceutical environment and a Bachelor's degree in a scientific discipline. Job Code 00308.

**Project Coordinator/QA Validation**

Responsible for the qualification of equipment and utilities at our Philadelphia and UK sites. This position will require travel. Requires a BS degree in a scientific, engineering or related discipline and a minimum of 5 years experience in validation project management, including a working knowledge of validation protocol writing and testing. Job Code 00427

For the QA Supervisor, Production Supervisor, and Project Coordinator/QA Validation positions, please forward your resume, indicating Job Code, to: Aviron, 3001 Red Lion Road, Philadelphia, PA 19114; fax (215) 281-2428; or email [egrimaldi@aviron.com](mailto:egrimaldi@aviron.com). No phone calls please.

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## Tenure-Track Faculty Position in Comparative Anatomy and Developmental Biology Quinnipiac University

The Quinnipiac University Department of Biological Sciences invites applications for an academic year, full-time, tenure-track position at the Assistant Professor or Associate Professor level. The successful candidate will have expertise in Comparative Anatomy and Developmental Biology, and will be expected to teach sections of an introductory lecture and laboratory in each area, as well as to participate as a member of a team of faculty teaching a multi-section undergraduate course (General Biology or Anatomy and Physiology). In addition, there will be opportunities to develop undergraduate or graduate elective courses in the faculty member's areas of expertise and interest. A strong commitment to teaching, significant teaching experience, and a willingness to involve undergraduate students in research are all highly desirable. The position requires a doctoral degree, and will be effective with the fall semester of 2001.

The University, located in Hamden, Connecticut, is ten miles north of New Haven and Yale University, and within easy traveling distance of New York and Boston. Please submit a letter of application describing your approach to teaching and your areas of research interest, a current resume, transcripts, and three letters of recommendation no later than October 15, 2000, to: **Robert M. Martinez, Professor and Chairman, Department of Biological Sciences, Campus Box 61, Quinnipiac University, Hamden, CT 06518.**

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To apply, please submit a cover letter describing your qualifications and salary requirements, résumé, and contact information for three references to:

**Mr. Gregory Stokes**  
American Association for the Advancement of Science  
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Requires a BA/BS in Biochemistry, Cell Biology, or Immunology (MS preferred) and specific knowledge of cellular interactions and signaling mechanisms that regulate biological responses. Job Code 60142

**Scientist I, Analytical Sciences**

Requires a PhD and 2+ years relevant postdoctoral or industrial experience that includes supervision of technical staff in an analytical methods development laboratory. Job Code 60345

**Scientist I, Antibody Discovery**

Requires a PhD and 2+ years postdoctoral experience in biochemistry or immunology within cancer biology, cell biology, autoimmunity or inflammation. Job Code 60145

**Scientist I, Tumor Immunology**

Requires a PhD, at least 2-3 years postdoctoral experience in tumor or cellular biology, working knowledge of drug/antibody development, and a background in experimental therapeutics with hands-on animal tumor model experience. Job Code 60245

**Scientist I, Methods  
Optimization & Validation**

Requires a PhD or equivalent and relevant academic or industrial experience in the development of biochemical and biological assays. Job Code 53045

**Sr. Associate II,  
Antibody Discovery**

Requires a PhD in a relevant discipline and up to 2 years postdoctoral laboratory experience or equivalent. Job Code 60144

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Director, Genomics Core Laboratory. The laboratory is currently making custom arrays, using DNA arrays from Affymetrix, and developing new bioinformatics tools. Responsibilities include managing the laboratory; designing, planning, and executing research projects and analyzing results; publishing and presenting data; and providing scientific support and training. Candidate should possess a Ph.D. (or equivalent) and 2-5 years of genomic experience. **Job #C00-22S**

Postdoctoral Fellow in the laboratory of Dr. Steven Finkbeiner to investigate the structure and function of huntingtin, the protein responsible for Huntington's disease. Experience in the production and isolation of recombinant proteins and site-directed mutagenesis is required. Experience in protein crystalization is desirable. **Job #N00-08S**

Postdoctoral Fellowship in the laboratory of Dr. Stephen Young to investigate the molecular genetics of lipid metabolism and atherogenesis. Should have experience with molecular genetics and/or lipid metabolism. **Job # C00-20S**

Postdoctoral Fellowship in the laboratory of Dr. Robert Farese, Jr., to study triglyceride synthesis (DGAT) enzymes and their role in triglyceride metabolism and obesity. Experience in molecular biology and lipid metabolism required. **Job # C00-10S**

Postdoctoral Fellowship in the laboratory of Dr. Yadong Huang to study the effects of apolipoprotein E isoforms on lipid metabolism in the plasma, liver, and brain of transgenic or gene targeted mouse models. A strong background in molecular biology and lipid metabolism is required. **Job #C99-070S**

Postdoctoral Fellowship in the laboratory of Dr. Israel F. Charo to study chemokines and their receptors. Current projects include the use of transgenic and knockout mice for the study of the roles of chemokines/receptors in human disease and regulation of the immune response. **Job #C98-026S**

Postdoctoral Fellowship in the laboratory of Dr. Mike McCune to study HIV pathogenesis, with particular emphasis on effects on the hematolymphoid system. Candidates should preferably have background in hematology or immunology, with experience in flow cytometry, cell culture, and assays of hematopoietic function. MD clinical fellows interested in this area are encouraged to apply. **Job #V00-08S**

Postdoctoral Fellowship in the laboratory of Dr. Eric Verdin to study the role of acetylation of histone/non histone proteins in transcriptional regulation with a particular emphasis on the role of histone deacetylases and the role of chromatin modification and remodeling in HIV transcription and the mechanism of Tat activity on the HIV promoter. Candidate should possess a Ph.D. or M.D. or both with strong background in molecular biology and/or protein biochemistry. **Job # V00-07S**

All positions require a Ph.D., M.D., or both. Please mail CV and references, indicating job number, to:

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**Computational Research Associates** - We require a BS/MS degree in a technical field, demonstrated skill in programming languages such as C, JAVA or Perl, and familiarity with UNIX. Proven skills in shell script writing, analyzing large datasets and writing software that interfaces with relational databases, and training in biology are a large plus. Reasonable math skills an asset.

**Laser Capture Microdissection Research Assistant** - We require experience in histology and microscopy as this will be an asset in acquiring cryostat tissue sections, performing procedures to tag cells of interest, laser-capturing identified cell types, and working closely with pathologists and residents. Candidates should hold a biology-focused MS degree or BS degree with several years of related experience.

**Gene Expression Analysis Research Assistant** - This position involves support of microdissection, RNA isolation, and probe preparation in order to carry out DNA microarray- and in situ hybridization-based gene expression analyses. The ideal candidate will have demonstrated the ability to work independently toward research objectives and have experience working with RNA and associated molecular biology techniques, DNA microarrays or fluorescent in situ hybridization (FISH), as well as familiarity with downstream analysis software. Responsibilities will include maintaining and obtaining tissue samples from appropriate animal models, RNA isolation, probe synthesis, and subsequent hybridization in either DNA microarray or FISH experiments, image collection and quantitation. Familiarity with neuroscience, tissue culture, and/or sequence analysis software are pluses. Candidates should hold a biology-focused MS degree or BS degree with several years of related experience.

**Molecular Biology Research Assistant** - This position involves support of functional genomics/RNA profiling experiments through construction and screening of subtracted cDNA libraries using techniques developed for limited amounts of RNA to identify genes regulated during several human diseases. Technical expertise in molecular biology is essential, with emphasis on safe handling of RNA, PCR, and gene cloning techniques. Computer literacy for common PC programs as well as common gene analysis software (GCG, Unigene, etc.) is required. Demonstrated ability to work with minimal supervision and to interact with bioinformaticians is a plus. Candidates should hold a biology-focused MS degree or BS degree with several years of related experience.

**Postdoctoral Fellows** - The Institute currently has two NIH training grant positions available for postdoctoral study. Research objectives will focus on the effects of alcohol on the nervous system. Candidates will create a project combining gene expression analysis with computational approaches, either analysis or modeling, to gain new understanding of processes affected by alcohol. Ideal candidates will have demonstrated molecular neurobiology expertise as well as familiarity with computational tools (Perl, JAVA, C, etc.) typically used for web-based tool development or modeling. The distribution of effort in the lab and at the computer will vary for each individual project. Candidates must hold a PhD or MD and be a citizen or noncitizen national of the United States or have been lawfully admitted for permanent residence at time of appointment.

Cover letter specifying the position for which you are applying and CV may be forwarded to the attention of Linda C. Mitchell, Employment Manager, Thomas Jefferson University, 201 S. 11th Street, Philadelphia, PA 19107 or by email at linda.mitchell@mail.tju.edu. Equal Opportunity Employer.

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## U.S. ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES

Awards sponsored by the National Research Council are available for research to be conducted at the U.S. Army Medical Research Institute of Infectious Diseases, Ft. Detrick, Frederick, MD. Applications are invited from individuals interested in developing new pharmacologic approaches to the antiviral therapy of filovirus (Ebola) or orthopoxvirus (monkeypox) infection, and in studying disease mechanisms as they relate to therapeutic interventions. The investigator will have the opportunity to use new methods of *in vitro* quantitation of antiviral drug activity, and to evaluate therapy in murine and nonhuman primate models of virus infection, under BSL-3 and BSL-4 biocontainment.

Stipends begin at \$39,270 per annum, or higher for those with more than five years from an advanced degree. Ph.D. or M.D. is required; U.S. citizenship is preferred. Experience in virology (or other areas of microbiology) or in medicinal chemistry, and in the evaluation of antimicrobial therapy in animal models is advantageous. Awards are for one year, with possible renewal up to three years.

### FOR FURTHER INFORMATION CONTACT:

John W. Huggins, Ph.D., Chief, Department of Viral Therapeutics  
Virology Division, USAMRIID, Ft Detrick, Frederick MD 21702  
Phone: 301-619-4837 • Fax: 301-619-2290  
E-mail: huggins@ncifcrf.gov

Applications, submitted directly to the NRC, are accepted on a continuous basis throughout the year. Those postmarked by August 15 will be reviewed in the October competition, by January 15 in February, and by April 15 in June.

For application materials contact:

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## **Director Board on Biology**

The Board on Biology of The National Academies is seeking a Director to develop and direct the scientific, administrative, and fiscal management responsibilities for the Board, including its committees and staff; supervise and conduct ongoing and new studies; provide assistance to the Commission on Life Sciences' (CLS) Executive Director in matters concerning biology and related areas; and perform other assigned duties.

Requires a Ph.D. or equivalent, preferably in the biological sciences or one of the life science disciplines plus at least 6 years of directly related, increasingly responsible experience in an academic or government environment (preferably a combination of both). Familiarity with a wide range of areas from ecology to genetics, molecular biology, and neuroscience, and knowledge of biology and science policy/trends in emerging areas (biotechnology and genomics, etc.) is essential. Also requires excellent communication, planning, and organizational skills, as well as the ability to develop new projects/secure new funds to support Board activities while simultaneously coordinating and supervising the completion of ongoing projects.

We offer a competitive salary, an excellent benefits package, and a dynamic work environment. For consideration, please forward your resume with salary requirements, indicating the job code, to:  
**The National Academies, (WM-BB), NAS343, 2101 Constitution Avenue, NW, Washington, DC 20418.**  
E-mail: [ohrresum@nas.edu](mailto:ohrresum@nas.edu)  
EOE, M/F/D/V.

**[www.national-academies.org](http://www.national-academies.org)**

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## **AGRICULTURAL FIELD RESEARCH & DEVELOPMENT POSITION JOB# R9900-060**

Cargill is a global leader in the processing and distribution of agriculture-based renewable resources, and an emerging leader in the conversion of these resources to new products. Cargill seeks to create long-term value by developing and commercializing a wide variety of technology-based specialty food, feed, and plant growth enhancement products.

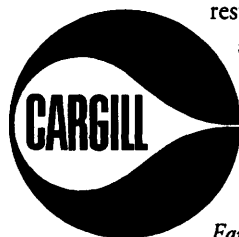
Cargill has an immediate opening for a new full time Field R&D Scientist position that will be based in central California. In addition to the state of California, regional responsibilities will include the Pacific Northwest, with a future opportunity for some global research activities. Travel will range from 30-50%.

As part of the new Specialized Agronomic Products Business Unit, the successful candidate will be expected to manage field R&D programs, which will include planning and implementing personal research trials, coordinating field studies by private and public research cooperators, analyzing and interpreting data, communicating results, and managing budgets (e.g., travel, grants). Field evaluation work will focus on research leads originating from internal R&D capabilities, as well as from outside technologies via licensing, alliance, or other business-driven opportunities. Providing technical support to customers, as well as to sales and business personnel, will also be routinely expected.

Candidates for this position must have an MS degree plus 5-7 years of field R&D experience, or a Ph.D degree plus 3-5 years of field R&D experience. The MS or Ph.D. degree must be in an agricultural-related science, preferably in horticulture or agronomy. The prior field R&D work should include significant experience in the evaluation of agchem products that directly promote or enhance plant growth/crop production.

The candidate must be able to work independently and possess excellent verbal and written communication skills. The candidate must have demonstrated experience with the development of field plot designs, understanding of statistics, and use of computers/computer software. Knowledge of California crop production practices, as well as general agchem product registration requirements/processes, will be a definite plus.

If you would like to be part of a company that is raising the standard of living worldwide, consider Cargill. Please submit resume online by visiting our resume builder at [www.cargill.com/jobs/index](http://www.cargill.com/jobs/index). MUST specify R9900-060 in the area titled "Job Number". The Internet is the preferred method for receiving resumes. If this is not an option for you, please forward resume to PO Box 5697, MS#10, Attn: JTS, Minneapolis, MN 55440-5697.



*Equal Opportunity Employer*

## POSITIONS OPEN

### INVESTIGATOR MICROBIAL BIOCHEMISTRY

SmithKline Beecham, an international producer of pharmaceuticals and consumer health care products, is seeking an individual with a background in molecular biological and microbial biochemical antibacterial research to serve as Investigator at its research and development facility in Collegeville, Pennsylvania. Principal duties include: conceive, plan, initiate, and direct molecular biological and microbial biochemical antibacterial research, particularly in the area of nucleotide phosphorylation, proteases, and cell envelope-anchoring pathways, with the aim of identifying new compounds that inhibit bacterial targets.

Minimum requirements are a Ph.D. in microbial biochemistry or molecular biology and three years of experience in the job offered or three years of experience in microbial biochemical and molecular biological antibacterial research, which shall include experience in (1) analyzing proprietary and public DNA and protein databases using computer software programs such as GSG and Lasergene; (2) cloning and expressing DNA sequences encoding potential antibacterial targets; (3) preparing bacterial cell extracts from gram-positive and gram-negative bacteria; (4) utilizing molecular biological and protein biochemical methods and techniques including PCR, RT-PCR, agarose gel electrophoresis, DNA extraction, purification, ligation, cell fractionation, transformation, and sequencing; (5) utilizing FPLC, protein concentration, and freeze-drying to purify overexpressed proteins; (6) utilizing polyacrylamide gel electrophoresis, Western blotting, limited proteolysis, mass spectroscopy (Seldi M/S), GC, HPLC, and steady-state enzymology to characterize purified proteins; (7) designing and implementing *in vitro* assays including fluorescence, luminescence, radioactive, and spectroscopic-based assays suitable as high-throughput screens in microtiter plate format.

SmithKline Beecham offers a competitive compensation/benefits package. For confidential consideration, please forward résumé and salary requirements to: **Dr. John Lonsdale, Assistant Director, Anti-Infectives, SmithKline Beecham Pharmaceuticals, P.O. Box 5089, UPI345, Collegeville, PA 19426-9901.** We are an Equal Opportunity Employer; Minorities/Females/Disabled/Veterans.

### ASSISTANT PROFESSOR DEPARTMENT OF OTOLARYNGOLOGY HEAD AND SURGERY Wayne State University

An academic tenure-track position is available for Molecular Biologist with experience in head and neck cancer or squamous cell biology. Background in cell cycle regulation, apoptosis, and/or genetics is strongly recommended. Collaboration with clinical and basic researchers is strongly encouraged. The applicant should have at least a Ph.D. with two Postdoctoral Fellowships. Researcher with funding or who demonstrates such potential should send cover letter and curriculum vitae to:

**George H. Yoo, M.D.**  
Department of Otolaryngology  
Wayne State University  
4201 St. Antoine, 5E UHC  
Detroit, MI 48201  
Telephone: 313-577-0805

Wayne State University is an Equal Opportunity/Affirmative Action Employer.

Cleveland Chiropractic College, Los Angeles, invites applications for a **FULL-TIME TEACHING POSITION** in human gross anatomy effective September 2000. A Ph.D. in anatomy is required along with teaching experience at the college level. Please send a letter of application, a copy of unofficial transcripts, and three letters of recommendation to: **Chair, Basic Science Department, Cleveland Chiropractic College, 590 North Vermont Avenue, Los Angeles, CA 90004.** FAX: 323-660-3190; e-mail: [morka@cleveland.edu](mailto:morka@cleveland.edu). Filing deadline is June 30, 2000.

## POSITIONS OPEN

### GENETICS

The Department of Biology at Juniata College ([website: www.juniata.edu/biology/](http://www.juniata.edu/biology/)) invites applications for a **TENURE-TRACK POSITION** in genetics to begin January 2001. We seek an individual utilizing modern molecular techniques to address questions in population genetics or phylogenetic systematics. Teaching responsibilities may include participation in the combined biology/chemistry freshman laboratory, genetics with a combined genetics/cell biology laboratory, biostatistics, and specialty course in the successful candidate's discipline. This position is made available by a major expansion of the Department's focus in the areas of biochemistry and cell and molecular biology (BCMB). Construction of a new 75,000 square-foot science building, projected to be complete for the 2002-2003 academic year, will house the BCMB faculty of the Biology Department as well as the Chemistry Department. Juniata College is an undergraduate liberal arts institution with an enrollment of 1,250 and a strong program in the natural sciences. Candidates must be willing to mentor students in supervised and independent research efforts.

Start-up funds and dedicated research space will be provided. Applicants with an earned Ph.D. and post-doctoral or teaching experience should submit one-page statements of (1) teaching experience, philosophy, and interests; and (2) a description of their research program appropriate for engaging undergraduates in research at a liberal arts college; as well as (3) curriculum vitae; (4) undergraduate and graduate academic transcripts; and (5) three letters of recommendation to: **Gail Libby Ulrich, Director of Human Resources, Juniata College, Huntingdon, PA 16652.** Review of applications will begin August 18, 2000, and continue until the position is filled.

*Affirmative Action/Equal Opportunity Employer.*

### BIOCHEMISTRY INSTRUCTOR (FACULTY ASSOCIATE)

The Department of Chemistry and Biochemistry at Arizona State University seeks an individual to serve as a **TEMPORARY INSTRUCTOR** for academic year 2000-2001. Responsibilities include teaching two three-hour courses each semester. Courses to be taught include both beginning and more advanced levels of biochemistry, including lecture and laboratory. A Ph.D. in biochemistry, chemistry, or a related field with a strong background in general biochemistry is required. Excellent communication skills with students, teaching assistants, faculty, and staff also required. Evidence of excellence in teaching is desirable. The nine-month salary is \$39,000.

To apply, submit letter of application; curriculum vitae; and the names, addresses, and telephone numbers of three professional references to:

**Professor Seth Rose, Associate Chair  
Department of Chemistry and Biochemistry  
Arizona State University, Main Campus  
P.O. Box 871604  
Tempe, AZ 85287-1604**

Deadline: May 31, 2000, 5 p.m.; every two weeks thereafter until the position is filled. *Affirmative Action/Equal Opportunity Employer.*

### ANTICIPATED ASSISTANT PROFESSOR VETERINARY ANATOMY AND CELL BIOLOGY

Required qualifications: Ph.D. or equivalent degree in a biological science or biomedical sciences; post-doctoral experience; research background in cell/molecular biology; ability to teach in a departmental course in the professional curriculum; have or will have extramural funding. Salary will be competitive. Application deadline is July 28, 2000, or until candidate is selected. Submit letter of application and résumé to: **Gary E. Wise, Ph.D., Veterinary Anatomy and Cell Biology, Louisiana State University, Reference #000878, Baton Rouge, LA 70808.** Telephone: 225-346-3246.

*LSU is an Equal Opportunity/Equal Access Employer.*

## POSITIONS OPEN

### ASSISTANT/ASSOCIATE PROFESSOR College of Physicians and Surgeons Columbia University

A tenure-track position with a competitive recruitment package is now available with joint appointments in the Department of Ophthalmology and a basic science department. The candidate should have a strong background in molecular biology, cell biology, and transgenic technology or molecular genetics. While the candidate may not have worked in the field of eye biology, he or she must have an interest in degenerative diseases of the retina and have publications in journals of the first rank. Please submit curriculum vitae, reprints of your two most important papers, three reference letters, and a description of present and future research plans to: **Abraham Spector, Ph.D., Chair, Search Committee, Department of Ophthalmology, College of Physicians and Surgeons of Columbia University, 630 West 168th Street, New York, NY 10032.** E-mail: [as42@columbia.edu](mailto:as42@columbia.edu). Responses should be received no later than August 1, 2000. *Columbia University takes Affirmative Action to Ensure Equal Opportunity.*

**FACULTY POSITION** in enzymology or protein engineering: The Department of Biochemistry and Microbiology invites applications for a tenure-track position. The successful candidate will develop a strong research program in enzymology or protein engineering with the perspective to become a member of the Research Center on structure, function, and protein engineering. He or she will have to teach in French. Starting date is January 1, 2001. Applicants must hold a Ph.D. degree and have relevant postdoctoral experience. They should submit their curriculum vitae, a statement of research interests in enzymology or protein engineering, and have three letters of recommendation sent to: **Denis Mayrand, Ph.D., Directeur, Département de biochimie et de microbiologie, Faculté des sciences et de génie, Université Laval, Québec G1K 7P4 Canada.** FAX: 418-656-3664. Applications are due by September 22, 2000.

*In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. In compliance to its Employment Equity program, Laval University intends to hire women on behalf of its vacant positions.*

### SUPERVISORY PLANT PATHOLOGIST

The U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), seeks a Supervisory Plant Pathologist to conduct research on viral diseases of corn and to serve as research leader for the Corn and Soybean Research Unit, Wooster, Ohio. The Pathologist will provide research leadership and expertise on the virology, biology, and/or ecology of disease and be a member of the interdisciplinary ARS-Ohio State University Maize Virus Research Program. There is opportunity for professional interaction with stakeholders, customers, and with faculty and graduate students in the Department of Plant Pathology of The Ohio State University as well as an adjunct faculty appointment. Closing date is July 7, 2000. For more information, contact: **Dr. M. G. Redinbaugh, Telephone: 330-263-3965.** See "opportunities" at [web-site: www.ars.usda.gov](http://web-site: www.ars.usda.gov) or **Telephone: 301-504-1482** (Number ARS-X0W-0259). *U.S. citizenship required. USDA/ARS is an Equal Opportunity Provider and Employer.*

**ASSISTANT/ASSOCIATE PROFESSOR** position open for an experienced molecular biologist to join a multidisciplinary team to work on basic molecular mechanisms of gene therapy in our center, which focuses on musculoskeletal diseases such as osteoporosis and arthritis. Opportunity to closely interact with experienced investigators in gene therapy vectors, molecular genetics, and bone biology. A strong performance in terms of scientific publications and successful external grant competition is essential. Salary and benefits competitive; possible long-term position. Send résumé, cover letter, and names of three references to: **David J. Baylink, M.D., Musculoskeletal Disease Center, P.O. Box 7210, Loma Linda, CA 92354.**



**St. Jude Children's  
Research Hospital**

ALSAC • Danny Thomas, Founder

## POSTDOCTORAL POSITION

A postdoctoral position is available to examine the function of cyclin C/CDK8 in transcriptional regulation. This project currently emphasizes the role of phosphorylation in active and inactive RNA pol II complexes. The work also focuses on the functional characterization of several novel alternatively spliced cyclin C isoforms. Future work will involve the generation of transgenic and knockout mice. Experience in molecular biology, cell culture, cell biology and/or genetic manipulation of mice would be beneficial. St. Jude offers a stimulating research environment, competitive stipends and a professional development fund for journal subscriptions and travel to meetings. Applicants must have a Ph.D. and/or M.D. degree, or be currently enrolled in a graduate program and completing their degree. Please send a current C.V., a statement of research interests and names and addresses of three references to: **Jill Lahti, Ph.D., Department of Tumor Cell Biology, St. Jude Children's Research Hospital, 332 N. Lauderdale, Memphis, TN 38105. E-mail: jill.lahti@stjude.org**

**www.stjude.org**  
eoe m/f/d/v



**Washington**

WASHINGTON UNIVERSITY IN ST. LOUIS

**School of Medicine**

### Department of Pathology and Immunology Faculty Position in Structural Biology

Washington University School of Medicine is seeking to fill a tenure track Assistant or Associate Professor position in structural biology. The primary appointment will be in the Department of Pathology and Immunology with a secondary appointment available in the Department of Biochemistry and Molecular Biophysics. The successful candidate will be expected to develop their own independent research program utilizing structural approaches to address issues relevant to any of a number of areas including but not limited to signal transduction, eukaryotic gene regulation, cell biology, or molecular pathogenesis of disease. Candidates should be interested in, and be capable of bringing a structural perspective to, the broad range of research areas represented within the Washington University Medical School community. The position is best suited for a protein crystallographer, although individuals using other biophysical methods for studying macromolecular interactions will be considered. A generous start-up package is available. Applicants should submit curriculum vitae, selected reprints, a short research summary, and three letters of recommendation to:

**Herbert W. Virgin, IV, M.D., Ph.D.**  
Chair, Structural Biology Search Committee  
Associate Professor of Pathology and Immunology  
Washington University School of Medicine  
Department of Pathology and Immunology  
Box 8118  
660 South Euclid Avenue  
St. Louis, MO 63110-1093

## ANIMAL PROGRAM DIRECTOR

The National Institute on Drug Abuse (NIDA), National Institutes of Health (NIH) invites applications for a laboratory animal veterinarian to serve as Animal Program Director of an AAALAC International accredited animal care and use program. The Program includes primates, rodents and other species and is located at NIDA's Intramural Research Program (IRP), on the Johns Hopkins Bayview Campus in Baltimore, Maryland.

The successful candidate will oversee the staff of the current animal resources service of NIDA, and will provide expert supervision in laboratory animal medicine, routine diagnostics, surgical support for the research program, and training of animal program staff.

The selectee must possess experience with supervision of a transgenic animal breeding program. The supervisory and regulatory responsibilities of this position require the applicant to hold a veterinary degree (D.V.M., V.M.D., or equivalent). The well-qualified candidate must also have experience in a supervisory and management role with oversight and maintenance of an AAALAC International accredited research animal program. Also desirable is experience in design of a state-of-the-art animal facility. Prior experience with a variety of nonhuman primates (*Macaca mulatta*, *Saimiri sciureus*) and possession of or eligibility for board certification in laboratory animal medicine are highly desirable.

The starting salary is commensurate with qualifications and experience, and includes a full Federal benefits package. Relocation expenses may be paid.

### How to Apply:

Applicants should send a curriculum vitae with bibliography of publications, three (3) letters of reference (at least two from non-collaborators), and a copy of doctoral degree to:

**NIH/NIDA/IRP**  
5500 Nathan Shock Drive  
Baltimore, MD 21224  
Attention: **Morgan DuBrow, Chief**  
Human Resources Management Section  
Building C, Room 247  
(e-mail: **MDUBROW@intra.nida.nih.gov**)

### Closing Date:

No closing date for receipt of applications - open until filled. However, a cut-off for Search Committee review and evaluation will be established as necessary. Questions may be addressed to Mr. DuBrow on 410-550-1638 or by e-mail.

*NIDA is an Equal Opportunity Employer. Applications from minorities and women are encouraged.*

## POSITIONS OPEN

### SENIOR TOXICOLOGIST OPEN EXAMINATION

The Department of Pesticide Regulation in the California Environmental Protection Agency seeks Senior Toxicologists. Openings exist in Sacramento, California. Persons in this position will supervise a group of toxicologists and other scientists and perform the most difficult evaluations and assessments related to human health. Persons experienced in conducting human pesticide exposure assessments, evaluating toxicological or exposure studies, or preparing risk assessments are encouraged to apply. To qualify, persons must hold a Doctoral degree in toxicology or closely related field (e.g., public health, bio- or environmental chemistry, pharmacology, or physiology) and a minimum of four years of relevant postdoctorate experience, which must include the interpretation of toxicological findings relative to probable human health or environmental hazard and one year developing and designing toxicological research and investigative studies. The salary range is \$5,755 to \$6,957 per month. A comprehensive benefits package is available, which may include limited payment of relocation expenses. Submit application and résumé to the address below by the final filing date of June 30, 2000. This position requires an oral examination, which may be scheduled in August/September 2000. For a copy of the examination bulletin and state application form, visit the California State Personnel Board's websites: [www.spb.ca.gov/jobsrd.cfm](http://www.spb.ca.gov/jobsrd.cfm) and [www.spb.ca.gov/bulletinsrd.cfm](http://www.spb.ca.gov/bulletinsrd.cfm) or call the Department of Pesticide Regulation Job/Examination line at Telephone: 916-323-0547.

Department of Pesticide Regulation  
Human Resources Branch  
830 K Street, Room L1  
Sacramento, CA 95814-3510  
Attention: Linda Sarabia

### TECHNICAL ASSISTANT MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

The Harvard-MIT Division of Health Sciences and Technology seeks an enthusiastic individual to work on NASA-funded projects to engineer cartilage and cardiac tissues for *in vitro/in vivo* studies starting from cells, biomaterials, and bioreactors. Specific tasks include cell preparation; tissue culture; animal handling; molecular, histological, biochemical, and mechanical analyses; and general laboratory maintenance.

Requirements: a B.S. degree and previous laboratory experience. Master's degree preferred. Must have outstanding organizational skills. This position is available May 2000 for one year with possible extension.

Please send résumé and names of three references to: L. Freed, MIT, E25-342, 77 Massachusetts Avenue, Cambridge, MA 02139-4307. E-mail: [lfreed@mit.edu](mailto:lfreed@mit.edu). MIT is an Equal Opportunity/Affirmative Action Employer. MIT is a nonsmoking environment.

UCLA's Jonsson Comprehensive Cancer Center is seeking to recruit a physician-scientist who has a fundamental interest in novel cancer therapeutics and the intention and ability to lead a broad-based experimental therapeutics program at UCLA. The position will assume extensive laboratory experience and a proven ability to obtain peer-reviewed grant support. The position will be at the rank of **ASSOCIATE PROFESSOR**, with appointments in the appropriate clinical and basic science departments. The appointment will include an endowed chair as well as a significant start-up package. Interested candidates are invited to submit curriculum vitae and three references to:

Search Committee (Attention: SiUn Cha)  
Jonsson Comprehensive Cancer Center  
Box 951781, UCLA School of Medicine  
Los Angeles, CA 90095-1781

UCLA is an Affirmative Action/Equal Opportunity Employer.

## POSITIONS OPEN

### FACULTY POSITION REEVE-IRVINE CENTER FOR NERVOUS SYSTEM REGENERATION RESEARCH University of California, Irvine

Applications are invited for a nontenure track faculty position at the **ASSISTANT PROFESSOR** level in the area of nervous system regeneration research. This appointment will be made as part of the continuing development of the Reeve-Irvine Center. We are especially interested in candidates using cellular, molecular, or genetic approaches to spinal cord injury/regeneration research. Although this position is not tenure track, salary would be guaranteed on a year-to-year contract. The ability to develop and maintain an independent research program and to work collaboratively with other investigators is essential. Send curriculum vitae, list of publications, a summary of research goals, and names and addresses of at least three individuals who can provide letters of recommendation to:

Debra Caputo  
Reeve-Irvine Postdoctoral Search  
Department of Anatomy and Neurobiology  
University of California  
364 Medical Surgery II  
Irvine, CA 92697-1275

University of California, Irvine is an Equal Opportunity Employer committed to excellence through diversity.

### ASSISTANT/ASSOCIATE PROFESSOR FOREST WILDLIFE SCIENCE/MANAGEMENT

The School of Forestry and Wildlife Sciences at Auburn University is seeking applications for a faculty position at the Assistant or Associate Professor level in the area of forest wildlife science/management. This is a 12-month, tenure-track position with primary responsibilities in teaching (50%) and research (50%). Application procedures and full listing of vacancy announcement are available at website: <http://www.forestry.auburn.edu>. Ph.D. in one of the natural resources or biological sciences required, with at least one degree in wildlife. Postdoctoral experience and/or experience in the management of wildlife populations or habitats desirable. Evidence of or potential for teaching excellence and development of competitively funded research program in forest wildlife science/management compatible with current programs essential. Contact: Dr. Ralph E. Mirarchi, School of Forestry and Wildlife Sciences, 108 M. White Smith Hall, Auburn University, Auburn, AL 36849-5418. Telephone: 334-844-9253; e-mail: [rmirarch@acesag.auburn.edu](mailto:rmirarch@acesag.auburn.edu). Auburn University is an Equal Opportunity/Affirmative Action Employer. Applications from minorities and women are encouraged.

### PROJECT MANAGER REPRODUCTIVE BIOLOGIST

Manufacturer of diagnostics for agricultural applications is developing products to improve livestock performance. Current products include a test that serves as an international "gold standard" for the measurement of one of the most potent known carcinogens in foods.

As Project Manager, you will manage the complete product development cycle for animal reproductive performance product, including research and development at the bench, transfer to manufacturing, beta sites, market introduction, and product validation. Recent industrial research and development and product launch experience absolutely required. Must have expertise in field of spermatogenesis. Immunocytochemistry and molecular biological techniques needed. Ability to devise and execute steps to drive product through pipeline essential for success.

We offer a competitive salary and benefits package. For consideration, please e-mail or send résumé immediately with cover letter indicating salary history to: P.O. Box 319, Watertown, MA 02472-0319. E-mail: [julia\\_friedman@hotmail.com](mailto:julia_friedman@hotmail.com).

Principals. Equal Opportunity Employer.

## POSITIONS OPEN

### DEPARTMENT OF BIOLOGY UNIVERSITY OF VICTORIA Victoria, British Columbia, Canada

The Department of Biology invites applications for a full-time tenure-track position at the **ASSISTANT PROFESSOR** level in terrestrial ecosystem ecology. The successful candidate will be appointed initially as a Junior Industrial Research Chair in a Natural Sciences and Engineering Research Council (NSERC) Industrial Research Chair (IRC) program on the environmental management of drinking water. This program is directed toward an ecosystem approach to terrestrial-aquatic linkages and management of natural drinking water resources. The appointee will be expected to develop a rigorous independent research program funded by external support and to participate in the research activities of the IRC program. Complementarity with existing research groups in the Department of Biology and related departments (e.g., Earth and Ocean Sciences, Environmental Studies, Geography) will be an asset. Teaching initially will be at a reduced load. Additional information: Qualifications include the completion of a Ph.D. and demonstrated strong research and teaching potential. A letter of application, clearly outlining the candidate's expertise, teaching experience, and research interests; curriculum vitae; and names, addresses, FAX, and e-mail addresses of three references should be sent by 15 August 2000 to:

Chair, Department of Biology  
University of Victoria  
P.O. Box 3020, STN CSC  
Victoria, BC V8W 3N5 Canada  
E-mail: [finnegan@uvic.ca](mailto:finnegan@uvic.ca)  
Website:

<http://darwin.ceh.uvic.ca/biology/position.html>

The University of Victoria is an Employment Equity Employer and encourages applications from women, persons with disabilities, visible minorities, and aboriginal peoples. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents.

### COURSE DIRECTOR/SENIOR LECTURER MEDICAL MICROBIOLOGY

The Microbiology Department of University of Texas Southwestern Medical Center seeks a qualified individual with a Ph.D., D.V.M., or M.D. degree to serve full-time as Director of its medical microbiology course for sophomore medical students. The Director will coordinate all aspects of the course while working with a dedicated, talented teaching faculty (already in place). This is a nontenure-track faculty position renewable on an annual basis. The course includes didactic lectures in immunology, bacteriology, virology, mycology, and parasitology, as well as small group discussions and bacteriology/parasitology laboratory exercises. Candidates should have a background in one or more of these subdisciplines, outstanding organization skills, and a commitment to education with evidence of excellence as a teacher or with prior experience as a course director. University of Texas Southwestern offers an attractive benefits package. The start date is between July 1, 2000, and July 1, 2001. Salary will be commensurate with experience. Send a letter of interest, curriculum vitae, and three sealed letters of recommendation to: Dr. Ellen Vitetta, Director, Cancer Immunobiology Center, University of Texas Southwestern Medical Center, 6000 Harry Hines Boulevard, NB9-210, Dallas, TX 75235. FAX: 214-648-1204; e-mail: [evitet@mednet.swmed.edu](mailto:evitet@mednet.swmed.edu). University of Texas Southwestern is an Equal Opportunity Employer.

**POSTDOCTORAL POSITION** available immediately to examine the interaction between G protein-coupled receptors and G proteins. Previous experience in molecular biology is required; familiarity with the yeast *Saccharomyces cerevisiae* is desirable but not required. Send résumé to: S. Misuraca, UCLA/Department of Anesthesiology, Box 951778, Los Angeles, CA 90095-1778. UCLA is an Equal Opportunity Employer.

**Case Western Reserve University  
University Hospitals of Cleveland  
Cancer Center**



A Comprehensive Cancer  
Center Designated by the  
National Cancer Institute

A Colon Cancer Genetics Translational  
Research Fellowship is available in the  
Howard Hughes Medical Institute Laboratory  
at Case Western Reserve University  
with Dr. Sanford Markowitz.

Candidates should have a MD or MD/PhD degree and  
an interest in a career in academic medicine.  
Candidates must be permanent residents or citizens  
of the United States.

Send CVs and names of references to:

Sanford Markowitz, MD/PhD  
c/o Christine Rhoads  
Cancer Center, Wearn 152  
11100 Euclid Avenue  
Cleveland OH 44106-5065

Applications from women and  
underrepresented minorities are encouraged.

## Computational Chemistry

AstraZeneca is a global leader in research, development, and marketing of gastrointestinal, oncology, anesthesia (including pain management), cardiovascular, central nervous system (CNS), and respiratory products. Leveraging our powerful science-based culture, strengthened R&D platforms, and enhanced worldwide marketing/sales assets, AstraZeneca has emerged as the third largest pharmaceutical company in the world.

Currently, we have openings for Computational Chemists at our US corporate headquarters in Wilmington, Delaware. We are particularly interested in creative, self-motivated individuals with excellent interpersonal skills to work as members of discovery project teams. Highly desirable areas of expertise include: structure-based design, combinatorial chemistry library design, pharmacophore elucidation, optimization of ADMED/DMPK properties, and leading informatics applications. Computational chemists holding a Ph.D. degree are encouraged to apply.

We offer an excellent compensation and flexible benefits program, including relocation, and opportunities for growth with one of the world's leading pharmaceutical research organizations. To apply, please send your c.v. to: **K. Riley, Human Resources OW3, AstraZeneca, 1800 Concord Pike, P.O. Box 15437, Wilmington, DE 19850-5437. Fax: 302-886-7124.**

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*MJ Research is a leading manufacturer of laboratory products for biomedical research, including thermal cyclers for DNA amplification, as well as related consumable products and other DNA analysis equipment.*

## National Sales Manager

Directly manage our North American sales force from our South San Francisco facility. Develop training programs, set sales goals and supervise our highly educated sales force. Must have 5 or more years in research product sales and sales management. Advanced degree required, preferably in Molecular Biology or related field.

Other opportunities available at MJ Research, Inc. at either our South San Francisco, California or Waltham, Massachusetts facilities include:

### Inside Sales Representatives (CA and MA)

### Chemist/Scientist (MA)

### Product Manager – Enzymes Group (CA)

### Product Support Specialists (CA and MA)

### Technical Marketing Writer (MA)

MJ Research offers competitive salaries and excellent benefits. If interested in more information about these and other jobs we are offering, please see our web site at <http://www.mjrc.com>



**MJ RESEARCH, INC.**

Interested candidates should submit a resume to  
**HR Department, MJ Research Inc.,  
590 Lincoln Street, Waltham, MA 02451.**  
Fax to 617-972-8085 or email to [hr@mjrc.com](mailto:hr@mjrc.com).

PLEASE REFERENCE THE APPROPRIATE JOB TITLE. All candidates must be eligible to work in the US without a sponsor. AA/EOE.

**www.mjrc.com**

## POSITIONS OPEN

### INVESTIGATOR PHARMACEUTICAL DEVELOPMENT

SmithKline Beecham, an international producer of pharmaceuticals and consumer health care products, is seeking an individual with a background in pharmaceutical technology development to serve as Investigator, Pharmaceutical Development, at its research and development facility in King of Prussia, Pennsylvania. Principle duties include conceiving, planning, and executing preformation and formulation studies of drug candidates to develop robust, solid dosage formulations including immediate-release, controlled-release, and delayed-release dosage forms; and to carry out physicochemical characterization of drug candidates, employing state-of-the-art methods, techniques, and computer programming.

Minimum requirements are a Ph.D. in pharmaceuticals and at least two years of experience in the job offered or two years of experience in pharmaceutical technology development, which shall include experience in (1) formulation design of pharmaceuticals; (2) development of solid dosage forms of drug candidates; (3) determination of physicochemical, physicochemical, and biochemical properties of new chemical entities employing DSC, TGA, and SEM techniques; (4) development of immediate-release, controlled-release, and delayed-release drug formulations; and (5) use of spectroscopic methods including HPLC, UV, IR, and MS. Must be proficient in the use of pharmacokinetic/pharmacodynamic modeling software such as PCDCON and WIN-NONLIN.

SmithKline Beecham offers a competitive compensation/benefits package. For confidential consideration, please forward résumé and salary requirements to: **Dr. Francis X. Muller, Assistant Director, Pharmaceutical Technologies, SmithKline Beecham Pharmaceuticals, P.O. Box 5089, UP1230, Collegeville, PA 19426-9901.** We are an Equal Opportunity Employer; Minorities/Females/Disabled/Veterans.

The College of Veterinary Medicine at Kansas State University is seeking a Head for the Department of Anatomy and Physiology. Departmental faculty teach courses in anatomy, physiology, and pharmacology in the professional curriculum and conduct research related to immunophysiology, cardiopulmonary physiology, neuroscience, and pharmacology.

Candidates for this position must have a Ph.D., D.V.M., or an equivalent degree and be qualified to be appointed at the rank of **ASSOCIATE** or **FULL PROFESSOR**. Candidates with prior administrative experience, including records of outstanding fiscal accountability and personnel management, are preferred. The Department Head is expected to maintain an active research program.

Salary will be commensurate with experience. Screening of applications will begin on August 1, 2000, and continue until a suitable candidate is identified. Applicants should submit a letter of interest, curriculum vitae, and contact information for at least five professional references to: **Dr. Ronnie Elmore, Chairman of Search Committee, 101 Trotter Hall, College of Veterinary Medicine, Kansas State University, Manhattan, KS 66506.** Telephone: 785-532-5660. For additional information about the college, see website: [www.vet.ksu.edu](http://www.vet.ksu.edu).

Kansas State University is an Affirmative Action/Equal Opportunity Employer. Qualified individuals from underrepresented groups are encouraged to apply.

### POSTDOCTORAL POSITION UNIVERSITY OF PITTSBURGH

A Postdoctoral position is available to study the molecular basis of human melanoma. Specifically, the project will focus upon the analysis of genes, which are differentially expressed in the distinct stages of the progression pathway of this disease. Interested individuals with substantial experience in molecular biology and/or molecular genetics are invited to submit their 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 U.S.A.**

## 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.

[www.training.nih.gov](http://www.training.nih.gov)

NIH is dedicated to building a diverse community in its training and employment programs.

### STAFF TOXICOLOGIST (SPECIALIST) OPEN EXAMINATION

The Department of Pesticide Regulation in the California Environmental Protection Agency seeks Staff Toxicologists. Several openings exist in Sacramento, California. Persons experienced in conducting human pesticide exposure assessments, evaluating toxicological or exposure studies, or preparing risk assessments are encouraged to apply. To qualify, persons must hold a Doctoral degree in toxicology or closely related field (e.g., public health, bio- or environmental chemistry, pharmacology, or physiology) and a minimum of three years of relevant postdoctorate experience, which must include the interpretation of toxicological findings relative to probable human health or environmental hazards and one year of experience developing and designing toxicological research and investigative studies. The current salary range is \$5,480 to \$6,629 per month. A comprehensive benefits package is available, which may include limited payment of relocation expenses. Submit application and résumé to the address below by the final filing date of June 30, 2000. This position requires an oral examination, which may be scheduled in August/September 2000. For a copy of the examination bulletin and state application form, visit the California State Personnel Board's websites: [www.spb.ca.gov/jobsrd.cfm](http://www.spb.ca.gov/jobsrd.cfm) and [www.spb.ca.gov/bulletinsrd.cfm](http://www.spb.ca.gov/bulletinsrd.cfm) or call the Department of Pesticide Regulation Job/Examination line at Telephone: 916-323-0547.

Department of Pesticide Regulation  
Human Resources Branch  
830 K Street, Room L1  
Sacramento, CA 95814-3510  
Attention: Linda Sarabia

### MOLECULAR/CELL BIOLOGIST SIGNAL TRANSDUCTION

The Institute of Human Virology, University of Maryland Biotechnology Institute, University System of Maryland, invites applications for a tenure-track faculty position at the **ASSISTANT/ASSOCIATE PROFESSOR**-level position. Candidates with expertise in molecular and cell biology will carry out studies involving signal transduction in cells of the immune system and other related cells as they relate to chronic viral infections and cancer. Desirable areas of demonstrable expertise include protein-protein interactions, protein-nucleic acid interactions, receptor-ligand interactions, intracellular transport, transcriptional factors, and protein phosphorylation and dephosphorylation. The successful candidate will have a background of published research in all of the areas described above, particularly as it pertains to regulation of gene expression in response to extracellular stimuli, and should have demonstrated the ability to interact and collaborate with other investigators in diverse areas of molecular biology and immunology. Please send curriculum vitae, research interest statement, and names of three references to: **Search Committee, F3-0096, Institute of Human Virology, University of Maryland Biotechnology Institute, University System of Maryland, 725 West Lombard Street, Baltimore, MD 21201.** Filing deadline for this position is June 23, 2000.

The University of Maryland Biotechnology Institute is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans, and candidates with disabilities are encouraged to apply.

## POSITIONS OPEN

### ASSOCIATE TOXICOLOGIST OPEN EXAMINATION

The Department of Pesticide Regulation in the California Environmental Protection Agency seeks Associate Toxicologists. The openings exist in Sacramento, California. Entry-level position in conducting human pesticide exposure assessments, evaluating toxicological or exposure studies, or preparing risk assessments. To qualify, persons must: (1) hold a Doctoral degree in toxicology or a closely related field (e.g., public health, bio- or environmental chemistry, pharmacology, or physiology); or (2) have three years of experience past receipt of a Master's degree in performing and interpreting studies and/or conducting safety evaluations and hold a Master's degree in toxicology, biochemistry, pharmacology, or closely related fields from an accredited college or university; or (3) have certification as a Diplomat of the American Board of Toxicology. The current salary range is \$4,136 to \$5,480 per month. A comprehensive benefits package is available, which may include limited payment of relocation expenses. Submit application and résumé to the address below by the final filing date of June 30, 2000. This position requires an oral examination, which may be in August/September 2000. For a copy of the examination bulletin and state application form, visit the California State Personnel Board's websites: [www.spb.ca.gov/jobsrd.cfm](http://www.spb.ca.gov/jobsrd.cfm) and [www.spb.ca.gov/bulletinsrd.cfm](http://www.spb.ca.gov/bulletinsrd.cfm) or call the Department of Pesticide Regulation Job/Examination line at Telephone: 916-323-0547.

Department of Pesticide Regulation  
Human Resources Branch  
830 K Street, Room L1  
Sacramento, CA 95814-3510  
Attention: Linda Sarabia

### ASSISTANT OR ASSOCIATE PROFESSOR CHILDREN'S HOSPITAL OF PITTSBURGH UNIVERSITY OF PITTSBURGH Pediatric Center for Neuroscience

The Department of Pediatrics and the Pediatric Center for Neuroscience invite applications for a tenure-track faculty position at the Assistant or Associate Professor level. This individual will be expected to have an M.D. and/or Ph.D. degree; to establish a funded research program of relevance to childhood nervous system development or disease; and to interact in research and teaching activities with faculty, fellows, and students at the Children's Hospital of Pittsburgh and the Center for Neuroscience at the University of Pittsburgh. Current areas of research emphasis in the Children's Hospital Rangos Research Center include neural apoptosis, experimental therapeutics for nervous system cancer, developmental modulation of neural gene expression, and neurotrophic signal transduction. Salary is to be commensurate with experience. Send letter of interest, curriculum vitae, and brief statement of research and teaching goals and experience to: **Nina F. Schor, M.D., Ph.D., Director, Pediatric Center for Neuroscience, Children's Hospital of Pittsburgh, 3705 Fifth Avenue, Pittsburgh, PA 15213.** The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer.

**POSTDOCTORAL POSITIONS.** Two Postdoctoral positions are available to study protein folding and design. The projects involve study of the de novo-designed helical hairpin peptide  $\alpha$ . Molecular biologists: cloning, expression, purification, stable isotope labeling, and biophysical characterization of  $\alpha$  and variants. Experience with cloning and expression of proteins is required. Biochemist: chemical synthesis, purification and characterization by CD, fluorescence, and NMR of designed variants of  $\alpha$ . Interested applicants should send a succinct letter of interest, curriculum vitae, one or more representative publications, and the names of three references to: **Dr. John Osterhout, The Rowland Institute for Science, 100 Edwin H. Land Boulevard, Cambridge, MA 02142.** E-mail: [osterhout@rowland.org](mailto:osterhout@rowland.org); website: [www.rowland.org/folding](http://www.rowland.org/folding).



**POSTDOCTORAL RESEARCH POSITIONS**  
**NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES**  
**NATIONAL INSTITUTES OF HEALTH**  
**P.O. BOX 12233, RESEARCH TRIANGLE PARK, NC 27709-2233**

**Activating and Repressing Transcription from Chromatin**  
Trevor Archer, Ph.D. (archer1@niehs.nih.gov)

**Biological Function and Action of Nuclear Receptors**  
Anton Jetten, Ph.D. (jetten@niehs.nih.gov)

**Breast Cancer in Mammary Biology**  
Richard DiAugustine, Ph.D. (diaugus2@niehs.nih.gov)

**Calcium Signaling**  
James Putney, Ph.D. (putney@niehs.nih.gov)

**Cell Adhesion and Signal Transduction in Tumor Cell Metastasis**  
Kenneth Olden, Ph.D./John Roberts, Ph.D. (roberts1@niehs.nih.gov)

**Cell Cycle Checkpoint Signaling Mechanisms and pATM Function**  
Richard Paules, Ph.D. (paules@niehs.nih.gov)

**Comparative Carcinogenesis**  
Roger Wiseman, Ph.D. (wiseman@niehs.nih.gov)

**Cytochrome P450 Arachidonic Acid Metabolism**  
Darryl Zeldin, Ph.D./Joyce Goldstein, Ph.D. (zeldin@niehs.nih.gov)

**Eicosanoids and Pulmonary Immune Function**  
Darryl Zeldin, Ph.D. (zeldin@niehs.nih.gov)

**Genetic Basis for Human Gene Expression Profiles Using Microarray Technology**  
Douglas Bell, Ph.D. (bell1@niehs.nih.gov)

**Investigations of Free Radical Metabolism with Electron Spin Resonance and Immunology**  
Ronald Mason, Ph.D. (mason4@niehs.nih.gov)

**Ion Channel Physiology**  
Jerrel Yakel, Ph.D. (yakel@niehs.nih.gov)

**Mechanisms by Which Cells Produce Mutations**  
Roel Schaaper, Ph.D. (schaaper@niehs.nih.gov)

**Mechanisms of Cell Adhesion and Migration**  
Steven Akiyama, Ph.D. (akiyama@niehs.nih.gov)

**Mechanisms of Chemical-Induced Hepatocarcinogenesis**  
Burhan Ghanayem, Ph.D. (ghanayem@niehs.nih.gov)

**Mechanisms of Gene Regulation**  
Christina Teng, Ph.D. (teng@niehs.nih.gov)

**Mechanisms of Renal Xenobiotic Transport**  
John Pritchard, Ph.D. (pritchard@niehs.nih.gov)

**Mitochondrial DNA Replication**  
William Copeland, Ph.D. (copelan1@niehs.nih.gov)

**Molecular Epidemiological Studies of Gene-Environmental Interaction**  
Douglas Bell, Ph.D. (bell1@niehs.nih.gov)

**Molecular Modeling of HIV-1 Reverse Transcriptase**  
Tom Darden, Ph.D. (darden@niehs.nih.gov)

**Molecular Neurobiology**  
J.S. Hong, Ph.D. (hong3@niehs.nih.gov)

**Pharmacological Studies on Opioid Receptors and Peptides**  
Lawrence Lazarus, Ph.D. (lazarus@niehs.nih.gov)

**Signal Transduction by Inositol Phosphates**  
Stephen Shears, Ph.D. (shears@niehs.nih.gov)

**Stress Induced Signaling Pathways: Preconditioning/Apoptosis**  
Elizabeth Murphy, Ph.D. (murphy1@niehs.nih.gov)

**Study of Environmental Mixtures Using Alternative Species**  
James Burkhart, Ph.D. (burkhart@niehs.nih.gov)

*Must possess Ph.D., M.D. or equivalent with no more than five years of postdoctoral experience. For further details, access <http://www.niehs.nih.gov/vacancy/postdoc.htm>. To apply, submit a cover letter, curriculum vitae and the names of three references to the hiring scientist at the above address.*

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## RESEARCH & DEVELOPMENT

MEMC Electronic Materials Inc., a leading international producer of advanced silicon crystal, has several positions open at its corporate headquarters in St. Peters, Missouri.

The ideal candidates will have a Ph.D. in physical chemistry, chemical engineering, materials science, or physics; with a strong education in one of the following subjects: colloid science, hydrodynamics, or nano-tribology. Candidates should have strong experimental skills backed up with solid understanding of theory. Excellent written and verbal communication skills are required. MEMC prefers candidates with post-doctoral or other extended experience, although others with outstanding ability are encouraged to apply.

MEMC offers competitive salaries and outstanding benefits along with the challenges of a growing company. For confidential consideration, send your resume to: **MEMC Electronic Materials, Inc., Attn: Human Resources - MZ48, P.O. Box 8, St. Peters, MO 63376. Fax: (636) 474-5161, e-mail: [stjjobopportunity@memc.com](mailto:stjjobopportunity@memc.com)**



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# **GORDON RESEARCH CONFERENCES**

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Individual will participate in the discovery of novel secreted human proteins for therapeutic use. Qualified candidate will be an experienced molecular biologist with a Ph.D. in molecular biology, biochemistry or biology. Experience in high throughput screening and assay development is required. 3-5 yrs. of industrial experience is preferred. Specific experience in vector development, cell-based reporter assays, mammalian cell culture, transient transfections, stable cell line development, TaqMan RT-PCR assays, in silico gene analysis, cloning and expression desired. Additional interest in bioinformatics and/or functional genomics would be helpful. Individual must be conversant with latest screening and detection technologies, chip-based screening and possess good writing, presentation, analytical and managerial skills.  
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**HGS**

Resources Department, Human Genome Sciences, Inc., Job Code IS 5/26, 9410 Key West Avenue, Rockville, MD 20850; fax: (301) 309-1845. Our preferred method for receiving resumes is via our Web page or via e-mail. EOE, M/F/D/V.

Visit our Web site to learn more about us:  
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## **University of California – San Francisco, Department of Surgery**

The University of California – San Francisco (UCSF) Department of Surgery - Division of Vascular Surgery and the Cardiovascular Research Institute at UCSF seek a Director for the newly funded Pacific Vascular Research Laboratory. A joint appointment at the Assistant or Associate Professor in Residence level in the Department of Surgery, an appropriate basic science department, and the Cardiovascular Research Institute will be provided, as will membership in UCSF's Biomedical Sciences Graduate Program. The Director of this laboratory will be expected to develop and lead an outstanding basic and/or translational research program in angiogenesis or other aspects of vascular biology relevant to vascular disease. Possible topics include but are not limited to fundamental mechanisms of angiogenesis during embryonic development and in response to ischemia and inflammation as well as the study of relevant genetics and signaling mechanisms. The Director will also stimulate and guide the interaction of basic and clinical scientists, and provide mentoring of students and postdoctoral and clinical fellows. Applicants should possess either a Ph.D. or M.D. Applicants at the Associate level will have already established leading programs in their fields. Send curriculum vitae to:

**Shaun R. Coughlin, M.D., Ph.D.**  
PVRL Search Committee  
c/o Louis M. Messina, M.D., Chief,  
Division of Vascular Surgery  
505 Parnassus Avenue, Box 0222  
San Francisco, CA 94143-0222

Position will be open until July 31, 2000. The University of California, San Francisco is an Equal Opportunity/Affirmative Action Employer. The University undertakes Affirmative Action to assure Equal Employment opportunities for underutilized minorities and women, for persons with disabilities, and for Vietnam-era veterans and special disabled veterans.



# McGill

## FACULTY OF SCIENCE

The Faculty of Science at McGill University is dedicated to the creation of new knowledge and understanding for the benefit of society. Today's fundamental breakthroughs create the future and we are determined to continue our leading role in the advancement of science. Therefore we extend an invitation to outstanding scientists to join our stimulating community of teacher/researchers.

Building on our strengths, we have been hiring new faculty in almost every unit in the Faculty of Science and we expect this to continue into the foreseeable future. Faculty positions at all levels are being created through internal funding, through the Province of Quebec (FCAR) Programme stratégique de professeurs-chercheurs, through the Government of Canada's recently announced Canada Research Chairs program and the Natural Science and Engineering Research Council of Canada's Women's Faculty Award program.

The Faculty addresses major areas of intellectual interest including but not limited to: the Environment, Information Sciences, Life Sciences and Materials Science, in addition to traditional core areas. The Departments in the Faculty are:

- Atmospheric & Oceanic Sciences
- Biology
- Chemistry
- The School of Computer Science
- Earth & Planetary Sciences
- Geography
- Mathematics and Statistics
- The McGill School of Environment
- Physics
- Psychology
- The Redpath Museum

We invite applications from interested candidates with proven records of achievement for these positions. In general, all fields of research in each discipline are welcomed. Detailed information on available positions can be obtained on departmental web pages accessible through [www.mcgill.ca/science](http://www.mcgill.ca/science).

Completed applications must contain a full curriculum vitae, statements of teaching and of research interests and three confidential letters of recommendation sent under separate cover by the candidate's references upon the request of the candidate. Applications should be sent to the Chair of the relevant Department(s) at the address on the web site.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. *McGill University is committed to equity in employment.*

### NATIONAL INSTITUTES OF HEALTH National Institute of Allergy and Infectious Diseases **Post-doctoral Fellow: Infectious Diseases Research in Virology**

Position will be available in the Respiratory Viruses Section of the Laboratory of Infectious Diseases. The research involves human respiratory syncytial virus and focuses on the use of new recombinant virus recovery systems to examine basic questions of molecular virology, viral pathogenesis, host responses and vaccine development. This full-time research position offers a unique opportunity to work on investigations that range from basic molecular biology to applied vaccinology. The project provides excellent training for postdoctoral scientists within five to seven years of receiving their Ph.D. and for M.D.s at all levels of training who plan a career in infectious diseases research. The position involves collaborative research between Drs. Peter Collins and Brian Murphy. Starting salary ranges from \$31,500 to \$45,500 and will be commensurate with experience. Please send curriculum vitae and three letters of reference to:

**Dr. Peter L. Collins**  
LID, NIAID, NIH

Bldg. 7, Room 104  
7 Center Drive, MSC 0720  
Bethesda, MD 20892  
Fax: 301-496-8312

Email: [pcollins@niaid.nih.gov](mailto:pcollins@niaid.nih.gov)

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Roche

### BIOPROCESSING MANUFACTURING OPERATIONS

## SENIOR SCIENTIST/SCIENTIST

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The successful candidates will have a B.S./M.S./Ph.D in Biochemistry, Molecular Biology or equivalent with several years of experience in biotechnology production area. In depth knowledge of all phases and strategies for enzyme purification and characterization is required. Hands-on experience in enzyme formulation and PCR technology is necessary. Working knowledge of cGMPs, QSRs and ISO requirements is essential. Familiarity and experience with SAP production planning is preferred. Process scale-up experience is highly desirable. Previous hands-on experience with radio-isotopes is preferable. Ability to prepare manufacturing documents and coordinate/implement production schedules is necessary. Strong problem-solving and verbal/written communication skills are required. This position will be ultimately relocated to Pleasanton, California in about two years.

We offer a competitive salary and a state-of-the-art environment that is conducive to professional success. For consideration, please forward your resume including salary history to: **Roche Molecular Systems Inc., Human Resources Dept. KB/WD, Branchburg Township, 1080 U.S. Highway 202, Somerville, NJ 08876-3771.**

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Roche

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#### WHO to contact

We offer an excellent compensation and benefit program including 401(k). Qualified candidates should send a resume, including salary requirements to: Roche Diagnostics, Science/6/2000, 6115 Hague Road, Indianapolis, IN 46250, or e-mail to [roche@rpc.webbinc.com](mailto:roche@rpc.webbinc.com). Principals only please. Roche is committed to providing equal opportunity to a diverse workforce.

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#### DIRECTOR, Bioinformatics, MC006

You will be responsible for leading a diverse bioinformatics program centered on microarray technology. You will develop microarray information systems, including databases, data collection, analysis, and visualization tools, as well as manage software product development.

**Qualifications:** Ph.D. in Bioinformatics or related field with 8+ years experience in bioinformatics/computational genomics, including algorithm and software development, and database design and implementation. Excellent analytical and organizational skills, with an exceptional track record of scientific and technical accomplishment. Expertise in microarray data analysis and data management is a strong plus, as is experience in commercial software development.

#### SCIENTIST/PROGRAMMER, Data Analysis, MC011

You will work closely with experimental scientists to design and implement data analysis algorithms and software for highly parallel array experimentation.

**Qualifications:** Ph.D. in Computer Science or computational field with 2+ years experience in development of data analysis software or similar qualifications. Strong programming skills and a solid background in data analysis and statistics are desired, as is a track record of finding innovative solutions to computational problems. Familiarity with SQL and analysis of heterogeneous data sets in molecular biology/microarray experimentation is a plus.

#### SCIENTIST, Analytical Oligonucleotide Chemistry, AC001

You will be responsible for developing quantitative methods to characterize the attachment of oligonucleotides and nucleic acids to silica and plastic beads. You will identify, characterize and minimize sources of variability and error, and develop improvements to methods for conjugating oligonucleotides to surfaces.

**Qualifications:** Ph.D. in Analytical or Synthetic Organic Chemistry or related field. We are seeking an outstanding experimentalist experienced with oligonucleotide immobilization and derivatization, fluorescence assay development, and bioconjugation chemistry. A strong background in quantitative measurement and statistical analysis is desirable.

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#### FACULTY POSITIONS

### Population Genetics - Cancer

Fox Chase Cancer Center ([www.fccc.edu](http://www.fccc.edu)), an NCI-designated Comprehensive Cancer Center, has immediate openings for outstanding investigators to fill tenure-track positions in the following areas:

- Genetic Epidemiology
- Statistical Genetics
- Medical Genetics

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New faculty will receive a generous start-up package including funds for equipment, personnel, and operating expenses, and laboratory space in the new Cancer Prevention Pavilion. Interested candidates should send a C.V., summary of research interests, and 3 letters of reference to:

Dr. Joseph R. Testa  
Director, Human Genetics Program  
Fox Chase Cancer Center  
7701 Burholme Ave.  
Philadelphia, PA 19111  
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## PROFESSOR OF GENETICS

### HARVARD MEDICAL SCHOOL/ MASSACHUSETTS GENERAL HOSPITAL

The Department of Genetics at the Harvard Medical School and the Department of Molecular Biology at the Massachusetts General Hospital are seeking a Professor of Genetics to be located in the Department of Molecular Biology at the Massachusetts General Hospital. This appointment will be that of a full time Professor of Genetics in the area of the genetic analysis of neural signaling. In addition to conducting a research program of distinction in this field, the candidate should have a strong record of accomplishments in training and service.

Individuals should send a letter expressing interest in the position, an outline of their current and future research, and an up-to-date CV to:

**Chief, Department of  
Molecular Biology  
Wellman 1123**

**Massachusetts General Hospital  
Boston, MA 02114**

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[www.sigma-aldrich.com](http://www.sigma-aldrich.com)



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## MOLECULAR & CELLULAR BIOLOGY

### Scientist, Oncology

This position requires an MD or Ph.D. in life science; 3-5 years' experience as a postdoctoral fellow in molecular biology, genetics, and oncology; and a proven successful scientific track record. (Job Code: SCI-01)

## GENOMICS & TARGET DISCOVERY

### Scientist, Immunology

Candidates must possess a Ph.D. in a scientific discipline or equivalent; at least 2 years of relevant research and/or development experience; and expertise with scientific principles & concepts. (Job Code: SCI-02)

## PROTEIN CHEMISTRY

### Molecular Biologist

Postdoctoral experience in molecular/cellular biology & protein design/engineering is required. Some experience with protein characterization would be helpful. (Job Code: SCI-03)

### Scientist, Chemistry

We are looking for a unique Ph.D. level chemist to participate in our Drug Discovery efforts, and help establish the infrastructure of our chemistry team. Candidates must possess diverse experience in organic synthesis. Knowledge of medicinal chemistry preferred. (Job Code: SCI-04)

## PHARMACOLOGY

### Senior Scientist/Director

We are seeking a Ph.D. level Scientist with 6+ years' experience and a strong background in *in vivo* pharmacology & early-stage toxicology. A background in immunology and/or oncology animal models is desirable. (Job Code: SCI-05)

Rigel offers an attractive comp package which includes generous stock options, and a rare opportunity to make significant scientific contributions. Please send your resume to: Rigel, Inc., HR, Attn: (Job Code: \_\_\_\_), 240 East Grand Ave, South San Francisco, CA 94080, or via email (ASCII format only) to: [careers@rigel.com](mailto:careers@rigel.com). EOE

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- **Research Lab Specialist**

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**St. Jude Children's Research Hospital**  
Human Resources Department  
332 North Lauderdale  
Memphis, TN 38105  
E-mail: [virgil.holder@stjude.org](mailto:virgil.holder@stjude.org)  
Fax: 901-495-3123

[www.stjude.org/hr](http://www.stjude.org/hr)

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## GRANT WRITER / SCIENCE WRITER PROTIVERIS, INC.

Protiveris, Inc., a start-up biotechnology company located in Rockville, Maryland, is looking for a grant writer or a science writer to help the company expand its visibility and obtain government funding for its core silicon chip technologies. Protiveris is a rapidly growing company developing new silicon-based technologies for diagnostics and proteomics.

The successful candidate must have a science background, excellent writing skills and knowledge of funding sources within the U.S. Government. The preferred candidate will have a demonstrated track record of obtaining grants and have an excellent science writing background. This position is for one year in the first instance.

Protiveris, Inc., offers a competitive salary, medical and retirement benefits, as well as a stock option plan.

For more information please contact:

John Peeters, Ph.D.  
President  
Protiveris, Inc.  
9700 Great Seneca Highway  
Rockville, MD 20850  
Tel: (301) 738-7800  
Fax: (301) 738-8800  
[jpeeters@protiveris.com](mailto:jpeeters@protiveris.com)

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## Post Doctoral Fellow Research Associate

Children's Memorial Hospital has been contributing to the advancement of pediatric medicine for over 100 years. Join our team of dedicated professionals and put your expertise to work at one of the nation's top ten pediatric institutions. You'll study the molecular mechanisms and regulation of gene expression in neuroblastoma tumor cells and determine their role in acquired drug resistance. We require a recent PhD, MD or Master's degree in Biological Sciences (or the equivalent) and significant experience in cloning, sequencing, vector construction/design, RT-PCR and other techniques related to biological sciences. For consideration, send current vitae, a summary of research experience and three references to:

Dr. Rama Dwivedi, Associate Director of TMF  
Children's Memorial Hospital  
Institute for Education & Research  
2300 Children's Plaza, no. 204  
Chicago, IL 60614-3394  
Fax 773.880.3282

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## Postdoctoral Position Mayo Clinic, Rochester, MN

A postdoctoral position is available for an individual with a very strong background in molecular biology/molecular genetics. The laboratory is interested in apoptotic and/or signaling pathways in ovarian cancer. We have already transcriptionally profiled many primary ovarian tumors and constructed subtraction suppression hybridization cDNA libraries and have identified many candidate genes that we'd like to further analyze. We are seeking an individual with a Ph.D. with experience in molecular biology, tissue culture and cell signaling. Highly competitive salary and full benefits are available to motivated candidates. Mayo Foundation is a non-profit physician led clinical practice integrated with education and research in a unified multi-campus system.

Interested candidates should send their curriculum vitae, bibliography, and the names of three individuals who will write strong letters of support to:

David I. Smith, Ph.D.  
Mayo Clinic Cancer Center  
Professor, Director of the Cancer Genetics Program  
Experimental Pathology  
200 First St. SW  
Rochester, MN, 55905

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### Clinical Research Coordinator

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The successful candidate will design protocols for efficacy and field safety studies for ProdiGene's animal and human proprietary Edible Vaccine projects; identify collaborators for executing studies at lab and field sites, contract research organizations and university departments; work with collaborators to ensure successful initiation/completion of lab and field studies and the coordination of these studies in compliance with corporate and regulatory requirements. The successful candidate will be responsible for maintenance and record keeping of study data and development of study reports. This position requires a minimum of a DVM or Ph.D. or equivalent and 3-5 years of a proven track record in scientific research with specialization in clinical research. Experience in immunology and/or nutrition is desired. All candidates should be highly motivated, possess excellent communication skills, and desire to work in a high performance environment with multidisciplinary teams. All candidates will need to have excellent skills in project management and in interactions with people. ProdiGene offers competitive salaries and a dynamic work environment. For consideration, please submit a resume and the names of three professional references to: **Human Resources Department, June Elliott-Hardy, ProdiGene, 101 Gateway Boulevard, Suite 100, College Station, TX 77845, Fax: 409/690-9527.**

### PRIZES

#### MARCH OF DIMES PRIZE IN DEVELOPMENTAL BIOLOGY

Nominations of candidates are solicited for the sixth annual prize to be awarded in 2001. Please make your recommendations on or before September 15, 2000.

The prize, consisting of a medal and \$100,000, is awarded to investigators whose research has profoundly advanced the science that underlies our understanding of birth defects.

Nomination forms available upon request from:

**Michael Katz, M.D., Vice President for Research**  
**March of Dimes Birth Defects Foundation**  
1275 Mamaroneck Avenue  
White Plains, NY 10605  
Telephone: (914) 997-4555  
Facsimile: (914) 997-4560  
e-mail: mkatz@modimes.org

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Job Code: SCF-147
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Biology**  
Job Code: SCRF-190
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## SCIENCES

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## POSITIONS OPEN

### POSTDOCTORAL POSITION to Investigate Function and Dysfunction of the Human Oncoprotein MDM2

Applications are invited from recent graduates for a Postdoctoral position in a laboratory involved in understanding molecular biology of tumorigenesis and role of the human oncoprotein MDM2 in the etiology of cancer (see *EMBO J.* 17:2513, 1998). This position is to investigate the biochemical mechanism of human MDM2-mediated growth regulation in normal cells. Individuals with expertise in cDNA technology, DNA sequencing, mammalian cell culture systems, or expression analysis in transgenic mice are especially encouraged to apply. Salary is negotiable. Send complete curriculum vitae and arrange for three letters of reference to be sent directly to: **Swati Palit Deb, Ph.D., Associate Professor, Massey Cancer Center and Department of Biochemistry and Molecular Biophysics, Box 980614, Medical College of Virginia, Virginia Commonwealth University, Richmond, VA 23298. FAX: 804-828-1473; e-mail: spdeb@hsc.vcu.edu.**

### POSTDOCTORAL FELLOWSHIP REGULATION OF CYTOSKELETON

A Postdoctoral Fellowship is available to study regulation of early steps in microtubule morphogenesis. The work focuses on regulation of tubulin gene expression and of posttranslational interactions of microtubule proteins. The trainee will use classical and molecular genetics in yeast and animal cells as well as cell biological and biochemical analyses. The position provides an opportunity for the trainee to join a small, energetic laboratory; to interact with a rich and broad scientific community; and to develop independent projects. Please send curriculum vitae and the names of three references to:

**Dr. Frank Solomon**  
Department of Biology  
Center for Cancer Research  
Building E-17, Room 220, MIT  
Cambridge, MA 02139

**POSTDOCTORAL POSITION** available immediately in the Department of Microbiology at Boston University School of Medicine to study signal transduction between glutamine synthetase and the nitrogen-regulatory protein TnrA of *Bacillus subtilis* (see *Mol. Microbiol.* 32:223, 1999). Experience in molecular biology, enzymology, protein chemistry, or X-ray crystallography desired. Ph.D. required. Send résumé and address of three references to: **Dr. Susan H. Fisher, Department of Microbiology, Boston University School of Medicine, 715 Albany Street, Boston, MA 02118. E-mail: shfisher@bu.edu.**

**POSTDOCTORAL POSITION** available starting July 1, 2000, for NIH-funded project. The studies involve use of mouse models for hypertension and utilize a combination of transgenic and knockout animals, whole animal physiology, and gene expression profiling using microarrays. The University of Cincinnati provides an outstanding environment for such integrated studies, and the candidate would be provided with the infrastructure through well-equipped core facilities. A background in physiology or molecular genetics or genomics is sought. For further information, contact: **Dr. Anil Menon; Telephone: 513-558-5534; e-mail: Anil.Menon@uc.edu.**

### POSTDOCTORAL POSITION MUTATION IN ANTIBODY GENES

A position is available to study somatic hypermutation in immunoglobulin variable genes. Research will focus on identifying the genes and DNA polymerases involved in the mutation mechanism, using knockout mice and DNA microarray systems. Our laboratory has an active research environment in DNA repair and immunology with in-house services for the project. Please send curriculum vitae and names of three references to: **Dr. Patricia Gearhart, Laboratory of Molecular Genetics, National Institute on Aging, National Institutes of Health, 5600 Nathan Shock Drive, Baltimore, MD 21224. E-mail: gearhartp@grc.nia.nih.gov. NIH is an Equal Opportunity Employer.**

## POSITIONS OPEN



OncoImmunin, Inc., is a six-year-old biotechnology company in Maryland's I-270 Technology Corridor. The company has developed and patented a cell permeable fluorogenic enzyme substrate technology, which it is currently marketing to the apoptosis research community for the detection and measurement of caspase activities inside living cells (see **website: www.PhiPhiLux.com**). This patented technology allows one to measure multiple caspase activities simultaneously inside living cells at the single cell level. The company is now directing its efforts toward the detection of viral proteases and proteases believed to be involved in cancer metastasis as well as cell-based drug discovery efforts using its proprietary intracellular probes.

Positions available: **CHEMIST:** synthetic organic or peptide Chemist with experience in HPLC purification. Familiarity with some of the following would be useful: enzyme kinetics, molecular modeling, and fluorescence spectroscopy. **BIOLOGIST/BIO-CHEMIST/BIOPHYSICIST:** knowledge and experience with cell culture, microscopy, and flow cytometry essential. Animal handling and molecular biology technical know-how preferable. **COMPUTER PROGRAMMER:** familiarity with scientific programming (PC Macintosh, Linux-based) and relational databases as well as experience with image analysis algorithms desirable.

For consideration, please submit a statement of research/professional experience, curriculum vitae, and list of three references including telephone numbers to:

**Human Resources Committee**  
OncoImmunin, Inc.  
207A Perry Parkway, Suite 6  
Gaithersburg, MD 20877  
E-mail: **OncoImmunin@PhiPhiLux.com**

Confidentiality will be respected if requested. *OncoImmunin, Inc., is an Equal Opportunity Employer.*

### ASSISTANT DIRECTOR Center for Biodiversity and Conservation

The Center for Biodiversity Conservation (CBC) at the American Museum of Natural History seeks an Assistant Director to work closely with the CBC Director and Program Managers to oversee and coordinate interdisciplinary initiatives in research, capacity building, and outreach.

The successful candidate will assume responsibility for day-to-day operations of the CBC, work with Program Managers to ensure quality of scientific content and translation accuracy for CBC publications, supervise and organize annual Spring Symposium series, and participate in proposal development and fund-raising activities.

Candidates must have a Ph.D. in evolutionary biology, ecology, conservation biology, or related field; substantial knowledge of systematics and collections-based research; minimum five years of managerial and program development experience; and excellent organizational and time management skills. Spanish proficiency and a minimum of two years of field experience are preferred. Applications, including curriculum vitae, salary requirements, and three references, should be sent by June 23, 2000, to: **Director, Center for Biodiversity and Conservation, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024. Website: <http://research.amnh.org/biodiversity/index.html>. Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** immediately available in the area of preformulation and formulation of new drug candidates. Ph.D. in pharmaceutical chemistry, analytical chemistry, or related field required. Send curriculum vitae, transcripts, and names of three references to: **Dr. Bradley D. Anderson, Division of Pharmaceutical Sciences, College of Pharmacy, University of Kentucky, Lexington, KY 40536-0082.**

## POSITIONS OPEN

### POSTDOCTORAL TRAINING PROGRAM CANCER BIOLOGY

The Massey Cancer Center located on the Medical College of Virginia campus of Virginia Commonwealth University announces the recruitment of **POSTDOCTORAL FELLOWS** to a newly funded training program in cancer biology. This program includes classroom training, an integrated series of seminars and journal clubs, and more than 25 laboratories performing innovative research in the fields of developmental therapeutics, cancer cell biology and genetics, radiation biology and oncology, and immune mechanisms. Potential candidates may consider (among others) laboratories that focus on the role of oncogenes and tumor suppressor genes in the regulation of oncogenesis and the response to radiation and chemotherapy, DNA strand break repair, signal transduction pathways, cell-cycle regulation and the promotion of apoptosis, DNA methylation, gene regulation and differentiation, gene therapy and radiosensitization, telomerases and cell immortalization, and immune cell biology and immunotherapy. Recent additions to this program have been transgenic mouse and laser capture microdissection facilities. A full description of research opportunities will be sent to eligible candidates. For more information, see **website: [http://www.vcu.edu/mcc/CB\\_T32.htm](http://www.vcu.edu/mcc/CB_T32.htm)**. Support through this granting mechanism is limited to U.S. citizens and permanent residents. Prospective candidates should send a letter indicating research interests and long-term career goals, curriculum vitae, and three letters of recommendation to: **Dr. Gordon Ginder, Director, Massey Cancer Center, P.O. Box 980037, Richmond, VA 23298-0037.**

### POSTDOCTORAL POSITION HARVARD MEDICAL SCHOOL

Position available to study DNA repair and cancer susceptibility genes. See *Nature Genetics* 17:487-490, 1997; *MCB* 19:4866-4873, 1999; *PNAS* 95:13085-13090, 1998. Experience in molecular and cell biology is required. Send curriculum vitae and names of three references to: **Dr. Alan D'Andrea, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. E-mail: [alan\\_dandrea@dfci.harvard.edu](mailto:alan_dandrea@dfci.harvard.edu).**

**POSTDOCTORAL POSITION** available immediately to study transcriptional regulation of the gonadotropin genes. Project to focus on the role of PACAP and the cAMP signaling system in modulating luteinizing hormone  $\beta$  (LH $\beta$ ) gene expression. Experience in cell culture and molecular biology techniques highly desirable. Send curriculum vitae and names of references to: **Dr. Lisa M. Halvorson, Department of Obstetrics/Gynecology, Box 36, New England Medical Center, 750 Washington Street, Boston, MA 02111. E-mail: [LHalvorson@lifespan.org](mailto:LHalvorson@lifespan.org).**

Two **POSTDOCTORAL POSITIONS** are available to investigate leukocyte selectin and  $\beta 2$  integrin function as modulated by chemokines and fluid shear force. Related projects include platelet-leukocyte interactions and receptor-targeted drug delivery. Candidates should possess a Ph.D. in biophysics, cell biology, or engineering. Positions are funded through the NIH and AHA. Please contact: **Michael B. Lawrence, Ph.D., Associate Professor, Biomedical Engineering, HSC Box 377, University of Virginia, Charlottesville, VA 22908. E-mail: [mbl2a@virginia.edu](mailto:mbl2a@virginia.edu).**

**POSTDOCTORAL POSITION** in neuroscience/biophysics available immediately to study cellular calcium homeostasis, calcium transport, and neurosecretion in adrenal chromaffin cells. Experience desirable in fluorescence  $Ca^{2+}$  imaging, computational modeling, and cellular secretion. Send curriculum vitae and references to: **Dr. Allan Schneider, Center for Neuroparmacology and Neuroscience MC136, Albany Medical College, Albany, NY 12208. Telephone: 518-262-5837; e-mail: [schneia@mail.amc.edu](mailto:schneia@mail.amc.edu).**



The Neuro-Oncology Branch of the National Cancer Institute and National Institute of Neurologic Disorders and Stroke of the National Institutes of Health are currently recruiting several postdoctoral level scientists to work in the area of experimental protein therapeutics, vector targeting, and glial tumor cell biology. The successful candidates should have an M.D. or Ph.D. and have received training in molecular/cellular biology and/or protein chemistry. Laboratory projects include the study of primary glial neoplasms and neural stem cells for the purpose of identifying novel anti-tumor targets, development of high throughput screens, peptide antagonists, and genetic vectors. Experience with either viral or non-viral vectors, creation and screening of cDNA or peptide libraries, phage display, expression array technology, or stem cell biology would be desirable.

Please send curriculum vitae, statement of research interests and two letters of reference to:

**Karen Berlane**  
Neuro-Oncology Branch  
National Cancer Institute  
10 Center Drive, MSC1911  
Building 10, Room 12S245  
Bethesda, MD 20892-1911

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## EUROPEAN OPPORTUNITIES

### Friedrich Schiller University of Jena

The University of Jena intends to launch the Jena Center for Bioinformatics which is expected to interact closely, in both research and teaching, with the faculties of mathematics and informatics, biology, and medicine, as well as with the Institute of Molecular Biotechnology (IMB), the Hans Knöll Institute for Natural Product Research (HKI), and the Max Planck Institute for Chemical Ecology. To establish the center,



#### 2 Full (C4) Professorships in Bioinformatics

will become available immediately.

One of the professors should have his/her teaching and research expertise in the information aspects of bioinformatics. A focus on visualization, graphics, and graphical data processing would be particularly welcome. The other professor should be oriented towards molecular biology. Close collaboration with the genome and proteome researchers as well as the structural biologists in Jena is expected.

The new professors are expected to engage themselves in innovative and interdisciplinary research and to play an essential role in the implementation of the teaching program in bioinformatics.

Being one of the winners of the German BioRegio competition, Jena offers a multitude of opportunities for interdisciplinary collaboration in biology. The genome research center is one of the most productive in Europe, and the Centre for Design and Structure in Biology is funded by the European Commission as a competence center in structural biology. A number of new biotech and software start-up companies have been set up in close connection to the research institutes.

Suitable candidates are expected to have a record of excellence in research. Teaching experience in bioinformatics would be an advantage. Achievements in research and teaching should be equivalent to what is required for obtaining the *Habilitation* in Germany. Candidates are expected to be successful in obtaining research grants.

The Friedrich Schiller University aims to increase the number of female professors. Qualified women are therefore encouraged to apply. Handicapped applicants will be preferred in cases of equal qualification.

Applications including CV, summary of teaching experience, list of publications and an outline of present and future research interests should be sent within **three weeks** to the

**Prorektor für Mathematik und Naturwissenschaften**  
Friedrich-Schiller-Universität Jena

Fürstengraben 1, D-07743 Jena, Germany  
e-mail: prmn@uni-jena.de

## WORKSHOPS

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For further information on these, and other employment opportunities at AgResearch, or if you wish to apply, visit our WEBSITE  
[www.nzjobs.co.nz/agresearch](http://www.nzjobs.co.nz/agresearch)

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS X-RAY CRYSTALLOGRAPHY

Two funded Postdoctoral positions are available immediately in the laboratory of **Dr. P. John Hart** to examine structure/function relationships of medically relevant protein molecules using X-ray crystallography and other biophysical techniques. Both positions require previous experience in macromolecular crystallography or extensive experience in protein structure/function analysis and heterologous protein expression. Current projects include antioxidant proteins and their derivatives, copper chaperone proteins, blue copper electron transfer proteins, and platelet-activating factor (PAF) metabolizing enzymes. Salaries will range from \$25,000 to \$35,000 per year commensurate with qualifications.

The laboratory is part of the X-ray crystallographic core facility in the Center for Biomolecular Structure Analysis located in the new Allied Health Research Building. State-of-the-art crystallographic (R-Axis IV area detector, Osmic confocal optics, RU-300 generator, X-STREAM) and computational (DEC Alphas/SGIs) facilities are in place and are fully functional. Ample shared facilities (high-field NMR, protein core, DNA sequencing, mass spectrometry, analytical ultracentrifugation, etc.) are also available in the Department of Biochemistry.

Applicants should hold a Ph.D. in biochemistry, chemistry, molecular biology, or a related field. Interested persons are asked to send their curriculum vitae along with the names and addresses for three letters of reference to: **Dr. P. John Hart, Center for Biomolecular Structure Analysis, Department of Biochemistry, The University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78229-3900. E-mail: pjhart@biochem.uthscsa.edu. Website: www.biochem.uthscsa.edu. The University of Texas Health Science Center at San Antonio is an Equal Employment Opportunity/Affirmative Action Employer.**

### SENIOR ENVIRONMENTAL SCIENTIST SOUTH FLORIDA WATER MANAGEMENT DISTRICT West Palm Beach, Florida

South Florida Water Management District, the agency responsible for Everglades restoration, seeks a **SYSTEMS SCIENTIST** with advanced computing skills in ecological modeling to analyze wetland responses to water management. Primary interests should include advanced analysis of spatial dynamics; geostatistics; software development; and the integration of environmental models with databases, GIS, and the WWW. Field work opportunities exist. Master's (Ph.D. preferred) in a science or engineering field with four or more years of experience. More information on projects may be found at **website: www.sfwmd.gov/org/erdc/esr/elm.html**. Submit a letter of research interests, curriculum vitae, and names and contact information for three references. Apply referencing number 000318. Mail to: **3301 Gun Club Road, West Palm Beach, FL 33406. FAX: 561-682-5100. E-mail: hrnews@sfwmd.gov**; visit our **website: www.sfwmd.gov**. *Equal Opportunity Employer.*

### POSTDOCTORAL HUXLEY FELLOWSHIP BEHAVIORAL ECOLOGY/ EVOLUTIONARY BIOLOGY

The Department of Ecology and Evolutionary Biology at Rice University invites applications for a Huxley Research Fellowship/Instructorship. This is a two-year appointment for a recent Ph.D. for research (75%) and teaching (25%). Preference may be given to candidates who can work collaboratively with other evolutionary biologists in the Department. Please send curriculum vitae, research and teaching statements, and three reference letters to: **Dr. Joan Strassmann, Department of Ecology and Evolutionary Biology, MS 170, Rice University, P. O. Box 1892, Houston, TX 77251-1892** by 15 June 2000. Position will remain open until it is filled. *Rice University is an Equal Opportunity/Affirmative Action Employer.*

## POSITIONS OPEN

### PROGRAM DIRECTOR FOR NUCLEAR PHYSICS Division of Physics National Science Foundation Arlington, Virginia 22230

NSF's Division of Physics seeks qualified candidates for the position of Program Director for Nuclear Physics within the Division of Physics. The incumbent will provide management and direction to the proposal-driven experimental Nuclear Physics Program, which includes support for accelerator- and nonaccelerator-based research in nuclear physics. The program supports a large number of individual investigators and user groups at universities, two large university-based accelerator user facilities (the Michigan State University National Superconducting Cyclotron Laboratory and the Indiana University Cyclotron Facility), and several smaller accelerator facilities. The program also has strong efforts aimed at the integration of research and education.

Appointment to this position will be on a one-to-two-year Visiting Scientist, temporary, or Intergovernmental Personnel Act (IPA) basis. The salary range for Visiting Scientist or temporary positions is \$71,954 to \$112,141. A selectee assigned under the IPA provisions retains current salary and applicable benefits through the home institution. IPA applicants must be career employees of eligible organizations for at least 90 days prior to entering an assignment. *Certain citizen requirements may have to be met.* Applicants must have a Ph.D. or equivalent professional experience in nuclear physics, six or more years of successful research experience in nuclear physics (including project management and/or research administration or management), and strong evidence of scholarship in nuclear physics.

Applicants should contact: **Ms. Sybil Smith, Telephone: 703-306-1185, extension 3090 (hearing-impaired individuals may call TDD 703-306-0189)** to request application procedures. Attention: EX00-61.

Formal consideration of applications will commence immediately and will continue until June 15, 2000, or until successful candidates have been identified. *We are particularly interested in attracting qualified women and underrepresented minority candidates to these positions.*

### INTERNAL MEDICINE-PULMONARY UNIVERSITY OF NEBRASKA MEDICAL CENTER

The Department of Internal Medicine-Pulmonary at the University of Nebraska Medical Center seeks to fill the position of **RESEARCHER**. Qualified candidate will perform a variety of procedures in a research setting, carry out research projects, document results, assist with the development of new procedures where applicable, and prepare manuscripts describing the results. The researcher will, in addition, be responsible for presenting results at national and international meetings and may be asked to prepare materials for grant submissions. Working knowledge of ELISA, DNA/RNA isolation, and mRNA. Qualifications: requires either a Bachelor's degree in biological sciences and three to four years of research experience or Master's and two years of Ph.D. Please send résumé to: **Alice Weyant, Staffing Consultant, 985470 Nebraska Medical Center, Omaha, NE 68198-5470. FAX: 402-559-2204. Visit our website: Staffing@unmcnotes.unmc.edu. Affirmative Action/Equal Opportunity Employer.**

### BIOCHEMISTRY LABORATORY DIRECTOR

Genzyme Genetics seeks applicants for its Santa Fe, New Mexico, facility. Candidates must have either a Ph.D. or M.D. in biochemical genetics and ABMG Board certification. Significant experience in managing a biochemistry laboratory is preferred. Interested applicants should submit a letter of interest, curriculum vitae, and list of references to: **Office of Human Resources, Genzyme Genetics, 2000 Vivigen Way, Santa Fe, NM 87505. FAX: 505-438-2277. Genzyme Genetics is an Equal Opportunity Employer that is proud of the diversity of its workforce.**

## POSITIONS OPEN

### BIOSAFETY OFFICER (MICROBIOLOGIST/VIROLOGIST)

The Scripps Research Institute (TSRI) is actively recruiting a Biosafety Officer. This individual will be responsible for the implementation and management of the Institute's comprehensive biosafety program. Responsibilities include serving as a technical resource to the scientific community, reviewing research protocols, developing manuals, and developing and implementing appropriate educational seminars. This newly created position may be filled at the **MANAGER** or **ASSOCIATE DIRECTOR** level. Candidates must have extensive experience in microbiology and/or virology and an appropriate graduate degree (Ph.D. is preferred but not required). The ideal candidate will be a certified biological safety professional and will have spent several years working in the academic environment. Very competitive salary and benefits! Please reference *Science* in cover letter and send to: **TSRI, 10550 North Torrey Pines Road, TPC-11, La Jolla, CA 92037. E-mail: resumes@scripps.edu; FAX: 858-784-8071; website: www.scripps.edu**. If you are interested in discussing this position prior to submitting your résumé, please feel free to contact: **Stuart Rosenberg, Director, Environmental Health and Safety at Telephone: 858-784-8240; e-mail: stuart@scripps.edu. Affirmative Action/Equal Opportunity Employer.**

### ASSOCIATE RESEARCH SCIENTIST DEPARTMENT OF NEUROLOGICAL SURGERY COLUMBIA UNIVERSITY

Seeking applicants for a nontenure-track faculty position in epilepsy slice physiology. The successful applicant will have a Ph.D. and postdoctoral training in hippocampal or neocortical slice physiology and should be experienced with slice physiology experimentation on animal models of epilepsy. Experience with human slice physiology is preferred. The applicant will interact with multidisciplinary investigators in a collaborative research environment. The ability of the applicant to obtain external funding is anticipated. Send résumé to:

**Susan E. McMahon  
Department of Neurological Surgery  
Columbia University  
710 West 168th Street, Room 431  
New York, NY 10032  
E-mail: sem1@columbia.edu**

*Columbia University takes Affirmative Action to ensure Equal Employment Opportunity.*

### POSTDOCTORAL OPENING MOLECULAR BIOLOGIST

This opportunity (two to three years) involves projects on functional genomics and the development of high-throughput methodologies (DNA microarray) for genotyping in molecular epidemiologic studies. The candidate should be familiar with genetic polymorphisms involved in carcinogen metabolism, DNA repair, or in genes controlling cell growth and should possess a working knowledge of conventional genotyping methods. Starting salary is GS-11; equivalent is \$41,834. Interested applicants should submit résumés and three letters of recommendation to: **Dr. Fred F. Kadlubar, Director, Division of Molecular Epidemiology, National Center for Toxicological Research, Jefferson, AR 72079. National Center for Toxicological Research is an Equal Opportunity/Affirmative Action Employer.**

Salomon Smith Barney is seeking an **EQUITY RESEARCH ASSOCIATE** for genomics sector. A Ph.D. in biological sciences (preferably genomics-related) is required. The ideal candidate will be a team player with strong interpersonal, organizational and written skills, and computer proficient. Competitive compensation package (base salary plus bonus). E-mail résumé to: **Deborah.Bertan@ssmb.com. An Equal Opportunity Employer; Minorities/Females/Disabled/Veterans.**

AstraZeneca expanding in  
Research and Development:

# WANTED!

# 200 CHEMISTS

*AstraZeneca is one of the world's leading pharmaceutical companies, dedicated to improving health and quality of life. The Group employs some 50,000 people around the globe.*

*With 10,000 people in Research and Development, AstraZeneca has a world-class line-up of important medicines for the treatment of gastrointestinal, cardiovascular and respiratory diseases, cancer, pain and diseases of the central nervous system.*

*AstraZeneca's research and development revolves around centres of excellence in Sweden, the United Kingdom and the USA, with state of the art facilities. R&D is focused on areas of important medical need.*

*Large efforts are being committed both in-house and via collaborations to establish leading positions in key enabling technologies which will give us a competitive advantage.*

**WE STAND ON THE THRESHOLD** of a technological revolution in our science base, driven by the potential of informatics in combination with chemistry, engineering and biology. Several functions within our R&D organisation are now expanding and upgrading their competence and capacity within different areas of chemistry, from organic and analytical chemistry to medicinal, structural, combinatorial and process chemistry. During this year, we will be seeking chemists with backgrounds in natural sciences and engineering, from B.Sc/M.Sc to Ph.D levels. Locations will be in Sweden, the United Kingdom and USA.

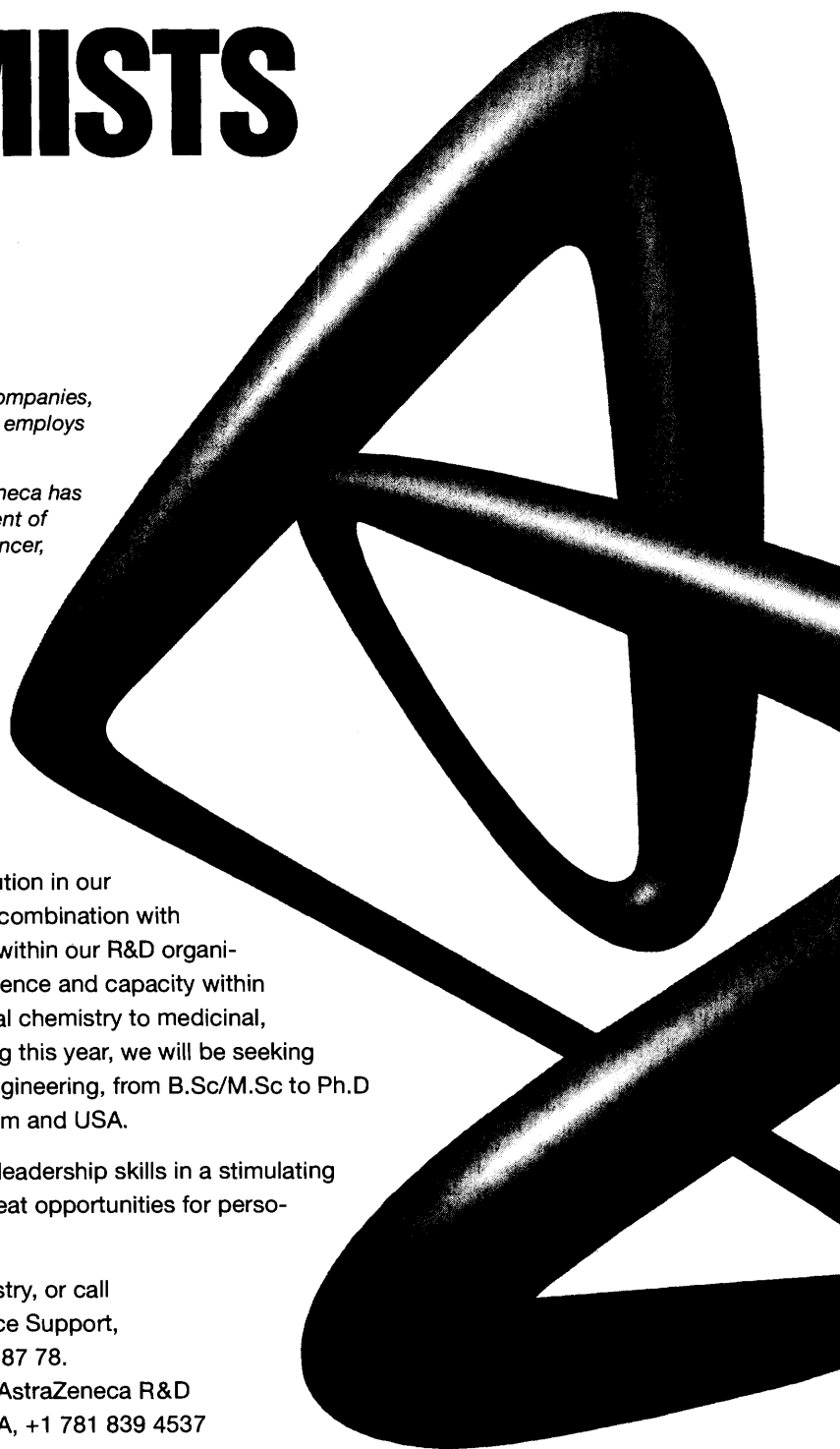
We encourage and promote creativity, innovation and leadership skills in a stimulating and dynamic interdisciplinary environment, offering great opportunities for personal and career development.

Interested? Visit our website, [astrazeneca.com/chemistry](http://astrazeneca.com/chemistry), or call Dr Dan-Anders Lidholm, Director Strategic Competence Support, Human Resources, AstraZeneca Sweden, +46 8 553 287 78.

In Boston, call Dr. Mark Wuonola, Chemistry Director, AstraZeneca R&D Boston, 35 Gatehouse Drive, Waltham, Ma 02451, USA, +1 781 839 4537



[www.astrazeneca.com/chemistry](http://www.astrazeneca.com/chemistry)



## POSITIONS OPEN

### RESEARCH SCIENTIST/INJECTIONIST TRANSGENIC MOUSE CORE FACILITY Purdue University Cancer Center

The NCI-designated Cancer Center at Purdue University has an immediate opening for a qualified individual to assume operational responsibility for the Cancer Center's newly expanded and fully operational transgenic mouse core facility (TMCF). The TMCF offers both knockout and conventional transgenic services to the Purdue University community. Responsibilities and duties for this position include the generation of transgenic mice by pronuclear injection, gene targeting in ES cells, and the derivation of chimeric mice plus supervision of all support staff. The qualified candidate will have an M.S. or Ph.D. degree (Ph.D. preferred) and experience in both ES cell culture and transgenic mouse procedures plus excellent communication and interpersonal skills. Qualified applicants should send their curriculum vitae and the names of at least three references to: **TMCF Position, Purdue University Cancer Center, Hansen Life Sciences Research Building, West Lafayette, IN 47907-1524.** See website: <http://www.pharmacy.purdue.edu/~ccenter/> for more information. *Purdue University is an Equal Opportunity/Affirmative Action Employer.*

### SENIOR BIOINFORMATICS SPECIALIST CB-BSP

We are seeking a highly motivated, committed, and independent-thinking individual to join the core bioinformatics development team. The successful candidate will have a Ph.D. with strong background in research in computational science, preferably with exposure to evolutionary biology. Practical computer programming experience with Java and C in a UNIX environment is essential. Responsibilities will include research and development of new methodologies for functional genomics (computational approaches beyond data mining). Comprehensive benefit package and stock options provided. Great opportunity for career development. Interested people: e-mail résumé to: [hr@eragen.com](mailto:hr@eragen.com) or contact:

Human Resources  
EraGen Biosciences Inc.  
12085 Research Drive  
Alachua, FL 32615  
FAX: 904-418-1680

**CONSERVATION GENETICIST:** Henry Doorly Zoo's Center for Conservation and Research (CCR) is currently seeking qualified applicants for a Conservation Geneticist position. The Biologist will assist with the direction/management of ongoing studies and will develop independent projects in accordance with the Genetics Department's goals of conservation and research. The applicant should have a Ph.D. in genetics or in a related biology program. Experience with sample collection and field work is preferred. The CCR is a fully equipped molecular laboratory with three ABI automated sequencers and all necessary support equipment. The CCR's Genetic Department is presently staffed by four full-time technicians. Additional information can be obtained by contacting: **Dr. Ed Louis** at e-mail: [edlo@omahazoo.com](mailto:edlo@omahazoo.com). Résumés will be accepted through July 1, 2000. Please send curriculum vitae, introductory letter, and three recommendations to: **Henry Doorly Zoo, Center for Conservation and Research, Genetics Department, 3701 South 10th Street, Omaha, NE 68107-2200.** *An Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS** are available to study cell cycle regulation of the malaria parasite. The NIH-funded project will focus on the characterization of CDK-like kinases and the components of the prereplication complex. Ph.D. with a strong background in molecular/cell biology and interest in molecular parasitology are required. Please send curriculum vitae and names of three references to: **Debopam Chakrabarti, Ph.D., Molecular Biology and Microbiology, University of Central Florida, 12722 Research Parkway, Orlando, FL 32826.** FAX: 407-384-2062; e-mail: [dchak@pegasus.cc.ucf.edu](mailto:dchak@pegasus.cc.ucf.edu). *Affirmative Action/Equal Opportunity Employer.*

## POSITIONS OPEN

### ARCHER DANIELS MIDLAND COMPANY

Archer Daniels Midland, a world leader in agricultural processing, has an immediate opening for a skilled **SCIENTIST** to head the Molecular Biology Research Group. ADM operates a modern well-equipped research facility near its corporate headquarters in Decatur, Illinois.

This position will be responsible for directing the research of the Molecular Biology group of ADM research in the production of novel strains of microorganisms for use in ADM fermentations. The position plays a key role in developing the strategies used to engineer the metabolism of relevant microorganisms as well as helping to define the process used in the engineering. This position shares the responsibilities of directing and evaluating contract research performed in the United States and overseas.

The ideal candidate will possess a Ph.D. in biochemistry, molecular biology, or microbiology with six to 10 years of relevant experience. A strong background in microbial metabolism, metabolic pathways analysis, and molecular biology is required. Candidates experienced with both prokaryotic and eukaryotic microorganisms are preferred. This position will work closely with the Bioinformatics, Strain Development, and Fermentation groups. Strong communication skills and the ability to work in an interactive environment are required.

ADM also has an opening for a **BIOCHEMIST** at its Decatur, Illinois, research facility. The position requires a degree in chemistry, biochemistry, or biology or equivalent experience. This person will work under a staff scientist developing and performing assays for enzymes and other biomolecules. The individual will also assist staff members by providing routine assays on submitted samples. Training in the handling of biomolecules and the ability to use common laboratory equipment will be helpful. Computer literacy is desirable.

Both positions offer a complete benefits package including pension, ESOP, health, dental, and life insurance. Qualified candidates for either position should forward résumés and salary requirements to:

Michael Marty  
Archer Daniels Midland  
P.O. Box 1470  
Decatur, IL 62526

*Archer Daniels Midland is an Equal Opportunity Employer.*

The Department of Biochemistry and Biophysics at the University of Pennsylvania is searching for a **RESEARCH ASSISTANT PROFESSOR** (nontenure-track) in the area of the molecular functions of the SMN protein, the product of the spinal muscular atrophy (SMA) disease gene. The appointee will be expected to participate in an intensive team effort of research on the molecular and genetic basis of SMA and on the SMN associated proteins. Candidates should forward curriculum vitae and summary of research interests and should arrange for three letters of recommendation to be sent to: **Ms. Ruth Keris, Staff Assistant, Department of Biochemistry and Biophysics, University of Pennsylvania School of Medicine, Philadelphia, PA 19104-6059.** FAX: 215-573-2085; e-mail: [keris@mail.med.upenn.edu](mailto:keris@mail.med.upenn.edu). The deadline for applications is July 31, 2000. *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

**RESEARCH ASSOCIATE/POSTDOCTORAL FELLOW** position available to study cellular and molecular basis of smooth muscle and enteric neural dysfunction in gut inflammation. Experience in signal transduction, molecular genetics, cell culture, molecular biology, immunohistochemistry, and biochemical measurements is desirable. Send curriculum vitae and names of two references to: **Sushil K. Sarna, Ph.D., Department of Surgery, Medical College of Wisconsin, 9200 West Wisconsin Avenue, Milwaukee, WI 53226.** FAX: 414-454-0152; e-mail: [ssarna@mcw.edu](mailto:ssarna@mcw.edu).

## POSITIONS OPEN

### RESEARCH PLANT PHYSIOLOGIST GS-435-13/14, NC-Demo-00-15 North Central Research Station Forestry Sciences Laboratory Rhinelander, Wisconsin

The U.S. Department of Agriculture (USDA), Forest Service, North Central Research Station, is seeking an experienced permanent full-time Research Plant Physiologist to work at our Forestry Sciences Laboratory in Rhinelander, Wisconsin, on carbon/nitrogen physiology of trees growing under elevated CO<sub>2</sub> and ozone. The position is to be located in the Physiological Processes Work Unit (RWU-4152). The scientist will be compensated at a GS-13/14 level with an annual salary ranging from \$59,623 to \$91,589 depending upon experience and with a full range of health, retirement, and leave benefits. For more information or to receive a copy of the job announcement, contact: **Jim Elioff; Telephone: 651-649-5022; e-mail: [jelioff@fs.fed.us](mailto:jelioff@fs.fed.us)**. If you would like to know more about the research, contact: **J. G. Isebrands; Telephone: 715-362-1116; e-mail: [jisebrands@fs.fed.us](mailto:jisebrands@fs.fed.us)**. *The USDA Forest Service is an Equal Opportunity Employer.*

### RESEARCH NEUROPATHOLOGIST

The Stanley Foundation Research Programs, a non-profit institution supporting research on the neurobiology of severe mental illness, seeks a Board-eligible or Board-certified Neuropathologist (M.D./Ph.D. preferred) to conduct research on a large, well-characterized postmortem collection. The laboratory is in the Uniformed Services University of the Health Sciences in Bethesda, Maryland, and is associated with multidisciplinary research groups at USUHS, NIH, and Johns Hopkins Medical Center. Demonstrated competence in molecular biological techniques (*in situ* hybridization, quantitative PCR, and gel electrophoretic techniques) is required. Academic appointment at USUHS is possible. Salary commensurate with prior experience. Please forward curriculum vitae to:

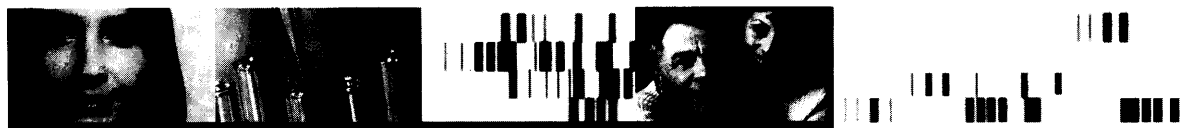
Maree Webster, Ph.D., Director  
Stanley Foundation Brain Research Laboratory  
Uniformed Services University of the Health Sciences  
Department of Psychiatry  
4301 Jones Bridge Road  
Bethesda, MD 20814

### POSTDOCTORAL POSITION

The Taub Institute for Research on Alzheimer's Disease and the Aging Brain, Columbia University, has an immediately available Postdoctoral position to study dopamine neuron survival and function in the mammalian CNS. The laboratory employs molecular genetic approaches, including transgenic mice and gene arrays, to generate and analyze novel neurodegenerative disease models (*Neuron* 25:239-252, 2000). Molecular biology experience is required. Send curriculum vitae and the names and telephone numbers of three references to: **Dr. Asa Abeliovich, Taub Institute for Research on Alzheimer's Disease and the Aging Brain, Columbia University, 630 West 168th Street, New York, NY 10032.** E-mail: [asaa@earthlink.net](mailto:asaa@earthlink.net). *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

**RESEARCH PHYSIOLOGIST** needed immediately for full-time position at Brooks Air Force Base in San Antonio, Texas. Applicant should have at least one year of postdoctoral experience. Current areas of interest include research and modeling of cardiovascular and stress responses, thermoregulation, motor control, blunt impact trauma, and biological effects of electromagnetic fields. *Applicant must be a U.S. citizen.* Applicant selected will be subject to a government security investigation and must meet eligibility requirements for access to classified information. Applications accepted through 5 June 2000. Please send curriculum vitae to: **Department of TD, Veridian Engineering, Inc., 9601 McAllister Freeway, San Antonio, TX 78216.** FAX: 210-308-7498. *Veridian is an Equal Opportunity/Affirmative Action Employer.*

**Aventis Pharma**



*The merger of the pharmaceutical companies Hoechst Marion Roussel and Rhône-Poulenc Rorer into the new global player Aventis Pharma is creating new opportunities within the pharmaceutical industry. Aventis Pharma combines an innovative pipeline with strong growth of new products in all of the world's major markets.*

As one of the world's leading pharmaceutical companies, Aventis Pharma is at the cutting edge of drug discovery and development. Our state-of-the-art Drug Innovation and Approval center in Frankfurt, Germany, is excellently equipped to deliver new drugs that will ensure a higher quality of life for people around the globe.

We are expanding our medicinal chemistry team in Frankfurt and are seeking

## **Medicinal Chemists**

**(Research and Postdoctoral Scientists)**

### **Members of this team have the following responsibilities:**

- Interdisciplinary research project driven small molecule organic synthesis,
- close interaction with molecular modeling and structural biology groups as key elements for rational drug discovery approaches,
- incorporation of physicochemical and pharmacokinetic properties for the design and synthesis in the lead optimization process,
- development and implementation of new synthetic methods and their application in combinatorial chemistry approaches for lead finding and lead optimization.

### **Research scientists:**

Qualified candidates will possess a Ph.D. in organic chemistry and a postdoctoral fellowship with demonstrated success in solving challenging organic chemistry problems.

### **Postdoctoral scientists:**

Successful candidates will possess a Ph.D. in organic chemistry with demonstrated success in solving challenging organic chemistry problems. The Postdoctoral Scientist positions are initially for a period of one year with the possibility of extension for a further year.

Experience in several of the following areas is advantageous: Medicinal chemistry/ Chemical Biology, Small molecule library synthesis development and production, Solid phase and solution phase parallel synthesis, Multi component reactions, Heterocyclic chemistry, Natural product synthesis, Organometallic chemistry, Databases and information systems.

Strong communication skills with the ability to work in multidisciplinary teams are essential.

We offer a creative scientific and international environment, which will allow you to further develop your skills very quickly. In addition we offer a competitive salary and an attractive bonus package which will suit your qualifications.

To be considered, please send a resume indicating your full career details and your salary requirements to:

**Aventis Pharma  
Deutschland GmbH**  
Application Service  
Building K 607  
D-65926 Frankfurt  
Germany  
<http://www.aventis.com>

## POSITIONS OPEN

### INFORMATICS AND DRUG DISCOVERY

Two CRTA POSTDOCTORAL FELLOWSHIPS are available in the information technology branch of the Developmental Therapeutics Program of the NCI for an individual interested in utilizing and developing informatics resources for anticancer drug discovery. The Fellows will participate in the development of new chemical and biological databases and Web resources to serve both the DTP and the extramural community. To learn more about the DTP, visit **website: <http://dtp.nci.nih.gov>**. Applicants should have a background in the biological sciences or chemistry with strong computer skills. Experience with Oracle, SQL, Java, or SAS is desirable but not required. The training duration may be up to five years (contingent on total duration of stay at NIH, which cannot exceed a maximum of eight years for any type of doctoral-level training position). To apply, send curriculum vitae and cover letter to: **Dr. Daniel Zaharevitz, Information Technology Branch, Developmental Therapeutics Program, National Cancer Institute, 6116 Executive Boulevard, Room 5011, Rockville, MD 20852. E-mail materials to: [zaharevitz@dtapx2.ncifcrf.gov](mailto:zaharevitz@dtapx2.ncifcrf.gov).**

### BETH ISRAEL DEACONESS MEDICAL CENTER HARVARD MEDICAL SCHOOL

**POSTDOCTORAL POSITION** available immediately to study molecular mechanisms of bone formation and pathogenesis of osteoporosis. Areas of interest include (1) PTH/PTHrP ligand-receptor interactions, (2) PTH regulation of osteoblast activity, and (3) the role of integrin receptors in osteoclast-mediated bone resorption. Candidates should have experience in protein biochemistry, mammalian cell culture, and molecular biology techniques. Please send curriculum vitae to: **Dr. M. Chorev, Harvard Institutes of Medicine, Room 947, 77 Louis Pasteur Avenue, Boston, MA 02115. FAX: 617-667-4432; e-mail: [michael\\_chorev@hms.harvard.edu](mailto:michael_chorev@hms.harvard.edu).**

### NEUROANATOMICAL RESEARCH DEPARTMENT OF PSYCHIATRY AND THE M.I.N.D. INSTITUTE University of California Davis

**POSTDOCTORAL POSITIONS** are available immediately to carry out neuroanatomical studies of the nonhuman primate and human amygdala and hippocampal formation. Various projects are planned including postmortem analysis of the autistic brain. Applicants must have substantial expertise in modern neuroanatomical techniques such as immunohistochemistry and *in situ* hybridization. To apply or for further information, please contact: **Dr. David G. Amaral, Center for Neuroscience, 1544 Newton Court, Davis, CA 95616. E-mail: [damaral@ucdavis.edu](mailto:damaral@ucdavis.edu).**

Two **POSTDOCTORAL POSITIONS** available for molecular biochemists to join a multidisciplinary academic research program investigating sulfur metabolism across species but emphasizing humans. The program uses advanced approaches to study and define the properties of enzymes that catalyze sulfate activation and transfer. We are currently focused on issues of chemical coupling through conformational change, catalytic functions that emerge from higher-order interactions in the cell, sulfuryl transfer as a mechanism for metabolic control, and GTPase function. Send curriculum vitae and three letters of recommendation to: **Professor Thomas S. Leyh, Department of Biochemistry, The Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. E-mail: [leyh@aecom.yu.edu](mailto:leyh@aecom.yu.edu). Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available to carry out protein engineering of antibodies and T cell receptors. Experience in biophysical techniques and/or molecular immunology preferred but not essential. Please send curriculum vitae, research interests, and details of three references to: **Dr. E. Sally Ward, Center for Immunology, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-8576 U.S.A. E-mail: [sally@skylab.swmed.edu](mailto:sally@skylab.swmed.edu). Equal Opportunity Employer.**

## POSITIONS OPEN

### POSTDOCTORAL ASSOCIATE

Seeking individual who will be responsible for conducting research in an NIH-funded laboratory, which involves cloning, transfection, and functional analyses of genes that regulate the cell cycle and apoptosis of human cancer cells.

Ph.D. in biology, biological sciences, life sciences, or other related field as well as interest in cancer research. Experience with animal models, the yeast two-hybrid system, and tissue culture is desirable. Excellent English skills (both written and verbal) required.

Outstanding research environment and competitive compensation. Send curriculum vitae and the names of three references to: **Professor Kapil Bhalla, M.D., H. Lee Moffitt Cancer Center and Research Institute, 12902 Magnolia Drive, MRC-3E, Tampa, FL 33612. E-mail: [Bhallakn@moffitt.usf.edu](mailto:Bhallakn@moffitt.usf.edu).**

The Matrix Metalloproteinase Unit (MMPU) of the National Institute of Dental and Craniofacial Research (NIDCR) is seeking **POSTDOCTORAL FELLOWS** to join the ongoing research program.

The research of the MMPU is focused on understanding the role of proteolytic enzymes in tissue remodeling during development, in homeostasis, and in disease with specific emphasis on morphogenesis and pathophysiological processes associated with tissue destruction. The laboratory has an expanding field of interest in characterization of metalloproteinases originating in a long-standing research effort on characterization of matrix metalloproteinases (MMPs), their activation, biological function, and inhibition by tissue inhibitors of metalloproteinases (TIMPs).

Candidates with a strong background in one or more of the following relevant areas (mouse and human molecular genetics, protein biochemistry, cell biology, and experimental disease models) are encouraged to submit their applications, including curriculum vitae, relevant publications, and names of individuals who can provide letters of recommendation. Applications should be sent to: **Ms. Sharon Wentzel, NIDCR, Building 30, Room 132, 30 Convent Drive MSC 4326, Bethesda, MD 20892-4326. NIH is an Equal Opportunity Employer.**

### POSTDOCTORAL POSITIONS W. HARRY FEINSTONE CENTER FOR GENOMIC RESEARCH

Positions are available immediately to study chemical carcinogenesis, cancer chemoprevention, regulation of basic helix-loop-helix transcription factors, and Genechip® analysis of drug efficacy and toxicity. Experience in molecular/cellular biology and cell culture techniques or xenobiotic metabolism and analytical chemistry is required. Graduates with a degree in biology, biochemistry, or toxicology are encouraged to apply. These positions are for one year with the possibility of renewal for up to three years. Interested individuals should provide their curriculum vitae and a list of three references to: **Dr. Thomas R. Sutter, University of Memphis, 201 Life Sciences Building, Memphis, TN 38152-3560. The University of Memphis is an Equal Opportunity/Affirmative Action Employer.**

**POSTDOCTORAL POSITION** is available for an NIH-funded project in a state-of-the-art research laboratory aimed at developing novel gene therapy approaches for the treatment of liver disease. We are seeking a creative, organized, and highly motivated individual with a strong background in molecular biology, cell culture, and characterization of animal models. Send curriculum vitae and three letters of recommendation to: **Timothy J. Davern, M.D., Gastrointestinal Division, University of California, San Francisco School of Medicine, 513 Parnassus Avenue S357, San Francisco, CA 94115-0538.**

## POSITIONS OPEN

### POSTDOCTORAL RESEARCH POSITIONS IN MICROBIOLOGY

#### American Society for Microbiology/ National Center for Infectious Diseases

Positions are available for Postdoctoral Scientists to conduct novel research with the overall objective of developing practical applications of microbiology, immunology, and epidemiology for diagnosis and prevention of infectious diseases. Associates will perform research in residence at the National Center for Infectious Diseases, which is headquartered at the Centers for Diseases Control and Prevention in Atlanta, Georgia.

Deadline for applications is November 15, 2000. **Website: <http://www.asmusa.org/edusrc/edu23c.htm>; e-mail: [fellowships-careerinformation@asmusa.org](mailto:fellowships-careerinformation@asmusa.org) or [ihulede@asmusa.org](mailto:ihulede@asmusa.org).**

Two **POSTDOCTORAL RESEARCH ASSOCIATE** positions available immediately in the Center for Cell and Gene Therapy at Baylor College of Medicine to study tumor immune therapy and gene therapy or HIV gene therapy (*Nature* 385:78, 1997; *Nature Biotech.* 15:46, 1997; *PNAS* 94:11567, 1997; *Nature Medicine* 3:1110, 1997). Experience in immunology, molecular biology, and animal models is desired. Interested applicants (Ph.D. or M.D.) should forward their curriculum vitae and names of three references to:

**Dr. Si-Yi Chen  
Center for Cell and Gene Therapy, N1004  
Department of Molecular and Human Genetics  
Baylor College of Medicine  
Houston, TX 77030  
FAX: 713-798-1230; e-mail: [syichen@bcm.tmc.edu](mailto:syichen@bcm.tmc.edu)**

### POSTDOCTORAL POSITION MOLECULAR CELL BIOLOGY

An NIH-funded Postdoctoral research position is available immediately to investigate the cellular physiology of STAT proteins in mammalian cells with an emphasis on elucidating mechanisms involved in plasma membrane to cytoplasm to nucleus transit of cytokine- and growth factor-activated STAT transcription factors. Ph.D. and a background in molecular biology and biochemistry are essential. Please send curriculum vitae and three references to: **Dr. Pravin B. Sehgal, Room 201, Basic Sciences Building, Department of Cell Biology and Anatomy, New York Medical College, Valhalla, NY 10595. E-mail: [pravin\\_sehgal@nymc.edu](mailto:pravin_sehgal@nymc.edu).**

### POSTDOCTORAL POSITION Harvard Medical School

Position available to study the molecular basis of neuronal degeneration in Alzheimer's and other neurodegenerative diseases. Projects focus on molecular mechanisms of neuronal apoptosis and the role of genes that predispose to neuronal cell death. For reference, see *PNAS* 96:6959, 1999; *Nature* 395:698, 1998; *Neuron* 16:921, 1996. Experience in molecular and cell biology is required. Send curriculum vitae, a brief description of research experience, and names of three references to: **Dr. Bruce Yankner, Children's Hospital, Enders 260, 300 Longwood Avenue, Boston, MA 02115. FAX: 617-738-1542. An Equal Opportunity Employer.**

**POSTDOCTORAL POSITION** available: position in a highly productive laboratory at the Dana-Farber Cancer Institute in the Harvard Medical area, Boston, MA. The position involves studies of exciting new interactions between integrin-type cell adhesion receptors and other transmembrane proteins involved in cell motility, signaling, and MMP production. Pilot studies in cell surface proteomics are also underway. The laboratory is well funded, and there are ample opportunities to attend meetings, give seminars, and take advantage of the enormous level of expertise in the Harvard medical area. For more information, see **website: [http://dfciwww.dfci.harvard.edu/hemler\\_lab/](http://dfciwww.dfci.harvard.edu/hemler_lab/); e-mail: [Martin\\_Hemler@DFCI.Harvard.EDU](mailto:Martin_Hemler@DFCI.Harvard.EDU).**

**INDUSTRY DEPARTMENT**  
**The Government of the Hong Kong Special Administrative Region**

- Vacancies of
- (1) **Senior Technologist (New Technologies)**
  - (2) **Technologist (New Technologies)**
  - (3) **Technologist (Electronics)**
  - (4) **Technologist (Information Technology)**
  - (5) **Technologist (Precision Engineering)**

We are looking for suitable candidates to fill the following vacancies in the Industry Department of the Government of the Hong Kong Special Administrative Region.

**(1) Senior Technologist (New Technologies)** (Salary : HK\$917,820 per annum)

**(2) Technologist (New Technologies)** (Salary : HK\$423,420 per annum)

**Entry Requirements:**

- (a) 1st or 2nd class honours degree in science or engineering from a Hong Kong university, or equivalent. A higher degree in relevant disciplines is preferred;
- (b) normally eight years' post-graduate experience in the relevant fields for the post of Senior Technologist and four years for the post of Technologist; and
- (c) knowledge of the various emerging and advanced technologies in materials science, telecommunications, nanotechnologies, or magnetic/photonic systems.

**Duties:** The Senior Technologist and the Technologist work as a team to carry out the following duties:

- (a) to provide technical advice on various emerging and advanced technologies;
- (b) to examine and evaluate project proposals and to monitor the progress of approved projects under the Industry Department's funding schemes involving such technologies;
- (c) to monitor the technological development of local and overseas industries in respect of adopting or evaluating such new and emerging technologies;
- (d) to build a knowledge base on such new and emerging technologies and to disseminate appropriate information and advice to Hong Kong's industries; and
- (e) to provide support to the various Project Vetting Committees of the Innovation and Technology Fund where applications involving such new and emerging technologies are considered.

**(3) Technologist (Electronics)** (Salary : HK\$423,420 per annum)

**(4) Technologist (Information Technology)** (Salary : HK\$423,420 per annum)

**(5) Technologist (Precision Engineering)** (Salary : HK\$423,420 per annum)

**Entry Requirements:** Applicants should have:

- (a) a 1st or 2nd class honours degree in the related subject from a Hong Kong university, or equivalent. A higher degree in the relevant disciplines is preferred;
- (b) normally four years' post-graduate experience in the relevant fields. Experience in assessing the technical and commercial merits of projects in the related fields and managing their operation is preferred; and
- (c) knowledge of the latest technological development in the relevant fields.

**Duties:** To assist the relevant Senior Engineers in:

- (a) providing technical advice and support on the relevant fields;
- (b) examining and evaluating project proposals and monitoring the progress of approved projects under the Industry Department's funding schemes;
- (c) providing secretariat and technical support to the relevant Project Vetting Committees of the Innovation and Technology Fund;
- (d) monitoring the technological development of the local and overseas relevant industries; and
- (e) building up a knowledge base on the relevant technologies.

**Terms of Appointment:** Successful candidates will be appointed on 2-1/2 years non-civil service contract terms.

**Fringe Benefits:**

- (a) A gratuity may be granted if the contract is satisfactorily completed with consistently high standard of performance and conduct. Such gratuity, plus any contribution by the Government to a Mandatory Provident Fund (MPF) scheme in respect of the appointee as required by the Hong Kong MPF Schemes Ordinance, will equal to 15% of the total basic salary drawn during the contract period.
- (b) Rest days, statutory holidays (or substituted holidays), annual leave, maternity leave, sickness allowance, where appropriate, will be granted in line with the provisions of the Hong Kong Employment Ordinance.

**How to Apply:**

Application should be made in letter form together with a full C.V. giving details of personal particulars, education, and present and previous employments (copies of academic qualification certificates and record of previous employments should be provided). Applications should reach the Personnel Section, Industry Department, Room 1439, 14/F., Ocean Centre, 5 Canton Road, Tsim Sha Tsui, Kowloon, HONG KONG not later than **23 JUNE 2000**. Candidates who are selected for interview will normally receive an invitation in about six weeks from the closing date for application. Only shortlisted candidates will be notified of the result of application. (Note : candidates will be required to make passage and accommodation arrangements at their own cost for attending selection interview.)

## POSITIONS OPEN

### POSTDOCTORAL POSITION MOLECULAR GENETICS OF GROWTH CONTROL Cancer Research

Postdoctoral positions are available to study the molecular mechanisms that regulate cell proliferation and death during tumorigenesis. We are studying human cancers as well as transgenic and knockout systems in mice in order to understand the molecular mechanisms of tumor progression. We seek highly motivated individuals with a recent Ph.D. in molecular/cell biology, genetics, biochemistry or a related science, and a strong publication record. More information about the Department of Biological Sciences at the University of Pittsburgh is available at [website: http://www.pitt.edu/~biology](http://www.pitt.edu/~biology). Applicants should send curriculum vitae, short statement of research interests, and the names of three references to:

**Dr. James M. Pipas**  
Professor and Chair  
Department of Biological Sciences  
University of Pittsburgh  
Pittsburgh, PA 15260  
U.S.A.

*The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer. Women and members of underrepresented minority groups are especially encouraged to apply.*

**POSTDOCTORAL POSITIONS:** molecular organization of neuronal signaling proteins. Positions available to study protein-protein interactions involved in the assembly, targeting, and function of ion channels and receptors in mammalian neurons. Current projects involve use of biochemical, cell biological, and molecular genetic approaches in the characterization of interactions occurring during subunit assembly and intracellular trafficking (*Neuron* 16:843; *JCB* 148:147) and between surface channels/receptors and cytoplasmic determinants of localization and function (*Nature* 403:553; *Neuron* 25:385). Applicants must have a strong research background as evidenced by peer-reviewed publications. Send curriculum vitae and names of three references to: **Dr. James S. Trimmer, Department of Biochemistry and Cell Biology, SUNY, Stony Brook, NY 11794-5215. E-mail: james.trimmer@sunysb.edu; website: http://www.sunysb.edu/biochem/BIOCHEM/facultypages/trimmer/index.html.** *The State University of New York at Stony Brook is an Equal Opportunity/Affirmative Action Employer.*

**POSTDOCTORAL POSITIONS** in neurochemistry at the University of California, San Diego, are available immediately to investigate (1) proteolytic mechanisms required for converting protein precursors into neuropeptides that function as neurotransmitters and hormones or (2) proteolytic mechanisms in Huntington's disease. Projects involve identification of proneuropeptide-derived proteolytic products by interdisciplinary approaches in peptide/protein biochemistry, proteome analyses by mass spectrometry, analyses of cellular production of neuropeptides in cultured cells, and molecular biology for gene expression and cloning. Ph.D. in relevant discipline is required, as well as laboratory experience in these areas. Send curriculum vitae and names of three references to: **Dr. V. Hook, c/o M. Richards, Department of Medicine, University of California, San Diego, 9500 Gilman Drive #0822, La Jolla, CA 92093-0822. FAX: 619-543-2881; e-mail: mrichards@ucsd.edu.** (Note: 1 = #1 in e-mail address.)

**POSTDOCTORAL POSITION** to identify new ER stress signaling pathways in mammalian systems using genetic and biochemical approaches. See *PNAS* 96:13050-13055. Send summary of research objectives, curriculum vitae, and names of three references to: **Professor Mark Lehrman, Department of Pharmacology, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75390-9041. E-mail: mlehm@mednet.swmed.edu.** *An Equal Opportunity Employer.*

## POSITIONS OPEN

### ARCHER DANIELS MIDLAND COMPANY

Archer Daniels Midland, a world leader in agricultural processing, has two openings in the molecular biology group. ADM operates a modern well-equipped research facility near its corporate headquarters in Decatur, Illinois.

The research division is seeking two bright, motivated Ph.D.s for two-year **POSTDOCTORAL APPOINTMENTS**. Candidates should be self-starters, having a record of successful problem solving in the fields of molecular genetics and biochemistry. An understanding of microbial physiology is relevant for these positions.

The individuals chosen will develop transformation systems, shuttle vectors, and gene expression systems for novel fungal or prokaryotic industrial microorganisms. Experience in protein purification and enzyme assay is useful but not essential. Benefits include health, life, disability, dental, and ESOP plan. Each position pays \$45,000 per year. Qualified individuals should forward cover letter, résumé, names of at least two references, and date when available to:

**Michael Marty**  
Employment Representative  
Archer Daniels Midland  
P.O. Box 1470  
Decatur, IL 62525

*ADM is an Equal Opportunity Employer.*

### MEDICAL/SCIENTIFIC RESEARCH ANALYST

Major law firm is seeking applicants for the position of Research Analyst in their Houston, Texas, office. Duties include review and analysis of medical literature on a variety of topics in the context of pharmaceutical product liability litigation. Position requires review and analysis of medical records and the preparation and communication to nonscientists of analyses of medical issues. Position may require some travel. This is a high-intensity position which emphasizes practical application of scientific knowledge and requires a result-oriented and self-motivated individual. Position provides a unique opportunity for scientists to apply their skills outside the area of basic research.

This position requires an outstanding academic record and a graduate degree in biological, life, or biomedical sciences. A working knowledge of pharmacology and/or epidemiology is preferred but not required. Excellent communication skills, both verbal and written, are essential. No legal education or experience required but outstanding interpersonal skills are a must.

Please send a letter of application, complete college transcripts, a personal résumé, and references to: **Shook, Hardy & Bacon L.L.P., Attention: Office Manager, Chase Tower, 600 Travis, Suite 1600, Houston, TX 77002.**

**Mayo Clinic POSTDOCTORAL FELLOWSHIP POSITION(S)** in biochemistry and molecular biology. A Postdoctoral position(s) is available immediately in the Department of Biochemistry and Molecular Biology to investigate the action of transforming growth factor beta (TGF- $\beta$ ). Research topics include (1) the identification and characterization of endocytic motifs in the TGF- $\beta$  receptor complex, (2) defining the relationship between receptor trafficking and TGF- $\beta$  signaling, and (3) determining the role of rab proteins and AP family members in TGF- $\beta$  receptor action. See *J. Biol. Chem.* 275:13149-13154, 2000; *J. Biol. Chem.* 273:31770-31777, 1998; *J. Biol. Chem.* 273:23118-23125, 1998; *Mol. Biol. Cell* 8:2133-2143, 1997 for recent related studies.

A Ph.D. (or M.D./Ph.D.) is required, and experience in cell and/or molecular biology is preferable. Please forward your curriculum vitae, statement of research interests, and three letters of recommendation to: **Edward B. Leof, Ph.D., Department of Biochemistry and Molecular Biology, Mayo Clinic, Guggenheim 642-C, 200 First Street S.W., Rochester, MN 55905. E-mail: leof.edward@mayo.edu.** *Mayo Foundation is an Affirmative Action and Equal Opportunity Employer and Educator.*

## POSITIONS OPEN

### POSTDOCTORAL POSITION FOR METHYLATION MICROARRAY

This position is available immediately to join an expanding group studying epigenetic and genetic alterations in cancer. Research will involve using high-throughput technologies to interrogate these alterations at the whole genome level. Strong motivation in research and prior publications in molecular biology are required. Please send curriculum vitae, reprints, and the names of references to: **Tim H.-M. Huang, Ph.D., Associate Professor of Pathology and Anatomical Sciences, Ellis Fischel Cancer Center, University of Missouri, Columbia, MO 65203. E-mail: huangh@health.missouri.edu.** *University of Missouri is an Equal Opportunity Employer.*

### POSTDOCTORAL POSITION W. HARRY FEINSTONE CENTER FOR GENOMIC RESEARCH

Immediate opening to study computational analysis of Genechip® data. Experience in statistical analysis of biological data and strong computer skills are required. Graduates with a degree in biostatistics, epidemiology, or computer science are encouraged to apply. These positions are for one year with the possibility of renewal for up to three years. Interested individuals should provide their curriculum vitae and a list of three references to: **Dr. Thomas R. Sutter, University of Memphis, 201 Life Sciences Building, Memphis, TN 38152-3560.** *The University of Memphis is an Equal Opportunity/Affirmative Action Employer.*

### POSTDOCTORAL POSITION

A Postdoctoral position is available immediately to work on various funded projects on topoisomerases and ovarian cancer. Candidates should have a recent Ph.D. degree with a strong background in molecular and cell biology. Experience in gene regulation and signaling pathways is particularly desirable. Applicants are invited to send curriculum vitae, summary of research interests and experience, and three references to: **Dr. Alex Ng, Laboratory of Gynecologic Oncology, Brigham and Women's Hospital, Harvard Medical School, 221 Longwood Avenue, BLI-449, Boston, MA 02115. E-mail: sng@rics.bwh.harvard.edu.** *Brigham and Women's Hospital and Harvard Medical School are Equal Opportunity Employers.*

### POSTDOCTORAL POSITIONS VASCULAR BIOLOGY HARVARD MEDICAL SCHOOL

Available immediately to study the transcriptional regulation of endothelial cell-specific genes. Send curriculum vitae and names of three references to: **Dr. William Aird, Molecular Medicine RW-663, Beth Israel Deaconess Medical Center, 330 Brookline Avenue, Boston, MA 02215. FAX: 617-667-2913; e-mail: waird@caregroup.harvard.edu.** *Equal Opportunity Employer.*

**POSTDOCTORAL POSITIONS:** Available immediately for an NIH-funded project studying the developmental potential of the hematopoietic stem cells. A strong background in molecular biology and cell biology with an interest in molecular determinates of stem cell fate is required. Candidates with a background in developmental immunology are particularly encouraged to apply. Send curriculum vitae to: **William H. Fleming, M.D., Ph.D., Division of Hematology and Medical Oncology, Oregon Health Sciences University, Portland, OR 97201. FAX: 503-494-2770; e-mail: flemingw@ohsu.edu.**

**POSTDOCTORAL POSITION** to investigate prolactin and growth factor interactions in breast cancer. Experience with transgenic and/or molecular techniques desirable. Send curriculum vitae and names of three references to: **Linda Schuler, Ph.D., Department of Comparative Biosciences, 2015 Linden Drive West, University of Wisconsin, Madison, WI 53706. FAX: 608-263-3926; e-mail: schulerl@svm.vetmed.wisc.edu.** *Must be U.S. citizen or permanent resident. Women and minority candidates are encouraged to apply.*

# Geneva Proteomics

*We are not just talking:*

GeneProt is building the world's first industrial scale integrated proteomics factory in Geneva, Switzerland. The facility will have more than 50 mass spectrometers.

*We are seeking more than 100 people in the areas of:*

## **Protein separation**

by liquid-phase and gel-based procedures.

## **Protein and peptide mass spectrometry:**

MALDI-TOF, ion-trap and Q-tof.

## **Bioinformatics**

in collaboration with the world-leading company GeneBio, Geneva Bioinformatics SA.

Key scientists involved in GeneProt include: Ron Appel, Amos Bairoch, Denis Hochstrasser, Robin Offord and Keith Rose.

If you feel that you have an exceptional track record, or exceptional potential, we want to hear from you. We are recruiting at all levels from expert technician to internationally known independent scientists.

If you feel you have the potential to contribute to this exciting and challenging enterprise, please send your resumé and a brief message, to the appropriate E-mail address.

All enquiries will be treated in strictest confidence.



### **E-mail addresses**

Protein separation:  
**HR.PROT@GENEPROT.COM**

Mass-spectrometry:  
**HR.MASS@GENEPROT.COM**

Bioinformatics:  
**HR.BIOINFO@GENEPROT.COM**

## **FACULTY POSITIONS IN STEM CELL BIOLOGY UNIVERSITY OF MINNESOTA**

The recently established Stem Cell Institute at the University of Minnesota invites applications for Tenure/Tenure-Track positions in stem cell biology, with emphasis on neural, hepatic, pancreas, and mesenchymal stem cells. The Institute's goals are to further develop research in multipotent stem cells — such as ES, hematopoietic, neuronal, mesenchymal, hepatic, pancreas and others. This cross-departmental Institute will foster interactions between investigators with different expertise/skills ranging from developmental biology, molecular biology, cell biology, and physiology to understand the genetic, phenotypic, differentiation and maturation characteristics of stem cells.

Successful candidates will be expected to develop a strong extramurally funded research program in the field of stem cell biology. Areas of expertise include stem cell biology, physiology, genomics / proteomics, and targeted modification of the stem cell genome. Strong emphasis will be placed on the candidate's ability to interact with faculty in the Stem Cell Institute and other faculty at the University of Minnesota. Candidates will have the opportunity to teach undergraduate and graduate students. Applications are accepted at the Assistant Professor level or from outstanding senior scientists at the Associate Professor or Professor level. Appointments can occur in Basic Science or Clinical Departments. Candidates must have a Ph.D and/or M.D. degree, must be a U.S. citizen or able to secure permanent resident status. Salary and startup funds are competitive and commensurate with education and experience.

Applicants should send a CV, statement of research interests, and three letters of reference to:

**Search Committee**  
**Lauri Andersen (cc: Catherine M. Verfaillie, M.D.)**  
Mayo Box 806,  
420 Delaware Street SE,  
Minneapolis, MN 55455.  
Or [ander607@tc.umn.edu](mailto:ander607@tc.umn.edu)

The review process will start July 1, 2000 and continue until the position is filled.

*The University of Minnesota is an equal opportunity employer.*

## **LAWRENCE POSTDOCTORAL FELLOWSHIP**

The **Lawrence Berkeley National Laboratory (LBNL)** is a multi-program national research facility located in Berkeley, CA and operated by the University of California for the Department of Energy (DOE).

The Lawrence Postdoctoral Fellowship's primary objective is to identify, develop and enhance career opportunities and the overall competitive profile of members of groups historically underrepresented in their scientific disciplines.

This year, the Lawrence Postdoctoral Fellowship Program is searching for prospective fellows in four research areas: energy sciences, general sciences, biosciences and computer sciences. Visit LBNL's website at [www.lbl.gov](http://www.lbl.gov) for more detailed descriptions of these scientific programs.

To qualify, you must be a United States citizen or hold permanent resident alien (PRA) status, and have received a doctoral research degree in an appropriate scientific or engineering discipline within three years of the appointment start date.

Applications for the Lawrence Postdoctoral Fellowship are being accepted now through August 1st. For further details and to secure a copy of the application, visit [www.lbl.gov/Workplace/WFDO/PostDoc.html](http://www.lbl.gov/Workplace/WFDO/PostDoc.html). You must send a resume with the application and include the reference **WFJS** in the cover letter. Berkeley Lab is an AA/EEO employer.



## POSITIONS OPEN

### PROGRAM DIRECTOR FOR THEORETICAL ATOMIC, MOLECULAR, OPTICAL, AND PLASMA PHYSICS

Division of Physics  
National Science Foundation  
Arlington, Virginia 22230

NSF's Division of Physics seeks qualified candidates for the position of Program Director for Theoretical Atomic, Molecular, Optical, and Plasma (AMOP) Physics with the Division of Physics. The incumbent will provide management and direction to the proposal-driven Theoretical AMOP Physics Program. The program supports a large number of individual investigators and groups at universities and the Institute for Theoretical Atomic and Molecular Physics. The Division of Physics also encourages strong efforts aimed at outreach and the integration of research and education at the K-12 level.

Appointment to this position will be on a one-year Visiting Scientist, temporary, or Intergovernmental Personnel Act (IPA) basis. The salary range for Visiting Scientist or temporary positions is \$71,954 to \$112,141. A selectee assigned under the IPA provisions retains current salary and applicable benefits through the home institution. IPA applicants must be career employees of eligible organizations for at least 90 days prior to entering an assignment. *Certain citizen requirements may have to be met.* Applicants must have a Ph.D. or equivalent professional experience in theoretical AMOP physics, six or more years of successful research in theoretical AMOP physics, and strong evidence of scholarship in AMOP physics. Prior experience in research administration or management is considered desirable.

Applicants should contact: **Ms. Sybil Smith; Telephone: 703-306-1185, extension 3090 (hearing impaired individuals may call TDD 703-306-0189)** to request application procedures. Attention: EX00-61.

Formal consideration of applications will commence immediately and will continue until June 15, 2000, or until successful candidates have been identified. *We are particularly interested in attracting qualified women and underrepresented minority candidates to these positions.*

### MANAGER MASS SPECTROMETRY/ PROTEOMICS FACILITY

The University of Texas Medical Branch in Galveston has a position open for a **FACILITY MANAGER** of a newly organized Mass Spectrometry/Proteomics Facility.

The Facility is a centralized University core that will utilize new state-of-the-art MALDI-TOF and ion trap instrumentation for nano ESI/MS, MS<sup>n</sup>, LC/MS, and proteomics applications. Candidates must have a Ph.D. with relevant training and experience in the analysis of biomolecules using a variety of MS modes. The applicant will be responsible for the continued development of the Facility, implementation of methodologies, supervising two Research Associates, and for the daily oversight of the core laboratory. Experience in mass spectrometry relating to proteome analysis, drug metabolism, protein posttranslational modifications, oligonucleotides, or protein-protein interactions will be highly regarded. We are seeking a highly motivated individual with good interpersonal skills who can function in a multidisciplinary academic medical school setting. Salary will be commensurate with training and experience.

Applicants should send curriculum vitae and names, addresses, and e-mails of three references to: **Dr. Alex Kurosky, Chair, MS Search Committee, Department of Human Biological Chemistry and Genetics, The University of Texas Medical Branch, Galveston, TX 77555-0645. E-mail: akurosky@utmb.edu.** *University of Texas Medical Branch is an Affirmative Action/Equal Opportunity Employer; Minorities/Females/Disabled/Veterans.*

## POSITIONS OPEN

### PROGRAM DIRECTOR FOR GRAVITATIONAL PHYSICS AND LIGO

Division of Physics  
National Science Foundation  
Arlington, Virginia 22230

NSF's Division of Physics seeks qualified candidates for the position of Program Director for Gravitational Physics, Division of Physics. The incumbent will provide management and oversight of the Laser Interferometer Gravitational-Wave Observatory (LIGO) project including commissioning, operations, and advanced research and development and of the research program of the LIGO users (the LIGO Scientific Collaboration) within the Gravitational Physics Program. The program supports a large number of individual investigators and groups engaged in experimental and theoretical research in gravitational physics. The experimental program includes support of research in bar and interferometer gravitational radiation detectors. LIGO is the centerpiece facility in this program. The program also has strong efforts aimed at outreach and the integration of research and education.

Appointment to this position will be on a one-to-two-year Visiting Scientist, temporary, or Intergovernmental Personnel Act (IPA) basis. The salary range for Visiting Scientist or temporary positions is \$71,954 to \$112,141. A selectee assigned under the IPA provisions retains current salary and applicable benefits through the home institution. IPA applicants must be career employees of eligible organizations for at least 90 days prior to entering an assignment. *Certain citizen requirements may have to be met.* Applicants must have a Ph.D. or equivalent professional experience in physics or a closely related field, six or more years of successful research experience in physics or a closely related field (including large-project management and/or research administration or management), and strong evidence of scholarship in physics or a closely related field.

Applicants should contact: **Ms. Sybil Smith; Telephone: 703-306-1185, extension 3090 (hearing-impaired individuals may call TDD 703-306-0189)** to request application procedures. Attention: EX00-61. Formal consideration of applications will commence immediately and will continue until June 15, 2000, or until successful candidates have been identified. *We are particularly interested in attracting qualified women and underrepresented minority candidates to these positions.*

A **POSTDOCTORAL POSITION** is available immediately for a strongly motivated individual to use DNA microarray analysis in the study of lung cancer and genes regulated by TGF-beta. The lung cancer array work is done in collaboration with **Dr. Pat Brown** and **Dr. David Botstein** in the Department of Genetics. A Ph.D. in molecular biology, biochemistry, or related field is required. Send letter of interest, curriculum vitae, and three letters of reference by e-mail to: **Dr. Glenn D. Rosen, Stanford University; e-mail: grosen@leland.stanford.edu.** *Stanford University is an Equal Opportunity Employer.*

Two **POSTDOCTORAL POSITIONS** to study insulin receptor and cytokine signal transduction in beta cells and diabetes. Experience in molecular biology and/or biochemistry essential. Send research interests, curriculum vitae, and names of three references to: **Dr. Bryan Wolf, Department of Pathology, University of Pennsylvania, 230 John Morgan, Philadelphia, PA 19104. FAX: 215-573-2266; e-mail: wolfb@mail.med.upenn.edu.** *Equal Opportunity Employer.*

### POSTDOCTORAL POSITION HARVARD MEDICAL SCHOOL

Strong molecular skills, especially microsample PCR. To clone antibody genes of single autologous tumor-reactive B cells and plasma cells; to isolate and study tumor antigens. Send résumé, summary of prior research, and three reference names by FAX to: **Dr. R. Junghans; FAX: 617-432-7007.**

## POSITIONS OPEN

### POSTDOCTORAL POSITIONS DISEASE GENES AND PATHOGENESIS

Postdoctoral positions are available to investigate the biological role of disease genes as well as disease pathogenesis. The laboratory studies diseases affecting cardiovascular and skeletal development as well as thiamin transport. A strong background with molecular biology and/or transgenic mice is required. Applicants holding Ph.D. and/or M.D. degrees should submit their curriculum vitae and the names of three references to: **Bruce D. Gelb, M.D., Associate Professor of Pediatrics and Human Genetics, Mount Sinai School of Medicine, One Gustave L. Levy Place, Box 1498, New York, NY 10522. Telephone: 212-659-6705; FAX: 212-849-2508; e-mail: gelbb01@doc.mssm.edu.** Visit us at website: **www.mssm.edu.** *We are an Equal Opportunity Employer fostering diversity in the workplace.*

### POSTDOCTORAL FELLOW

Mount Sinai School of Medicine is a leader in medical education and research. To help us maintain our high standards, we are seeking a curious, talented, and highly motivated individual to study prostate cancer angiogenesis. We desire an individual with training and experience in the fields of cellular and molecular biology. Send curriculum vitae, description of research experience, and names of references to: **Dr. Alice Levine, Division of Endocrinology, Box 1055, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029. FAX: 212-241-4218; e-mail: alice.levine@mssm.edu.** Visit our website: **www.mssm.edu.** *We are an Equal Opportunity Employer and foster diversity in the workplace.*

**POSTDOCTORAL RESEARCH ASSOCIATE** sought to join multidisciplinary molecular and cellular neuroscience group in studies of native or recombinant nicotinic acetylcholine receptors and subunit genetics. Investigations encompass molecular genetic, protein chemical, electrophysiological, immunological, and pharmacological approaches in a unique and dynamic institution. Send curriculum vitae; names and addresses of three references; and brief statement of research experience, interests, and career objectives to: **R. J. Lukas, Ph.D., Division of Neurobiology, Barrow Neurological Institute, St. Joseph's Hospital and Medical Center, 350 West Thomas Road, Phoenix, AZ 85013. E-mail: rlukas@chw.edu.** *Affirmative Action/Equal Opportunity Employer.*

**POSTDOCTORAL POSITION** available immediately for recent Ph.D. in the biomedical sciences interested in teaching an innovative precollege biotechnology curriculum and helping implement community-based adult education programs. Experience is not required. Successful applicants will acquire excellent teaching and communication skills, which can enhance future employment opportunities. A minimum two-year commitment is required. You can e-mail your application or inquiries to: **franzbla@bu.edu** or mail your application to: **Dr. C. Franzblau, Department of Biochemistry, Boston University School of Medicine, 715 Albany Street, Boston, MA 02118.**

**POSTDOCTORAL POSITION** in angiogenesis research, Department of Surgical Research, Children's Hospital, Harvard Medical School. The head of the department is **Professor Judah Folkman**, pioneer of angiogenesis. Purpose is to investigate the structure and function of two antiangiogenic proteins, endostatin and angiostatin. Both are in clinical trials as anticancer drugs. The candidate must have experience in cell biology and gene cloning. Knowledge of protein purification is a plus. Competitive salary and benefits provided. Send curriculum vitae and names of three references to: **Dr. Kashi Javaherian, Department of Surgical Research, Children's Hospital, 300 Longwood Avenue, Boston, MA 02115.**

# DIRECTOR, MRC LABORATORY FOR MOLECULAR CELL BIOLOGY



*We invite applications from scientists of exceptional ability and international standing to lead the MRC Laboratory for Molecular Cell Biology at University College London.*

As Director of the MRC LMCB, you will provide leadership and overall scientific direction to over 100 scientists engaged in a wide range of research embracing signal transduction, membrane trafficking, intracellular and nuclear events, in normal and aberrant conditions - to increase our understanding of fundamental cell science and to maximise the application of such investigations in the post-genomic era.

The Director should be an outstanding scientist with the vision and breadth to identify key issues in molecular and cell biology, as well as the leadership skills necessary to organise intra- and inter-departmental research. You will be expected to continue your own research programme. Key to success will be your ability to train and develop post-doctoral scientists with research interests in cell science.

Strong scientific acumen and stature in the fields of molecular or cell biology are essential; you should be experienced in organising a substantial research programme and attracting external funds, working within a leading University Department or Research Institution.

The expectation is that this will be an MRC position. The MRC is an equal opportunities employer.

————— For further information and to discuss your interest in strict confidence, please contact —————

**Dr Kevin Young, Euromedica plc. 7 Heron Quays, Docklands, London E14 4JB. UK**  
Telephone 44-(0)20 7536 7950. Fax 44-(0)20 7538 8362. E-mail: kevinyoung@euromedica.com

## GLOBAL OPPORTUNITIES

### THE UNIVERSITY OF HONG KONG

香 港



大 學

#### Post-doctoral Fellow in the Department of Paediatrics

Applications are invited for appointment as Post-doctoral Fellow in the Department of Paediatrics (Ref: RF-1999/2000-288), tenable from as soon as possible, for a period of three years on temporary terms. The selected candidate must be in post on or before 30 September 2000.

Applicants should possess a PhD degree, preferably with a solid background in molecular biology and neuroscience. The selected candidate will undertake research in the differential regulations of critical molecules related to apoptosis involved in experimental neonatal hypoxic-ischaemic and bilirubin-induced brain injuries. Techniques to be employed include differential display: RT-PCR, subtraction hybridization, oligonucleotide/cDNA chips for microarray, and related genetic manipulations. Annual salary is fixed at: HK\$369,420 (approx. US\$47,422; US dollar equivalents as at 8 May 2000). The appointment carries leave, medical and dental benefits, and an allowance for children's education in Hong Kong.

Further particulars and application forms can be obtained at <http://www.hku.hk/apptunit/>. For further information on the Department, please refer to its website at <http://www.hku.hk/paed/>. Enquiries should be addressed to Dr P T Cheung, Department of Paediatrics (Fax: (852) 2855 1523 or E-mail: ptcheung@hkucc.hku.hk). Closes 16 June 2000.

*The University is an equal opportunity employer and enjoys a smoke-free environment*

## EUROPEAN OPPORTUNITIES



### UNIVERSITY OF OXFORD

#### Professor of Microbiology

The electors intend to proceed to an election to the newly-established Professorship of Microbiology with effect from 1 October 2000 or such later date as may be arranged.

The Sir William Dunn School of Pathology, where the new professorship will be held, has a distinguished record in experimental pathology. Professor Herman Waldmann, head of department since 1994, has initiated a major expansion of research. At present the department is exceptionally strong in immunology and molecular biology. A new E.P. Abraham Building will allow the department to extend its research into areas such as infectious diseases, cancer, and cardiovascular biology. The department has a tradition in basic aspects of host-pathogen interactions. The University aims to recruit a senior outstanding research leader, not necessarily medically qualified, in any relevant branch of the subject.

A non-stipendiary fellowship at Wadham College is attached to the Professorship.

Applications (eleven copies, or one only from overseas candidates), naming three persons who have agreed to act as referees on this occasion, should be received not later than 10 July 2000 by the Registrar, University Offices, Wellington Square, Oxford OX1 2JD, from whom further particulars may be obtained. Further particulars may also be accessed on the Web (URL: <http://www.admin.ox.ac.uk/fp/>).

The University is an Equal Opportunities Employer.

## POSITIONS OPEN

### PROGRAM DIRECTOR FOR EDUCATION AND INTERDISCIPLINARY RESEARCH

Division of Physics  
National Science Foundation  
Arlington, Virginia 22230

NSF's Division of Physics seeks qualified candidates for the position of Program Director for Education and Interdisciplinary Research within the Division of Physics. The incumbent will provide management and direction to the proposal-driven Education and Interdisciplinary Research Program. The program supports a large number of awards for research experiences for undergraduates, course and curriculum development, physics education, and interdisciplinary research areas such as biophysics and turbulence. The integration of research and education at the undergraduate and graduate level is a central objective in all Division of Physics programs. The Division also encourages strong efforts aimed at outreach and the integration of research and education at the K-12 level.

Appointment to this position will be on a one-to-two-year Visiting Scientist, temporary, or Intergovernmental Personnel Act (IPA) basis. The salary range for Visiting Scientist or temporary position is \$71,954 to \$112,141. A selectee assigned under the IPA provisions retains current salary and applicable benefits through the home institution. IPA applicants must be career employees of eligible organizations for at least 90 days prior to entering an assignment. *Certain citizen requirements may have to be met.* Applicants must have a Ph.D. or equivalent professional experience in physics or a closely related field, six or more years of successful research and educational experience, and strong evidence of scholarship in physics or a closely related field. Prior experience in research administration or management is desirable.

Applicants should contact: **Ms. Sybil Smith: Telephone: 703-306-1185, extension 3090 (hearing-impaired individuals may call TDD 703-306-0189)** to request application procedures. Attention: EX00-61.

Formal consideration of applications will commence immediately and will continue until June 15, 2000, or until successful candidates have been identified. *We are particularly interested in attracting qualified women and underrepresented minority candidates to these positions.*

### ASSISTANT/ASSOCIATE FACULTY POSITION DEPARTMENT OF PHARMACODYNAMICS University of Florida College of Pharmacy

The Department of Pharmacodynamics at the University of Florida College of Pharmacy is accepting applications from qualified candidates with interests in neuropharmacology, neuroendocrinology, cardiovascular pharmacology, or toxicology for a 12-month tenure-track faculty position at the level of **ASSISTANT or ASSOCIATE PROFESSOR**.

The successful candidate will (1) possess a Ph.D. degree, (2) have completed at least two years of postdoctoral experience, (3) show evidence of potential for research funding, and (4) have an interest in teaching pharmacology and training graduate students.

Potential collaborations in the Health Science Center include the Brain Institute and research centers in alcohol, diabetes, gene therapy, aging, and toxicology. Candidates with demonstrated experience in teaching and success in acquiring independent funding are especially encouraged to apply. Salary and rank will be commensurate with qualifications and experience.

Applicants should send curriculum vitae, a description of research plans and teaching interests, and names of three references by June 23, 2000, to: **Chair, Search Committee, Department of Pharmacodynamics, Box 100487, University of Florida, Gainesville, FL 32610.**

If applicants need accommodation for this position, please contact: **Committee Chair; Telephone: 352-392-3408.**

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

## POSITIONS OPEN

### PROGRAM DIRECTOR FOR ELEMENTARY PARTICLE PHYSICS

Division of Physics  
National Science Foundation  
Arlington, Virginia 22230

NSF's Division of Physics seeks qualified candidates for the position of Program Director for Elementary Particle Physics within the Division of Physics. The incumbent will provide management and direction to the proposal-driven experimental Elementary Particle Physics Program, which includes support for accelerator- and nonaccelerator-based research in elementary particle physics. The program supports a large number of single investigators and user groups at universities, a large university-based accelerator laboratory (the Cornell Electron-Positron Storage Ring, CESR), and manages the NSF part of the U.S. LHC construction project. The program also has strong efforts aimed at outreach and the integration of research and education at the K-12 level.

Appointment to this position will be on a permanent, temporary, one-to-two-year Visiting Scientist or Intergovernmental Personnel Act (IPA) basis. The salary range for permanent, temporary, or Visiting Scientist positions is \$71,954 to \$112,141. A selectee assigned under the IPA provisions retains current salary and applicable benefits through the home institution. IPA applicants must be career employees of eligible organizations for at least 90 days prior to entering an assignment. *Certain citizen requirements may have to be met.* Applicants must have a Ph.D. or equivalent professional experience in elementary particle physics, six or more years of successful research experience in elementary particle physics (including large project management and/or research administration or management), and strong evidence of scholarship in elementary particle physics.

Applicants should contact: **Ms. Sybil Smith: Telephone: 703-306-1185, extension 3090 (hearing-impaired individuals may call TDD 703-306-0189)** to request application procedures. Attention: EX00-61. Formal consideration of applications will commence immediately and will continue until June 15, 2000, or until successful candidates have been identified. *We are particularly interested in attracting qualified women and underrepresented minority candidates to these positions.*

### PROTEIN PURIFICATION SPECIALIST:

The Midland Certified Reagent Company has an opening for a **PRODUCTION SCIENTIST** to purify DNA and RNA polymerases from natural sources and use these enzymes to prepare DNA and RNA polymers for commercial sales. Qualified applicants should have a Ph.D. in biochemistry, postdoctoral or industrial experience, and familiarity with protein purification techniques. Experience with analytical techniques including enzyme assays, UV-VIS spectroscopy, and electrophoresis is essential for this position. Knowledge of nucleic acid synthesis and applications is a plus. Please send a letter of interest and curriculum vitae including the names of three references to:

**Dr. Arlene J. Hoogewerf, Ph.D.**  
The Midland Certified Reagent Company  
3112-A West Cuthbert Avenue  
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E-mail: [Arlene@oligos.com](mailto:Arlene@oligos.com)

**POSTDOCTORAL POSITIONS** available immediately to study the role of protein-protein interactions in signal transduction. Candidates should have a Ph.D. with a strong background in biochemistry, molecular biology, or molecular genetics. For more information, see website: [www.usouthal.edu/pharmacology/phchinkers.html](http://www.usouthal.edu/pharmacology/phchinkers.html). Please send curriculum vitae with bibliography and the names, addresses, and telephone numbers of three references to: **Michael Chinkers, Ph.D., Department of Pharmacology, University of South Alabama, College of Medicine, MSB3130, Mobile, AL 36688-0002.** E-mail: [michaelc@jaguar1.usouthal.edu](mailto:michaelc@jaguar1.usouthal.edu). *Equal Opportunity Employer.*

## POSITIONS OPEN

### PROGRAM DIRECTOR FOR THEORETICAL PHYSICS

Division of Physics  
National Science Foundation  
Arlington, Virginia 22230

NSF's Division of Physics seeks qualified candidates for the position of Program Director for Theoretical Physics within the Division of Physics. The incumbent will provide management and direction to the proposal-driven Theoretical Nuclear Physics Program and the Mathematical Physics Program. These two programs support a large number of individual investigators and groups engaged in research in the two areas. The integration of research and education at the undergraduate and graduate level is a central objective in all Division of Physics programs. The Division also encourages strong efforts aimed at outreach and the integration of research and education at the K-12 level.

Appointment to this position will be on a one-to-two-year Visiting Scientist, temporary, or Intergovernmental Personnel Act (IPA) basis. The salary range for Visiting Scientist or temporary positions is \$71,954 to \$112,141. A selectee assigned under the IPA provisions retains current salary and applicable benefits through the home institution. IPA applicants must be career employees of eligible organizations for at least 90 days prior to entering an assignment. *Certain citizen requirements may have to be met.* Applicants must have a Ph.D. or equivalent professional experience in theoretical nuclear physics and in mathematical physics, six or more years of successful research in nuclear and mathematical physics, and strong evidence of scholarship in physics. Prior experience in research administration or management is desirable.

Applicants should contact: **Ms. Sybil Smith: Telephone: 703-306-1185, extension 3090 (hearing-impaired individuals may call TDD 703-306-0189)** to request application procedures. Attention: EX00-61.

Formal consideration of applications will commence immediately and will continue until June 15, 2000, or until successful candidates have been identified. *We are particularly interested in attracting qualified women and underrepresented minority candidates to these positions.*

### ASSISTANT PROFESSOR Research

A dynamic laboratory housed in a state-of-the-art research facility is seeking a self-motivated and creative M.D. and/or Ph.D. with expertise in molecular biology and engineering to develop liver and muscle-specific promoter/enhancers for optimal and/or regulated transgene expression *in vivo*. Competitive salary and benefits.

Apply with updated curriculum vitae and bibliography plus three letters of recommendation sent directly to: **Dr. Savio L. C. Woo, Professor and Director, Institute for Gene Therapy and Molecular Medicine, Mount Sinai School of Medicine, One Gustave L. Levy Place, Box 1496, New York, NY 10029.** FAX: 212-849-2572. Website: [www.mssm.edu](http://www.mssm.edu). *We are an Equal Opportunity Employer and foster diversity in the workplace.*

The Molecular Pathology Laboratory, Mount Sinai School of Medicine, New York, has a position available for an **ASSISTANT RESEARCH PROFESSOR**. This laboratory is currently developing a novel DNA amplification technology (*Gene* 211:277-285, 1998) and applying for genetics and cancer diagnosis. Candidate should have a Ph.D. in chemistry or biochemistry with at least two years of postdoctoral experience in nucleic acid techniques. Interested individual should contact: **David Y. Zhang, M.D., Ph.D.; e-mail: [David.Zhang@Mountsinai.org](mailto:David.Zhang@Mountsinai.org).**

## GLOBAL OPPORTUNITIES

### Asan Institute for Life Sciences, Asan Medical Center, Seoul, Korea



The Asan Institute for Life Sciences at the Asan Medical Center is seeking outstanding scientists (MD/PhD/MS) in the following fields:

#### Molecular Profiling of Cancers

- Identification of genetic background and environmental factors leading to cancer
- Identification of gene mutations causing cancer, particularly those common in the Korean population (hepatocellular carcinoma, stomach cancer)
- Determination of central growth pathway of hepatocellular carcinoma and inhibitors of this pathway

#### Multigenic Disorder Research

- Identification of genes and mutations involved in multigenic disorders common in the Korean population (cardiovascular disease, bone diseases, neurological disorders)
- Bioinformatics

#### Stem Cell Research

- Cloning of stem cells, characterization of genes and factors associated with stem cell differentiation, and related mechanisms
- Development of cell and tissue replacement therapies

#### Immunomodulation Research

- Development of concepts and reagents for immune enhancement and suppression
- Clinical application of immunomodulation for prevention of transplant rejection and treatment of infectious diseases, cancers, and autoimmune diseases

#### Scientific Basis for Alternative Medicine

- Investigation of mechanisms of action of Eastern and herbal medicine
- Development of innovative treatments based on fusion of Eastern and Western medicine

The Asan Institute for Life Sciences is a state-of-the-art facility for medical research, with strong academic and collaborative ties to the 2,000-bed Asan Medical Center and University of Ulsan College of Medicine which are all affiliated with the Hyundai group. The Institute is located on the outskirts of Seoul, within half a mile of an Olympic park and a major shopping area. A variety of comfortable homes and apartments are available in the immediate vicinity.

Applications are sought at all levels. Equal consideration will be given to applicants of all nationalities. Please send curriculum vitae, three references (name, address, fax, and email if possible), and a summary of current research and future plans to:

**Byoung S. Kwon, PhD**  
Director, Asan Institute for Life Sciences,  
Asan Medical Center  
388-1 Pungnap-dong, Songpa-gu, Seoul 138-736, Korea  
Tel: 82-2-2224-4101/2

## EUROPEAN OPPORTUNITIES

### Max-Planck-Institut Dortmund



The Max Planck Institute for Molecular Physiology conducts biomedical aimed at understanding the function of cells, tissues, and the human being by detailed knowledge of the structure and function of molecules involved in gene expression, signal transduction and membrane transport. The Department of Epithelial Transport Physiology is currently seeking bright, promising scientists for the following positions and research areas:

**1 junior scientist** working in the area of bioinformatics and functional genomics to study the molecular basis of sodium gradient driven solute transport systems and to apply the knowledge to the development of biomedical microstructure devices.

**1 junior scientist** working in the area of molecular cell biology to investigate sorting and compartmentalization of transporters in epithelial cells.

**1 Post doc** working in the area of protein crystallography and/or two dimensional NMR for studies on the structure function relation in sodium-glucose cotransport systems.

**1 Post doc** working in the area of cell biology and signal transduction for investigations on the molecular nature and regulation of the channels for organic osmolytes activated during cell volume regulation.

**1 Post doc** working in the area of optical techniques to be applied to whole cells for the investigation of temporal-spatial relation in signal transduction.

Junior scientists are expected to have completed a 3 - 5 year period of postdoctoral work in the required area of expertise. The appointment is maximally for 5 years and the salary is according to BAT II a. The position for a technician, one doctoral/postdoctoral position, laboratory space and appropriate funds for research supplies will be provided.

Post Docs are expected to have completed their Ph.D. thesis in the requested area of interest and should have several publications relevant to the field. Their salary consists of a stipend according to the guidelines of the Max Planck Society.

The institute is an equal opportunity employer, disabled applicants will be considered with preference. Female scientists are especially encouraged to apply. Positions will be available starting July 1<sup>st</sup>. Deadline for applications is June 15<sup>th</sup>, they should be forwarded to

**Prof. Dr. Dr. h. c. R. K. H. Kinne**  
Max-Planck-Institut für molekulare Physiologie  
Otto-Hahn-Straße 11  
44227 Dortmund, Germany

For further information see our Webpage or e-mail [rolf.kinne@mpi-do.mpg.de](mailto:rolf.kinne@mpi-do.mpg.de)

## GLOBAL OPPORTUNITIES

# STOP being a CLONE

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### GENOMICS SCIENTISTS

You will be involved in cutting-edge projects and have the opportunity to train abroad for 6-12 months. You should have good language abilities and strong computer skills.

#### A. EXPRESSION LIBRARY TECHNOLOGY

#### B. DNA MICROARRAY SYSTEMS AND GENE EXPRESSION VALIDATION

##### Ph.D. Scientist

You should have a strong background in molecular biology and molecular genetic techniques (cloning, library-screening, sequencing, gene amplification/quantitation) and cell biology. Knowledge of software programs for sequence analysis (Vector NTI, Sequencher), sequence databases (GenBank, TIGR, Protein) and MS Excel will be required. You should also be familiar with robotic assay systems, imaging and have a strong background in statistical analysis.

##### Associate

You should have a strong background in molecular biology and molecular genetic techniques (cloning, library screening, sequencing, gene amplification/quantitation) and cell biology. Experience in assay development, materials tracking, archiving, MS Excel, MS databases and robotic assay systems will be required.

#### C. GENE FUNCTION

##### Ph.D. Scientist

You should have a strong background in cell culture, *in vitro* cell biology techniques, molecular biology, molecular genetic techniques (cloning, sequence analysis, blotting techniques, primer design, gene amplification/quantitation, vectorology) and cell

biology. Knowledge of software programs for sequence analysis (Vector NTI, Sequencher), and sequence databases (GenBank, TIGR, Protein) will be required.

##### Associate

You should have a strong background in cell culture, *in vitro* cell biology, molecular biology, molecular genetic techniques (cloning, sequence analysis, blotting techniques, gene amplification/quantitation) and cell biology. Experience in high- to medium throughput assay development, robotics, materials tracking, archiving, MS Excel and MS databases will be required.

#### D. BIOINFORMATICS

##### Bioinformaticist

You should have a strong background in UNIX, Oracle db development, Visual Basic and MS ASP. Knowledge of molecular or Cell biology with familiarity with heuristics for conducting BLAST searches against public sequence databases, for nucleic acid and protein databases will be required.

To apply, please send us a comprehensive resume, with a recent photograph, detailing your academic qualifications, working experience and names of 2 references by post or fax **336 2503** to:

General Manager  
PharmBio Growth Fund  
250 North Bridge Road, #27-04 Raffles City Tower,  
Singapore 179101

or email to: [irene@edb.gov.sg](mailto:irene@edb.gov.sg)

Closing date : 16 June 2000

Only shortlisted candidates will be notified.

## POSITIONS OPEN

### POSTDOCTORAL FELLOW NUCLEAR RECEPTOR ACTION

A Postdoctoral position is available immediately to undertake an evaluation of the feasibility of targeting nuclear receptor-cofactor interactions for new drug discovery. The successful candidate will (1) use phage display to map protein-protein interaction surfaces on selected nuclear receptors and (2) develop peptide antagonists to evaluate the functional significance of the sites identified and will use appropriately modified peptides/peptidomimetics to regulate receptor function *in vivo*. Applicants with strong backgrounds in transcription, biochemistry, molecular pharmacology, or transgenic animal technology are encouraged to apply.

Those interested should send curriculum vitae and names and addresses of three references to: **Donald P. McDonnell, Ph.D., Department of Pharmacology and Cancer Biology, Duke University Medical Center, Box 3813, Durham, NC 27710. Website: [www.hr.duke.edu](http://www.hr.duke.edu). Duke University is an Equal Opportunity/Affirmative Action Employer.**

### POSTDOCTORAL RESEARCHER BECKMAN LASER INSTITUTE University of California, Irvine

We seek applicants with an interest in using and developing optical techniques to study and perturb dynamic events in the cell. Such techniques are based on confocal and two-photon microscopy, FRET, microinjection, laser scissors, and laser tweezers. Experience in cellular and molecular biology is required. Familiarity with microscopy concepts is desired.

Candidates for this position should hold a Ph.D. (preferably in biology) and should possess the ability to work in an interdisciplinary team setting. Please send curriculum vitae and the names of three references for immediate consideration to: **Vickie LaMorte, Ph.D./Bruce Tromberg, Ph.D., Beckman Laser Institute, University of California, Irvine, CA 92612-1475. University of California, Irvine, is an Equal Opportunity Employer committed to excellence through diversity.**

### POSTDOCTORAL POSITIONS SIGNAL TRANSDUCTION Harvard Medical School/ Massachusetts General Hospital

Positions are available in the laboratory of **Joseph Avruch, M.D., Departments of Medicine and Molecular Biology, now through fall 2000** for recent graduates with strong skills in mammalian molecular biology and/or protein chemistry. Ongoing work involves PI-3 kinase effectors, mTOR signaling, Raf and novel Ras effectors, and stress-activated protein kinase pathways. Prior experience with protein phosphorylation desirable. Outstanding scientific environment. *U.S. citizens or permanent residents only.*

Please send curriculum vitae and the names and addresses of three references to: **Director of Laboratories, Molecular Biology Department, Massachusetts General Hospital, Boston, MA 02114. FAX: 617-726-5649; e-mail: [avruch@helix.mgh.harvard.edu](mailto:avruch@helix.mgh.harvard.edu).**

### POSTDOCTORAL RESEARCHER VETERINARY ANATOMY AND CELL BIOLOGY

Required qualifications: Ph.D. or equivalent degree with major course work in biological and biomedical science; must have laboratory experience and background in molecular and cellular biology. Additional qualifications desired: background in dental research and oral biology. Salary will be commensurate with qualifications and experience. Application deadline is June 16, 2000, or until candidate is selected. Submit letter of application and résumé to: **Gary E. Wise, Ph.D., School of Veterinary Medicine, Department of Veterinary Anatomy and Cell Biology, South Stadium Drive, Louisiana State University, Reference #019352, Baton Rouge, LA 70808.**

*LSU is an Equal Opportunity/Equal Access Employer.*

## POSITIONS OPEN

### POSTDOCTORAL POSITION KIDNEY BIOLOGY AND PATHOBIOLOGY Case Western Reserve University

Applications are invited for positions funded by NIH institutional training grant beginning July 2000. Training faculty will use cell, molecular biological, and genetic techniques to understand normal kidney function and mechanisms of kidney disease. Research interests include identification of nephropathy susceptibility genes, expressing profiling at an RNA and protein level, mechanisms of inflammatory tissue injury, analysis of transcriptional regulation, function of novel kidney ion channels and ion channel modulators, control of protein trafficking, kidney development, mucosal immunity, and gene transfer techniques. Studies use cell culture, animal models, and human investigation. Experience in molecular biology, cell biology, biochemistry, or electrophysiology is desirable. *Must be permanent resident.* Send letter of application, curriculum vitae, and letters of recommendation to: **John R. Sedor, M.D., Division of Nephrology, MetroHealth Medical Center and Arthur M. Brown, M.D., Ph.D., Vice President, Research, MetroHealth Medical Center, Rammelkamp Center for Research, 2500 MetroHealth Drive, Cleveland, OH 44109-1998.**

**FACULTY POSITION:** The University of California, San Francisco Department of Medicine has initiated a search for a Director of the Mt. Zion Inflammatory Bowel Disease Center. The incumbent should have an established research program on the pathogenesis of IBD, with emphasis on mucosal immunology. Appointment as **ASSISTANT or ASSOCIATE PROFESSOR-IN-RESIDENCE** is anticipated, and incumbent will become a member of the Biomedical Sciences graduate program. Candidates should be Board-eligible or Board-certified in gastroenterology and trained in gastrointestinal procedures. Interested individuals should send curriculum vitae to: **D. Montgomery Bissell, M.D., UCSF GI Division, 513 Parnassus Avenue, Room S-357, San Francisco, CA 94143-0538. University of California, San Francisco 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 disabilities, and for Vietnam-era veterans and special disabled veterans.**

### POSTDOCTORAL RESEARCH FELLOWSHIP MELANOCYTE BIOLOGY

Applications are invited for an innovative and motivated scientist to investigate two fundamental properties of melanocyte biology: dendrite formation and melanosome transfer to keratinocytes. The project involves determining the signaling intermediates involved in dendrite extensions and the molecular mediators and regulatory factors involved in melanosome transfer. Excellent experience in the basic biology of melanocytes including signal transduction, gene expression, and cell biology will be provided. Candidates should have a background in cell biology and have a Ph.D. or M.D. Please send curriculum vitae and names and addresses of three references to: **Glynis A. Scott, M.D., University of Rochester School of Medicine and Dentistry, Department of Dermatology, Box 697, 601 Elmwood Avenue, Rochester, NY 14642. E-mail: [Glynis\\_Scott@URMC.ROCHESTER.EDU](mailto:Glynis_Scott@URMC.ROCHESTER.EDU).**

A **POSTDOCTORAL POSITION** is available immediately for a highly motivated and creative individual to pursue studies on the regulation of integrin-dependent migration of breast cancer cells by members of the epidermal growth factor receptor family. Individuals with a Ph.D. and experience in molecular biology, cell biology, and/or biochemistry are particularly encouraged to apply. Interested individuals should send curriculum vitae, a statement of career goals and research interests, and names of three references to: **Yoji Shimizu, Ph.D., Cancer Center, University of Minnesota Medical School, Box 334, Mayo/420 Delaware Street S.E., Minneapolis, MN 55455.**

## POSITIONS OPEN

**POSTDOCTORAL POSITION** in microbial genomics available June 1, 2000. The candidate will have significant responsibility for sequencing and annotating the genome of a microbial pathogen. The candidates should be experienced in informatics (including PHRED and PHRAP), genomics, and molecular biology. The salary will be commensurate with experience, with appointment for two to three years. Send curriculum vitae and three references to: **Dr. Floyd Dewhirst, Department of Molecular Genetics, The Forsyth Institute, 140 The Fenway, Boston, MA 02115. E-mail: [fdewhirst@forsyth.org](mailto:fdewhirst@forsyth.org). Affirmative Action/Equal Opportunity Employer; Minorities/Females/Disabled/Veterans.**

### POSTDOCTORAL POSITION GEORGETOWN UNIVERSITY

Research involves the redox regulation of hepatocyte iNOS gene transcription and characterization of a recently isolated candidate transcription factor. Candidate should have a Ph.D. with experience in molecular biology, cell biology, and/or protein chemistry. Send curriculum vitae and three references to: **Paul Kuo, M.D., Georgetown University Medical Center, 4PHC, 3800 Reservoir Road N.W., Washington, DC 20007. E-mail: [kuop@gunet.georgetown.edu](mailto:kuop@gunet.georgetown.edu).**

### POSTDOCTORAL POSITION

A two-year position is available July 31, 2000, in the laboratory of **Dr. Robert Orlowski, University of North Carolina Lineberger Cancer Center**, to study the impact of certain dietary compounds on apoptosis-associated cellular signal transduction pathways and on the effectiveness of cancer chemotherapy. Prior experience and an interest in signal transduction, apoptosis, and with animal models is preferred. Interested individuals should FAX or e-mail curriculum vitae and supporting documents to: **FAX: 919-966-8212; e-mail: [R.Orlowski@med.unc.edu](mailto:R.Orlowski@med.unc.edu).**

## EUROPEAN OPPORTUNITIES

### CARTILAGE TISSUE ENGINEERING SWITZERLAND

Two **POSTDOCTORAL POSITIONS** are available in the Laboratory for Tissue Engineering at the University of Basel/Kantonsspital, Switzerland. The program addresses the differentiation of human chondro- and osteoprogenitor cells exposed to mechanical forces onto biodegradable scaffolds with the goal of engineering 3-D osteochondral composites for articular cartilage repair. Candidates with a Ph.D. in biological sciences, biomedical engineering, or materials science will be evaluated. One position requires specific expertise in cell culture and cell-biomaterial interaction, the other in histological techniques. In the context of a four-year European grant (SCAF-CART), the selected candidates will have the opportunity to interact with other academic and industrial partners in a highly interdisciplinary environment. Please send curriculum vitae and two reference letters to: **Dr. Ivan Martin, Chirurgische Forschung, Kantonsspital Basel, Hebelstrasse 20, CH 4031 Basel, Switzerland. E-mail: [imartin@uhbs.ch](mailto:imartin@uhbs.ch).**

## CONFERENCES

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## GLOBAL OPPORTUNITIES

### RESEARCH FELLOWS LEVEL B (TWO POSITIONS)

Department of Anatomy  
Monash University, Melbourne, Victoria,  
Australia

Two Research Fellow positions are available for projects within the Monash Renal Health and Disease Research strength program led by **Professors John Bertram** and **Warwick Anderson** in the Departments of Anatomy and Physiology. The research centers on renal development (branching morphogenesis, mesenchymal/epithelial interactions, vascular development) and renal hypertrophy during hypertension and other disease processes. The positions will be part of a multidisciplinary approach to these topics. The Departments contain excellent core facilities for transgenic/knockout mice; cell and tissue culture; imaging (confocal, fluorescence, and electron microscopy); molecular biology; and other laboratory support.

We are looking for two enthusiastic and motivated Researchers with substantial postdoctoral experience and generic skills in molecular/cell biology. The benefits: SA49,366 to SA58,623 per annum. Research Fellow Level B. Duration: 18-month appointment. Location: Clayton Campus, Melbourne. Contact: **Professor John Bertram**; Telephone +61 3 9905 2751 for inquiries and information. E-mail: john.bertram@med.monash.edu.au. Applications: **Professor J. Bertram**, Department of Anatomy, Monash University, Wellington Road, Clayton, Victoria 3800, Australia by June 14, 2000. Quote reference number A001964 and include curriculum vitae and the names (with telephone and FAX numbers) of three references in your application.

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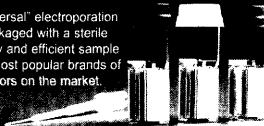
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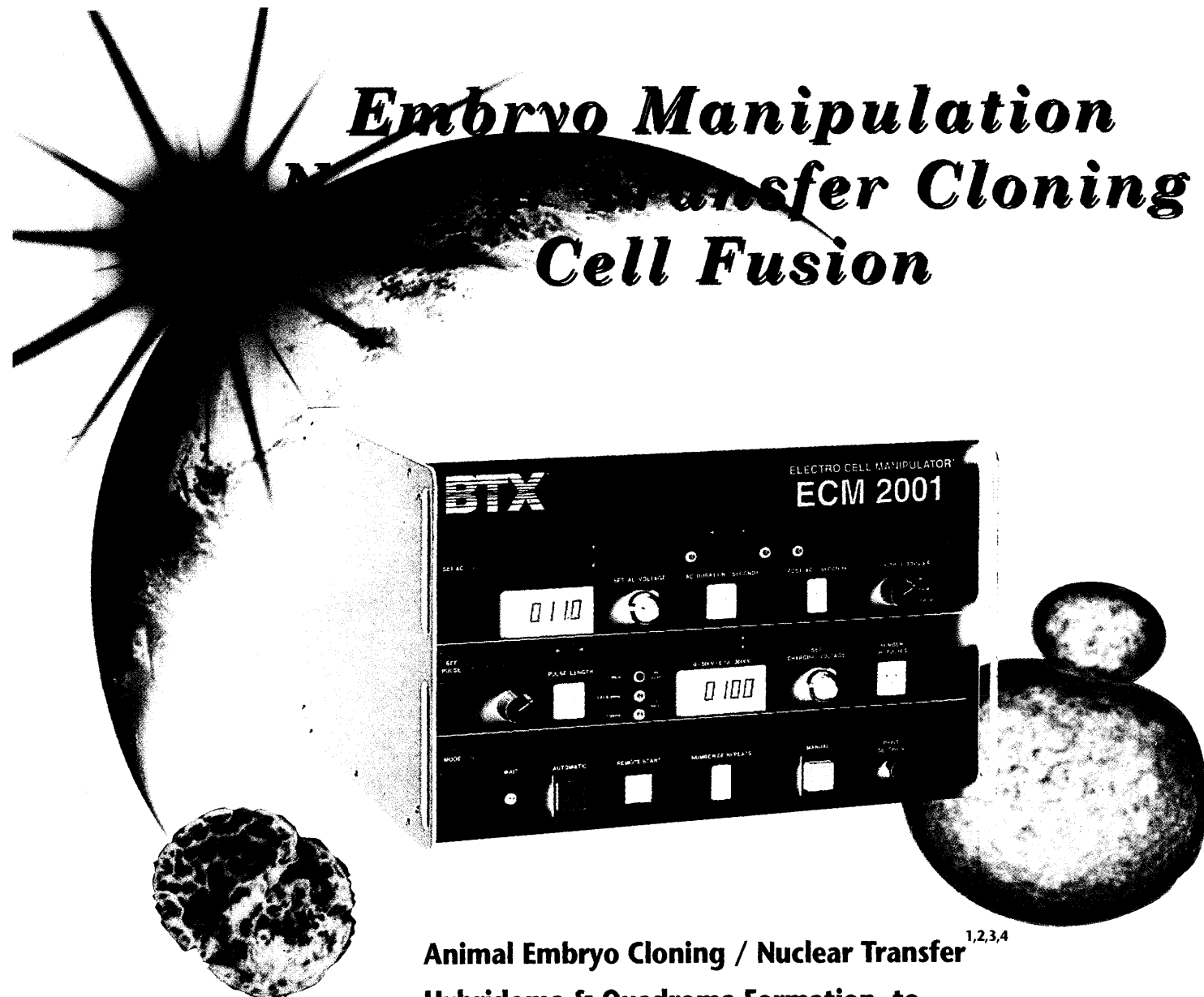
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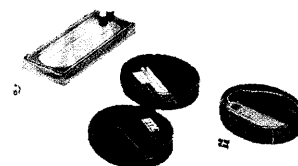
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<sup>1</sup>NATURE BIOTECHNOLOGY, vol. 17: 456-461 (1999). "Production of goats by somatic cell nuclear transfer"; Alex Baguisi, Esmail Behboodi, Eric Overstrom.

<sup>2</sup>BIOLOGY OF REPRODUCTION, vol. 60: 821-827 (1999). "Development of Nuclear Transfer and Parthenogenic Rabbit Embryos Activated with Inositol 1, 4,5-Triphosphate"; SM Mitalipov et al.

<sup>3</sup>BIOLOGY OF REPRODUCTION, vol. 57: 454-459 (1997). "Rhesus Monkeys Produced by Nuclear Transfer"; Li Meng, John J. Ely, Richard L. Stouffer, Don P. Wolf.

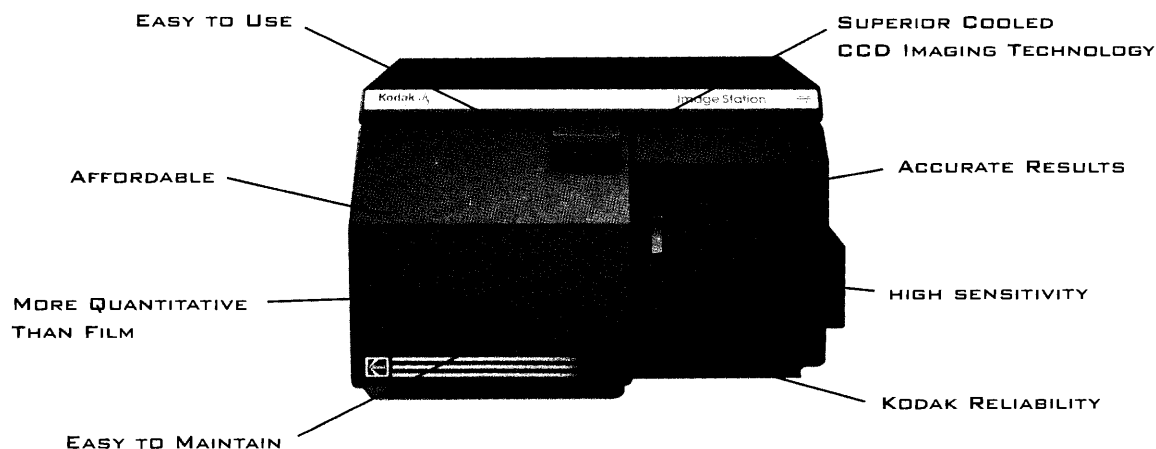
<sup>4</sup>ANALYTICAL BIOCHEMISTRY, vol. 208: 1-9 (1993). "Preparation of Nuclear Transplant Embryos by Electroporation"; Robt. J.M. et al.

<sup>5</sup>HYBRIDOMA, vol. 17, 267-273 (1998). "A New Method to Generate Quadromas by Electrofusion and FACS sorting"; F. T. Kruetz, D. Z. Xu, M. R. Suresh.

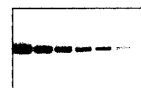
<sup>6</sup>JOURNAL OF IMMUNOLOGICAL METHODS, vol. 187: 1-7, (1995). "A Rapid Non-Selective Method to Generate Quadromas by Microelectrofusion"; Y. Cao, T. Vinayagamoorthy, A.A. Noujaim, M.R. Suresh.

<sup>7</sup>MOLECULAR BIOTECHNOLOGY, vol. 3: 181-189 (1995). "Rapid Optimization of Electroporation Conditions for Plant Cells, Protoplasts, and Pollen"; Saunders J.A. et al

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