

NEW PRODUCTS

iBuild

Acrux Software

Amsterdam, Netherlands
Lite, free of charge; Pro, \$29
downloaded or \$49 on CD-ROM;
Developer, \$199.
Site licenses also available
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www.acruxsoft.com/index.html

that could be accessed via links between cards, much like the links that today's Web browsers use to link pages until it was discontinued by Apple several years ago, the program developed a huge following among Macintosh developers of education software. A new program called iBuild has been released recently that allows users to build "card stacks" similar to those of HyperCard. In addition, iBuild provides powerful presentation and illustration functions, creating a program that combines the best functions of HyperCard with Web links and Microsoft's PowerPoint presentation features.

The prime advantage of iBuild is that users can work in a simple environment to design individual components (cards) of stacks called slides, which can contain text, hyperlinks, QuickTime videos, speech, pictures; over 40 different formats of information can be made into slides. Stacks can function as timed shows; dynamic, user-controlled presentations; or even a testing environment with scoring functions.

Building stacks in iBuild is quite straightforward and is similar to HyperCard in several ways. Users of HyperCard will welcome the many enhancements available in iBuild, including the ability to make links to Web sites and to control the appearance, functions, and actions of objects on slides. The core of iBuild is Apple's powerful scripting language, AppleScript, which permits easy exchange of data and control of external applications, even over a network.

Stacks created by iBuild can be made as stand-alone programs for noncommercial distribution, which allows recipients who do not own iBuild the ability to open files sent to them. A logical direction for the software developer to take with the program would be to enable export of stacks in Java format to allow users to create powerful browser-based stacks for distribution over the Internet. Perhaps this will become available in a future version of the program.

The iBuild software is not without shortcomings. Recent versions of the application have considerably improved its stability in comparison to the initial release, but the program still crashes with annoying frequency. Though it does not take long to master, the program's interface is somewhat clunky and could be improved. Despite iBuild's shortcomings, the program's price is right and it deserves a place on the desktops of Macintosh educational developers everywhere. Different versions of the program are available, including Lite, Pro, and Developer, which vary in the amount of stack-building and distribution options the user is allowed.

—Kevin Ahern

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EDUCATIONAL CONTENT CREATOR

Long before the Internet, there was an innovative (some say revolutionary) software product for the Macintosh that was the first to bring hypertext functions to personal computer users. Called HyperCard, the program permitted users to "build" collections of information in "cards"

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the user to do more than merely visualize and explore data. It provides an efficient way to discover and characterize higher order correlations among objects in a multidimensional dataset. These objects may represent genes and toxicological response outcomes, or they may be chemical descriptors and binding assays. This technique, tied to a powerful machine learning protocol, allows users to take data analysis to the next level: in silico inference and prediction.

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CONTINUED ON PAGE 1490

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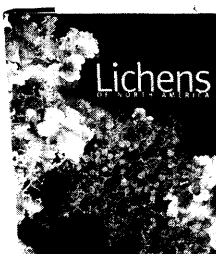
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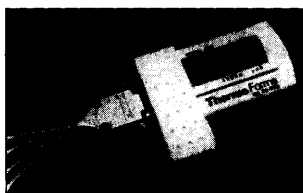
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Mouse Transgenics Opportunity

Research Investigator

In this Research Triangle Park, NC opportunity, you will use your scientific leadership as you work within the Mouse Transgenics Group to develop mouse models of human disease and for the investigation of novel gene function in support of target identification and validation efforts. A Ph.D. in Molecular Biology, Cell Biology, Genetics or related discipline and 2-5 years postdoctoral experience is necessary. Extensive working knowledge of molecular and cell biology and its application to the design, production, and characterization of transgenic mouse models is required (*in vivo* experience preferred), as is a proven record of scientific achievement as evidenced by publications in leading scientific journals. (Req ID: 1919)

Drosophila Genetics Opportunities

The Philadelphia (King of Prussia), PA opportunities offer you the chance to exploit Drosophila as a model organism to identify and characterize the functions of novel genes and their human counterparts. Drosophila genetics will also be used to investigate the mechanisms of action of pharmaceutical agents.

Investigator

In this leadership role, you will work within the Yeast and Invertebrate Genetics Group and act as principal investigator to lead our new initiative in Drosophila functional genomics. A Ph.D. in Genetics or related discipline and 2-5 years postdoctoral experience is necessary. A strong background in classical and recombinant Drosophila genetics is required, as is a proven record of scientific achievement as evidenced by publications in leading scientific journals. GlaxoSmithKline scientists are encouraged to publish their research findings. (Req ID: 1925)

Associate Scientist

A BS/MS in Genetics, Molecular Biology or related discipline is necessary, while 1-5 years of experience in Drosophila genetics is preferred. Strong background in recombinant DNA technology is highly desirable. (Req ID: 1931)

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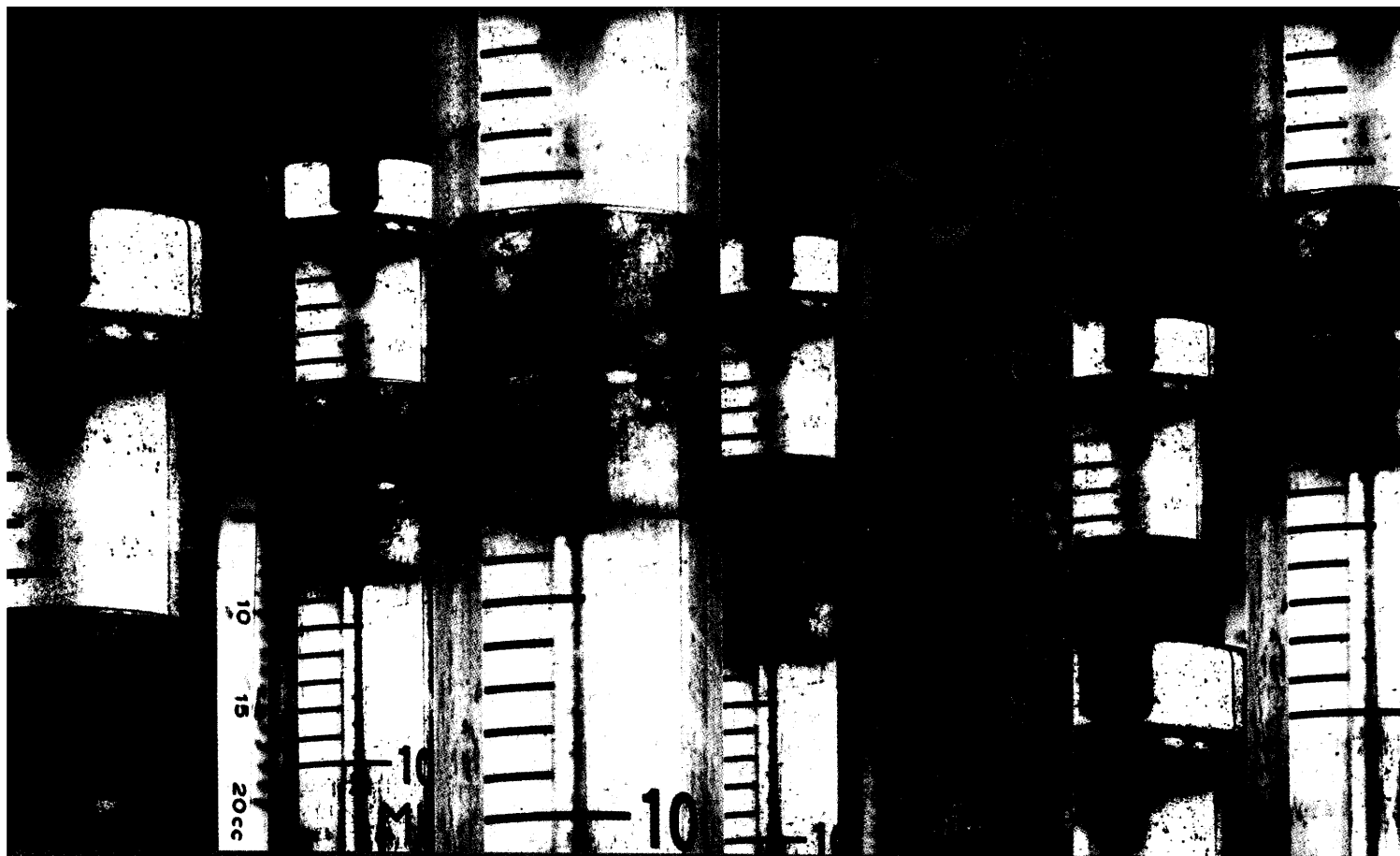
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AT THE BENCH AND BEYOND

As discoveries in the laboratory move toward applications in diagnostics and therapy, biotechnology and pharmaceutical companies seek life scientists to work beyond the research arena. Opportunities beckon in such areas as drug development and production, clinical trials, and regulatory affairs. BY PETER GWYNNE

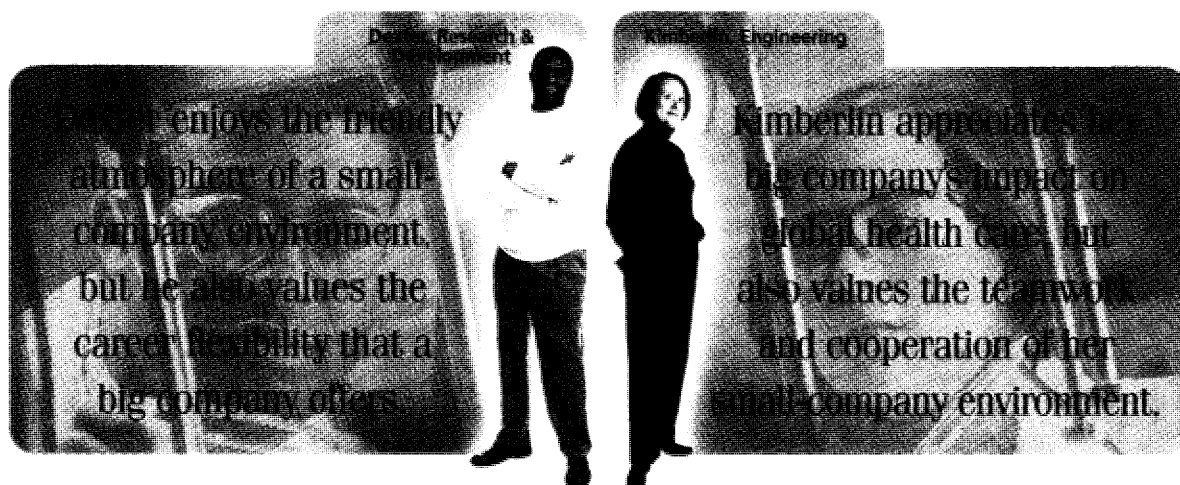
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Today, our aggressive drug discovery efforts continue to expand further through our US-based Cancer Discovery Research, Infection Discovery Research and leading-edge Enabling Science and Technology groups at AstraZeneca R&D Boston. This innovative new facility is home to excellent intellectual, scientific, and technological resources. Our work spans the full spectrum of drug discovery, from exploratory and medicinal chemistry to genomics, helping us to rapidly move from the gene to the clinic with high quality candidate drugs.

As part of the Global Chemistry effort at AstraZeneca, the Waltham Chemistry Community has both senior and entry level positions open in the Infection Discovery Area, the Cancer Discovery Area, and in the Enabling Science and Technology Center.

Our **Cancer Discovery Area** is a rapidly growing group that will strengthen the global AstraZeneca presence in cancer therapeutics. The cancer chemistry group is utilizing leading-edge technologies such as informatics, protein crystallography and NMR, HTS, and combinatorial chemistry to guide drug design in our pursuit of life-enhancing medicines for cancer patients.

Our **Infection Discovery Area** has the mission to discover novel agents for unmet medical needs in bacterial and fungal infection. Employing a genomic, target directed strategy, state-of-the-art technologies (including protein crystallography and NMR, HTS, and combinatorial chemistry) are applied by medicinal chemists to identify and optimize lead compounds.

Our **Drug Metabolism and Pharmacokinetics Areas** have a central role in the discovery of new therapeutic entities. We are now expanding this expertise and are seeking a number of scientists who can contribute to the effectiveness of the group as a key element of Cancer and Infection discovery projects.

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GROUP LEADERS IN CELL BIOLOGY / DRUG METABOLISM / MOLECULAR BIOLOGY

We seek dedicated scientists to fill key leadership roles in our rapidly expanding Biology Department. These group leaders will have significant industrial small molecule discovery experience in their area of expertise and a broad familiarity with other technologies, sciences, and therapeutic areas. Responsibilities include managing day-to-day laboratory operations, recruiting, identifying/evaluating new target and technology opportunities, and taking a leadership role in the creation of intellectual property. Participation in business development, strategic decisions, and design of facilities will be required on occasion. These 'hands-on' positions require strong interpersonal and organizational skills.

- The Cell Biology Group is responsible for the design and execution of cell-based/functional assays, mechanism of action studies, validation of targets, *ex vivo* experiments and identification of new target proteins. Expertise in oncology and/or inflammation is required and experience with 'reverse pharmacology' and animal studies is also desired. (Job Code - BIO-Cell/GL)

- The Drug Metabolism Group is responsible for the design and execution of *in vitro* and *in vivo* PK assays, metabolite profiling, and cytotoxicity screening. This multi-disciplinary group consists of analytical chemists, biochemists, cell biologists and HTS scientists and will be expanding to include pharmacologists. A thorough knowledge of the techniques and principles of all these areas is required. (Job Code - BIO-DM/GL)

- The Molecular Biology Group is responsible for the design and expression of target and related proteins for screening, x-ray crystallography and mechanism of action studies. A broad and deep understanding of recombinant expression systems is required and experience with genomic and proteomic programs is a plus. Additional familiarity with cell-based efficacy, toxicology, and gene expression profiling will also be expected. (Job Code - BIO-M/GL)

PROTEIN CHEMISTS (Job Code - BIO-PRO)

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CELL BIOLOGISTS (Job Code - BIO-Cell/Sci)

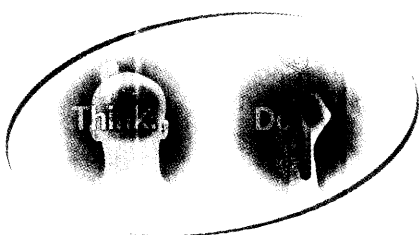
We seek extraordinary scientists with experience in mammalian cell culture, transient and stable cell transfections, and cell-based assays such as cell proliferation, ELISAs, Western analysis, reporter-gene assays and apoptosis assays. The Cell Biology group is responsible for the design and execution of cell-based/functional assays, mechanism of action studies, validation of targets, *ex vivo* experiments and identification of new target proteins. A background in oncology, inflammation and/or immunology as well as experience in an industrial drug discovery environment is a plus.

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Senior Scientists - Oncology Pharmacology

The Oncology Pharmacology Unit is looking for experienced oncologists/ pharmacologists to lead laboratories focusing on animal models of human cancers. Key responsibilities will include development of customized, program-specific models and on broad *in vivo* support for oncology drug discovery programs. This includes compound formulation, preliminary safety evaluation, and assessments of efficacy, PK/PD and *in vivo* proof of concept studies. The candidate will supervise daily activities of a laboratory with 2-4 associates. He/she will closely collaborate/interact with other laboratories within the Pharmacology Unit, and with scientists from the Molecular and Cellular Biology and Medicinal Chemistry Units. The candidate is also expected to make significant contributions to the target selection/evaluation process and to actively participate in at least one drug discovery program according to his/her scientific interest. Presentation of results at meetings and publication in scientific journals is encouraged in our highly stimulating environment.

Requirements include a Ph.D. degree in pharmacology, molecular biology, biochemistry, or equivalent with 2-6 years of industrial experience in Oncology drug discovery. Thorough familiarity and experience with all aspects of animal models of human cancers as well as a strong publication record are essential. The candidate should have a comprehensive, in-depth knowledge of oncology research, particularly related to industrial drug discovery and development. He/she should have a strong background in molecular biology, biochemistry, and a good knowledge of statistics. The candidate is also expected to be highly motivated, to have excellent leadership, communication, and interpersonal skills. Experience leading oncology drug discovery programs and/or supervisory experience is a plus. **Requisition #13010.**

Associate Scientists - Oncology Pharmacology

The successful candidate will work as part of a Pharmacology laboratory team and will also closely interact with a Ph.D. level laboratory Head. He/she will make essential contributions to drug discovery by assisting in development and validation of new animal models of human cancers and in characterization of new drug candidates in these models. This will include compound formulation, preliminary safety evaluation, and assessments of efficacy, PK/PD and *in vivo* proof of concept studies.

Requirements include a B.S./M.S. degree in pharmacology, molecular biology, biochemistry, or equivalent with 2 years of experience in animal models of human diseases preferably in industrial oncology drug discovery. Familiarity with Excel, Word, Power Point, and graphic applications, as well as excellent communication and interpersonal skills are essential. Background in molecular biology, biochemistry, good knowledge of statistics will be a significant plus. **Requisition #13012.**

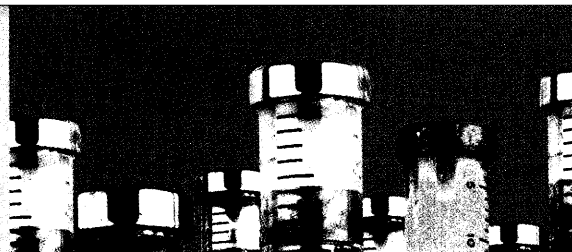
Interested candidates, please apply online for fastest consideration at <http://www.pharma.us.novartis.com/about/careers/jobsearch.html>. Click on the "Novartis Pharmaceuticals Corporation" tab. View our current job opportunities, or if you would like to apply for these specific positions, search by using the five digit Requisition ID and proceed with the application process as instructed. We are an equal opportunity employer M/F/D/V. Principals Only.

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Careers in Biotechnology and Pharmaceuticals

AT THE BENCH AND BEYOND



❖ As they apply the successful sequencing of the human genome to the task of developing a new generation of drugs, biotechnology and pharmaceutical firms offer a rapidly increasing number of career options. Research at the bench remains the most popular option. But biologists, computer scientists, and engineers have plenty of opportunities beyond the laboratory. Companies seek eager, competent individuals for work in bioinformatics, business development, sales and customer support, technical writing, and patent work.

Scientists need more than good degrees to make successful careers in biotech and pharma, both inside and outside the lab. The multidisciplinary nature of industrial work means that individuals must maintain a balance between specific and general understanding of life science. It mandates the ability to collaborate in team enterprises. Scientists must also realize that they will almost certainly not continue to work in the subject in which they trained for more than a few years.

Here we talk to representatives of a business school and eight companies involved in the biotechnology and pharmaceuticals industries. Their main conclusion: Promising careers await life science students with strong academic credentials and the flexibility to operate comfortably outside their original field of training.



JUAN ENRIQUEZ-CABOT

BOSTON, Massachusetts: Juan Enriquez-Cabot views the future of life science and the industries that depend on it from an unusual perspective. His position as director of the Life Sciences Project at Harvard Business School permits him to analyze the field from both academic and business viewpoints. What he sees has convinced him that advances in life science will change everything. "The ability to alter all life forms will have really big implications, not only for pharmaceuticals and biotechnology, but also for life insurance companies, seed companies, chemical companies, energy companies, computer companies, and supermarkets," he says. "We're seeing a change that will become the dominant language of the global economy."

Enriquez-Cabot's views, outlined most recently in a book titled *As The Future Catches You: How Genomics & Other Forces Are Changing Your Life, Work, Health & Wealth* (Random House, October 2001), provide a road map for students pursuing careers in the life science industry. "What a student is educated for today is likely to be relatively obsolete in 10 years," he says. "Life will be one of continuous learning and applications. You're likely to be in a field that didn't even exist 10 years ago." Some life scientists, he adds, have already reacted to the new circumstances by obtaining dual Ph.D.s, undertaking more multidisciplinary work, and involving themselves in mid-career education.

The new order will strongly influence the biotechnology and pharmaceutical industries. "Mathematics becomes more important. So does understanding bioinformatics and informatics in general. Nanotechnology is becoming critical for life science," explains Enriquez-Cabot. "Pharmas don't realize yet that their main competitors may be in the computer business, in agriculture, or in chemicals." In addition, he continues, "There has to be a bridge between pharmas and M.D.s. There will be a need for much more sophisticated counseling, prescribing, and personalized medical treatments. Future jobs will involve the

delivery of prescriptions and services to potential patients."

How should young life scientists prepare themselves for careers in biotechnology or pharmaceuticals? "You can't neglect being very good in a part of your field," advises Enriquez-Cabot. "But in the process you should also be building a series of networks with smart Ph.D.s and professors in areas that may not seem directly relevant to yours."

PRINCETON, New Jersey: Covance is a contract research organization (CRO) that provides drug development services to pharmaceutical and biotechnology companies. The firm has several openings for scientists, primarily in the preclinical laboratories. "They include providers of study services, report coordinators, ana-

lytical chemists, pathologists, and toxicologists in laboratory settings," says president and chief operating officer Joseph Herring. "We're also in the central lab and clinical businesses. But 85 percent to 90 percent of our scientific work is in late discovery or early drug development."

That high percentage stems from a key fact of the pharmaceutical business: The further promising pharmaceutical compounds are developed toward human use, the more expensive the process becomes. Hence, says Herring, "More and more companies are facing the economic reality that requires them to kill unsuccessful drugs more quickly before getting into the big spend in the clinic."

Helping clients to make those decisions requires Covance to bring together scientists trained in several fields. "The core disciplines have been pretty much consistent; they haven't changed in quite a long time," says Herring. "But bioinformatics — extracting data from instruments and animal studies and getting them onto a robust database that links onto a portal where clients can see the data — is an area in which we have been spending a lot of money."



JOSEPH HERRING

What types of scientist does the company hire for bioinformatic tasks? "We've been most successful with a blend of people who have software backgrounds and those from the lab with an interest in software," he says. "It's a matter of assembling teams. In doing so we provide interesting career possibilities for people with classic science backgrounds who have a feel for data; they can combine analytical chemistry and information technology."

Covance also makes significant investment in work on transgenic animals bred for research and discovery. "Molecular biologists and geneticists are playing a larger role for us than they did five years ago," adds Herring. "Immunotoxicology — looking at compounds' genetic and toxicological impact on the immune system — and pharmacology — understanding the efficacy of drugs on animal models — are also becoming more prevalent."

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SENIOR PHARMACOLOGIST - Wallingford, CT

Job Code: S02-0001019

This senior level position will supervise associate scientists and guide drug discovery efforts in the area of Affective Disorders/Psychosis. You must have a Ph.D., 6+ years' post-doctoral or industrial experience, and expertise in the design, execution, and interpretation of receptor binding and cell-based assays, as well as experience with Affective Disorders/Psychosis.

SENIOR BEHAVIORALIST - Wallingford, CT

Job Code: S02-0001020

Play a key role in the Affective Disorders Disease Cluster by being responsible for managing and overseeing all behavioral support. You must have a Ph.D. and 7 years' industrial experience, with considerable experience in the areas of Affective Disorders, behavioral models, and program leadership.

BIOCHEMIST/MOLECULAR VIROLOGIST - Wallingford, CT

Job Code: VIR1

You will be responsible for conducting independent research leading to the development of novel antiviral agents. Candidates must have a Ph.D. in Virology, Biochemistry or Molecular Biology with at least 3 years of drug discovery and/or post-doctoral experience.

ELECTROPHYSIOLOGIST - Wallingford, CT

Job Code: S02-0001018

The selected candidate will provide scientific leadership to drug discovery programs in neurological and/or psychiatric disorders, supervise a lab of scientists conducting electrophysiological studies of neuronal pharmacology and physiology, and contribute to the department's decision making. A Ph.D. with 5 years' experience, as well as practical experience using techniques for studying brain physiology or pharmacology are required.

ASSOCIATE RESEARCH SCIENTIST - Wallingford, CT

New Leads Biology

Job Code: NLB

In this role, you will screen chemical compound libraries for activities in a variety of cell-based assays and maintain a cell line database. Candidates must possess a B.S. or M.S. degree in biological or chemical sciences; knowledge of general cell biology, transfections, developing stable cell lines and basic molecular biology; proficiency in PCR techniques; experience in baculoviral and other viral mediated expression systems; and experience in baculoviral protein expression and production. 0-5+ years' industrial experience, preferably in developing mammalian cell lines, laboratory automation, and scientific databases is desired.

RESEARCH ASSOCIATE - Wallingford, CT

Job Code: VIR2

The successful candidate will work with a multi-disciplinary team to design and conduct antiviral intervention assays and collaborate with other researchers in the discovery and development of novel antiviral agents. A BS/MS with 2-4 years' laboratory research experience is required.

SCIENTIFIC WRITERS • ASSOCIATE DIRECTOR - Lawrenceville, NJ & Wallingford, CT

DIRECTOR OF MEDICAL COMMUNICATIONS - Wallingford, CT

Job Code: KS02-0000022SW-SM

You will author complex regulatory documents (clinical study protocols, clinical study reports, summary documents, Investigator's Brochures), as well as design data displays, document flow, logic and consistency for assigned project prototypes. You will also maintain document prototypes and shells. Candidates must have an advanced degree (Ph.D./MD/Pharm.D) or MS/BS with a minimum of 2 years (MS) to 5 years (BS) of experience in pharmaceutical regulatory documentation, or equivalent. Demonstrated writing skills, the ability to analyze clinical documents/publications, and experience in authoring documents are necessary.

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Global Research & Development

Assistant Scientist I, Crystallography

As a member of our interdisciplinary drug discovery team and working within the protein crystallography group, you will be responsible for the crystallization of biological macromolecules and their complexes with selected ligands. This position requires a BS/MS in Biochemistry or a related field and experience in protein purification and crystallization. **Req. #23Apr0212477**

Associate/Sr. Associate Scientist, Biochemistry

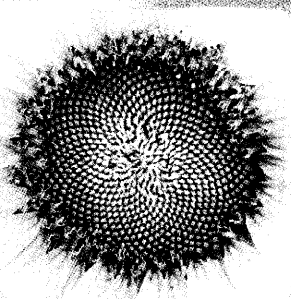
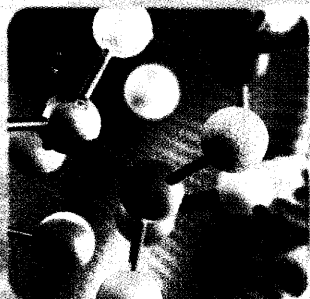
We have an immediate opening for a BS/MS-level Biochemist. Responsibilities include conducting enzyme assays, analytical protein purification and detailed characterization of enzymes. In addition to a BS/MS in Biochemistry or Chemistry, you must have 2+ years of laboratory or industrial experience. Also essential is a strong background in chemistry, math, computer and graphing programs, enzyme kinetics and protein purification/characterization. Senior applicants and candidates with experience in modern liquid handling or assay automation equipment who wish to diversify their biochemistry laboratory experience are encouraged to apply. **Req. #01-0776-5V135CL**

Group Leader, Head of Fermentation

Leading our fermentation facility within the Molecular Biology Department, you will use your extensive knowledge of the baculovirus expression system, expertise in operating bioreactors designed for the growth of *E. coli* and insect cells, and background optimizing the expression of recombinant proteins to train and supervise research associates. This position requires a PhD in Biochemistry, Molecular Biology or a related field and 5 + years industrial experience in large-scale bacterial and insect cell fermentation. The ideal candidate will have a detailed knowledge of database management and fermentation systems for recombinant protein production. **Req. #15Feb021123**

We encourage all applicants to apply by emailing your resume, indicating the appropriate Req. # in the subject field, to SCI@pfizerresumes.com. If necessary, you may also mail your resume, indicating Req. #, to Pfizer Resume Processing Center, 630 Boston Road, M-104, Billerica, MA 01821, Attn: Softshoe Resumes. EOE.

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Postdoctoral Fellowship Biology

Alzheimer's Disease

Focused on potential therapeutics for Alzheimer's disease, you will characterize a novel protein complex, which catalyzes cleavage of membrane proteins. PhD in Cell Biology or Biochemistry and experience in cell culture, protein chemistry and molecular biology required. **Job# 50530070**

Postdoctoral Fellowship Pharmacology

Parkinson's Disease

You will set up animal models of neurodegenerative disorders with an emphasis on Parkinson's disease. Evaluations of transgenic and lesion-based animal models will require behavioral, histological and surgical expertise, along with a PhD in a related field. **Job# 50520064**

Postdoctoral Fellowship Molecular Biology Analgesia Project Team

You will conduct original, publishable research studying the molecular and cellular mechanisms of chronic pain. PhD in Neuroscience, Physiology, Pharmacology or related field with extensive experience in molecular biology required. Knowledge in the area of pain or microarray techniques is a plus. **Job# 50520065**

Associate Scientist/Scientist Immunology Inflammatory Diseases

You'll apply your *in vivo* expertise to the development of innovative animal models and explore the pathogenesis of autoimmune diseases (asthma, rheumatoid arthritis and MS). Your PhD in Immunology, Pharmacology, Physiology, or Neuroscience should be supported by significant postdoctoral experience in animal models of autoimmune diseases. **Job# 51520076**

We also have additional opportunities for Scientists and Associates to join us in Chemical Sciences, Pharmacology, Biology and Research & Development at our South San Francisco facility, as well as other locations in the US and worldwide. Visit our website for details and locations.

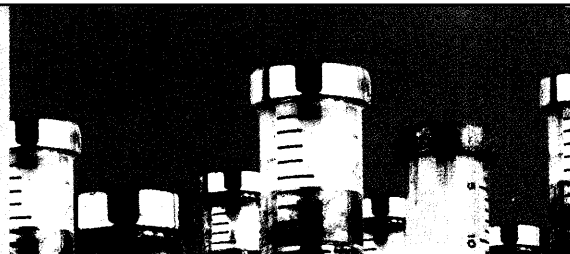
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Careers in Biotechnology and Pharmaceuticals

AT THE BENCH AND BEYOND



Whatever the training of incoming scientists, the company emphasizes 'career expansion.' "You come as a scientist in one field and become a scientist with new disciplines," Herring explains. "One critical area for CROs involves resource planning and resource management. Another area is leadership. People most successful over time in the CRO industry have a combination of good science and good interpersonal skills. We choose from the best of those and invest in their management development."



GREGG MORIN

TORONTO, Ontario: "We're a relatively new company moving into drug discovery with a broad-based technology platform focused on mass spectrometry applied to proteomics," says Gregg Morin, vice president, biology at MDS Proteomics. "All of our bench scientists are in drug discovery, generally focused on identification and early validation of targets. And now we're moving into the later stages of discovery."

To carry out that work the company seeks computational biologists, molecular biologists, cell biologists, and protein chemists. "We are going after senior people first," says Morin. "I envision hiring scientists with five or more years of experience in industry, with a background in handling collaborations and giving presentations. I'll let them hire most of their team. The second wave of hires will be at the Ph.D. level, postdocs, or people with a few years of experience in the industry."

As to specific disciplines, Morin says that MDSP will hire for the need. At present that includes backgrounds in oncology and neural disorders. "We're looking for people with a good understanding of the basic science in those areas," he says. "It's critical for the first people and those coming after them to be well versed."

Morin looks for more than scientific credentials in his hires. "Communications skills and leadership are important," he explains. "Senior level people have to be aggressive without being dominating. They must be able to handle questions in a way that doesn't release inside information. They also need skills in handling teams, which are larger and more advanced than in academe."

Graduates who seek jobs at MDSP should be prepared to prove their research ability in mainstream projects. "If you want to get into industry, doing graduate research on some obscure subject will make it difficult to prove that you can do the job. If I'm looking for scientists who understand signal transduction, people working in mammalian organisms have a leg up," Morin points out. "You should address what industry wants. For example, when hiring computational biologists I need Ph.D.s who understand the drug discovery field and can handle data. I see a lot of people who have moved into computational biology because they have been less successful on the bench. They won't be leaders in the field." Beyond that, he continues, "Make sure in selling yourself to industry that everything you do involves something relevant."

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MICHAEL GILMAN

CAMBRIDGE, Massachusetts: Biotechnology company Biogen has several jobs on offer inside and outside the laboratory. "Within the research organization roughly 20 percent of our scientists are working on development stage programs," says senior vice president of research Michael Gilman. "Active members of project teams get a lot of exposure to clinical trials data and other items that they wouldn't see in graduate school."

Outside research, several Biogen scientists participate in process development. "They work on production processes, purification schemes, assays, and looking for biomarkers," says Gilman. "They use the same types of skill they learned in graduate school but put them to a different kind of use."

Nonscientific skills can also lead to significant roles in the company. "We have a great niche for scientists who are good writers," Gilman says. "We have Ph.D.s who are full-time scientific writers working on reports for the Food and Drug Administration and similar tasks. The people who do the writing need to know the science. Patent law is another area in which people with good technical backgrounds have a real impact. These 'interface' jobs are really among the most interesting in the corporation."

Closer to the bench, Gilman adds, "Biogen is a bit unusual in the pharmaceuticals industry in that we have a very strong biology focus. We tend to hire a lot of scientists with experimental biology backgrounds. Immunology, cancer, fibrosis, and neurodegeneration are the main foci. We have technology centers of excellence in protein chemistry, medicinal chemistry, and bioinformatics. For these we look for scientists with specific sets of skills. But generally we're looking for evidence of real scientific excellence rather than familiarity with any particular problem."

Gilman admits that he has no pat answer when asked to advise students interested in getting into the biotechnology and pharmaceutical industries. "A lot of the hiring is done by word of mouth," he says. "We actually pay a bounty to employees for bringing in new people. So my advice is: Network! When you get in the door, make sure that you have done your homework about the company. Show that you know what the company is about. Then it's a little bit like a dating game. If there's chemistry between you and the hiring manager it will work. I spend more waking time with my co-workers than with my own family." He adds one extra point to remember. "About 98 percent of what I do today," he says, "I was not taught in school."

ABBOTT PARK, Illinois: "We're an organization that's growing and expanding," says John Leonard, vice president of global pharmaceutical development at health care company Abbott Laboratories. "We shoot for R&D growth rates of about 10 percent annually in terms of dollar amounts and head counts."

That growth demands new hires in several disciplines. "We have continuous needs for statisticians, trained physicians, outstanding biologists, pharmacologists, and chemists able to think creatively about linking up the biology with a product that will ultimately become a drug," Leonard says.

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Establish and lead an integrated proteomics project to discover and validate drug discovery targets in the central nervous system. You will exploit our industry-leading technologies, mapping protein-protein interactions and the phosphorylation status of protein networks and cellular states to identify and validate drug discovery opportunities. You should have a PhD and broad experience in the elucidation of protein function and disease processes in neural diseases, and be familiar with neurobiology model systems. Experience in project and people management is required, preferably in an industrial setting.

Director of Computational Biology

Lead a computational biology effort to analyse and integrate proteomic information for the discovery and validation of drug discovery targets. In partnership with our biological and bioinformatic teams, you will develop innovative processes to generate and prioritize hypotheses from our large databases of protein-protein interactions and protein network phosphorylation information. You should have a PhD and research experience in a biological field focused on defining protein function in cell regulatory pathways. Extensive experience in DNA or protein bio-computational analysis, relational database development or management, and knowledge of database query languages are required.

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Senior Research Scientist-Biochemist/Enzymologist

A position is available for a scientist with a strong background in the areas of Biochemistry, Enzymology and/or Protein Chemistry. The successful candidate will provide expertise in protein functional characterization and mechanistic biochemistry. Individuals must possess excellent communication and interpersonal skills to interact with a broad range of biologists and chemists on multidisciplinary drug discovery teams. A PhD in Biochemistry or a related field plus 3 years postdoctoral experience with demonstrated scientific accomplishments is required. Job Code: CG6082RW

Staff Scientist-High Throughput Screening

A position is available in our high throughput screening group for an individual with experience in HTS technologies, biochemical and cell-based assay development, and laboratory management. Responsibilities will include sample library management, assay optimization and implementation, and data management and analysis. We seek an individual with a BS/MS degree who has strong organizational and interpersonal skills, as well as the ability to interact effectively in multidisciplinary scientific teams. Job Code: CG6085YL

Staff Scientist-Molecular and Cellular Biology

Self-starting candidates will provide expertise in molecular & cellular biology on diverse projects involving cloning and expression of recombinant proteins, development of cell-based assays and validation of new protein targets. We seek a motivated individual with a BS/MS degree, excellent communication skills, and at least 2 years of relevant laboratory experience with the ability to plan, conduct and trouble-shoot experiments. A strong background in mammalian cell biology and molecular techniques is essential, and working experience with at least one protein expression system is preferred. Job Code: CG6084TB

Staff Scientists-Protein Chemists/Biochemists

Successful candidates will contribute to drug discovery efforts and active research in our protein chemistry and biochemistry group. Individuals are sought with experience in one or more of the following areas: protein expression and purification, protein functional assay development, analytical biochemistry, enzymology, high-throughput screening, protein-protein interactions. A MS degree in Biochemistry or a related field or a BS degree with 5 years of experience is required. Job Code: CG6083RW

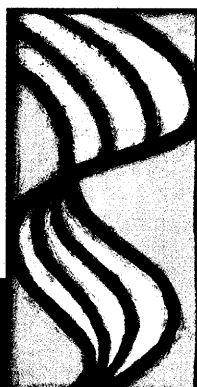
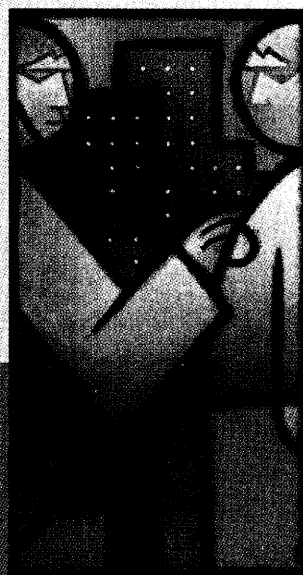
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Commercialization



Molecular Medicine Visualized

Millennium is a biopharmaceutical company creating new therapeutics based on a keen understanding of molecular medicine. With two FDA-approved drugs, INTEGRILIN® and Campath®, an impressive pipeline and 10 products in clinical development, we continue to pursue many thrilling commercialization opportunities in our four franchise areas.

We seek strategic thinkers who can bring new ideas to the table and forever change the future of healthcare. The passionate people we select will be inquisitive, self-directed and highly motivated to ensure our goals and drive our commercial effectiveness, while remaining focused on the customer. Located in the nation's leading biotech hubs, Millennium invites you to join us as we create a new commercial model and make a difference for life!

Cambridge, MA

Our Cambridge team is focused on the commercialization of new products in our Oncology, Inflammation and Metabolic Disease franchises.

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Expression Analysis Operations
Clinical Veterinarian

Director, Clinical Pharmacology Studies (PK/PD)
Sr. Medical Technologist

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Protein Mass Spectrometry
Biological Assay Development
Protein Biochemistry
Peptide Mass Spectrometry

DMPK

Receptor Immunology/Pharmacology
Cancer Pharmacology/*In Vivo* Efficacy
Cancer Pharmacology/Tumor Cell Biology
Pathophysiology/Endocrinology/Type II Diabetes
Computational Biologist, Functional Genomics
Drug Metabolism
CNS Mechanisms/Homeostasis
CNS Disorders/Metabolic Disease

RESEARCH ASSOCIATES

Biological Assay Development

Cell Culture

Mass Spectrometry
DMPK
In Vivo Surgery/Cancer Pharmacology
Xenograft Tumor Models/Cancer Pharmacology

SR. RESEARCH ASSOCIATES/INVESTIGATORS

Quantitative LC/MS
DMPK
Pathophysiology/Animal Models/Type II Diabetes
In Vivo Pharmacology/Inflammatory Models
Metabolic Disease/Animal Surgery

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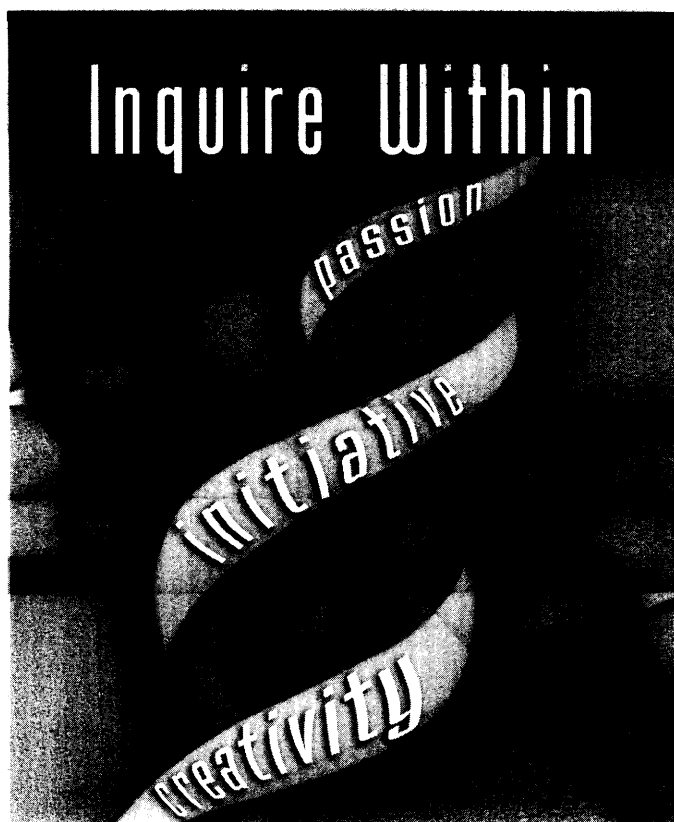
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As one of the nation's most prolific scientific organizations, the Genentech Postdoctoral Program provides a vibrant and intense environment for advanced scientific training. Bringing together more than 50 researchers publishing at a rate of 250 papers a year, the program offers an exceptional range of postdoctoral opportunities. As a program member, you will have the chance to conduct basic research in areas of our scientific interests, publish in scientific journals, and present work at scientific meetings. With close to 3,000 patents and another 2,000 pending, Genentech provides a proven pathway for your career and the means to reach the true beneficiaries of your work.

Immunology

Candidate will investigate TNF super family members and co-stimulatory molecules for their role in immune system and disease processes. Candidate will identify novel molecules and characterize them by using molecular biology and immunology techniques, gene knockout and transgenic approaches, and various disease models (see *Nature* 378: 617, 1995; *Immunology Today* 17: 410, 1996; *Science* 273: 1864, 1996; *J. Exp. Med.* 184: 1963, 1996; *Ann. Rev. Immunol.* 16: 111, 1998; *Nature Medicine* 5: 1313, 1999; *Nature Immunology* 1: 32, 2000; *Nature* 407: 916, 2000; *Immunity* 14: 291, 2001; *Nature Immunology* 2: 577, 2001; *Nature Immunology* 2: 638, 2001; *Current Biology* 11: 1547, 2001; *J. Exp. Med.* 194: 1441-1448, 2001). Requires a PhD/MD or equivalent with a strong background in molecular and cellular immunology. Experience in T cell immunology and animal models of human diseases is an advantage. Job Code: 4241-SCI

To apply for this position, send your resume via email to grewal.igbal@gene.com and macgregor.shannon@gene.com.

Immunology

Working in this laboratory, you will study the role of novel activating and inhibiting receptors in immune homeostasis and disease. Our laboratory has established extensive tools to study the role of these receptors in regulating immune responses of specific immune cell populations upon receptor engagement by monoclonal antibodies or ligands. In addition, this laboratory establishes null mutations in these receptors for the study of their biological role in immune homeostasis and disease. Requires a PhD with a strong background in molecular and cellular immunology. Experience with immunology is desired. Job Code: 4342-SCI

To apply for this position, send your resume via email to vanlookeren.menno@gene.com and macgregor.shannon@gene.com.

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Molecular Oncology

You will define molecular mechanisms of apoptosis induced by deprivation of growth factors and exposure to cytotoxic agents such as chemotherapeutic drugs. Your work will involve the generation and analysis of knockout mice and protein structure-function studies (see *Nature* 388:728-729, 2000; *Science* 277: 815-818, 1997; *Science* 276: 111-113, 1997; *Science* 275:1122-1126, 1997; *Nature* 385: 86-89, 1997; *Science* 281:1305-1308, 1998; *Science* 290:523-527, 2000; *Cell* 103: 99-111, 2000; *Nature Immunology* 2:638-643, 2001). Requires a PhD and demonstrated expertise in biochemistry as evidenced by publications in peer-reviewed journals. You must have excellent communication, interpersonal and organizational skills. Job Code: 4402-SCI

To apply for this position, send your resume via email to dixit.vishva@gene.com and macgregor.shannon@gene.com.

Molecular Oncology

Our Molecular Oncology group is looking for a Postdoctoral candidate to research structure-function studies of ErbB receptor-ligand interactions and their relevance to human cancer. You must have a PhD or MD with experience in molecular biology or biochemistry and possess strong molecular biology skills. Job Code: 4885-SCI

To apply for this position, send your resume via email to sliwkowski.mark@gene.com and macgregor.shannon@gene.com.

Protein Chemistry

Studying the mechanisms of protein folding of molecules of therapeutic interest, this project focuses on folding recombinant proteins produced in bacteria and will use a variety of spectroscopic and physical methods to determine the secondary structure and to follow folding dynamics. Efforts to determine the biological function of these novel proteins will be part of the project. Requires a PhD in Biochemistry, Molecular Biology, Chemistry or related field and experience with protein purification, protein mass spectrometry or spectroscopic techniques. Job Code: 3741-SCI

To apply for this position, send your resume via email to vandlen.richard@gene.com and macgregor.shannon@gene.com.

You can mail your resume/cv to: Genentech, Inc., Attn: Human Resources, PO Box 1950, South San Francisco, CA 94083-1950. Genentech is an Equal Opportunity Employer.

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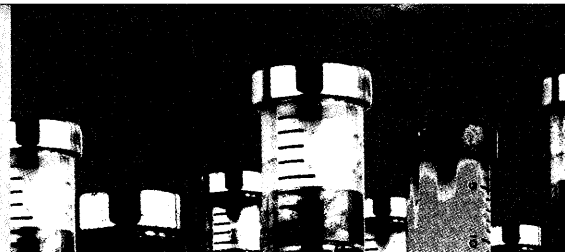
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AT THE BENCH AND BEYOND



Abbott Labs has difficulty finding two types of specialist. "Statisticians are particularly hard to get," Leonard notes. "They need to have trained in math or statistics at the undergraduate level and to have taken a Ph.D. in some form of biostatistics. Also important are pharmacokinetic types who work at the drug level perspective. We want them to synthesize information from small trials into large heterogeneous populations." Why do those scientists have so much importance? "The farther one advances into development, the more the cumulative costs and the rate of spending increase," Leonard points out. "If you can avoid spending on a compound that dies, you permit other compounds that you might have rejected to be considered."

The company hires life scientists at all levels of training. "We have people who range from the Ph.D. level to Bachelor's graduates," Leonard says. "It comes down to the type of work they do and the leadership and type of mentoring that we expect them to have."

Scientists who join the company from academe must be prepared for a different approach to research and development. "There is no project here that a person does by himself or herself," says Leonard. "It's impossible to create what we create without a team of hundreds of people along the way. Collaborative skills are essential to make this work" Abbott also expects new hires to communicate effectively. "We're in the information business," he adds. "We need to describe the chemicals we make in terms of how they work and react. So communication is a requirement."

Leonard's advice for students interested in careers at Abbott Labs: "We want to have intellectually curious people who demonstrate their curiosity in what they do. We look for a sense of aggressiveness. We want optimists who want to take on and solve tough problems. And we want excellent scientists who perform at a high level and want to be surrounded by peers who have very high standards and who can pull their peers along with them."



CRAIG LIDDELL

RESEARCH TRIANGLE PARK, North Carolina:

Integrated life science company Paradigm Genetics develops technologies to speed the discovery of new products in human health and agriculture. The firm employs three general types of scientists. "We have information scientists, including statisticians, bioinformatics specialists, and computational biologists; integrated biologists who are generally biomedical or molecular biology Ph.D.s; and metabolic specialists covering the main focus of our technology — typically chemists, spectroscopists, microscopists, and cheminformatics scientists who run our metabolic profiling platforms," says Craig Liddell, vice president of healthcare technologies.

The company recruits scientists at all levels of training. "We hire Ph.D.s with plenty of experience as well as senior software developers," Liddell continues. "But 60 percent to 70 percent of our staff are associate or assistant scientists with Master's or Bachelor's degrees. They

run instruments, do gene expression work, and handle much of the bench work in all areas of the company."

Liddell has found that individuals trained in computer science reliably make the best bioinformatics personnel. "We have hired a lot of people who have no experience in life science," he says. "They have worked out very well. They bring to the table a rock solid understanding of what is possible and learn life science quickly by mingling with the scientists. It takes one to three years to bring them up to speed on the biology, but then they are extremely valuable. Hires who have come up through the bench have met with mixed success, although the best of this group become the true bioinformatics 'superstars.'"

Paradigm stresses interpersonal skills. "We've almost revised our selection criteria to be less technical and more aimed at those skills," Liddell says. "The ability to work in a team and to interact with peers is very important. Being an effective communicator is much higher on our radar screen than it was."

Liddell has two pieces of advice for young scientists considering careers in the industry. "Get an internship or some sort of summer post at a pharmaceutical or biotechnology company to develop a feel for the culture," he suggests. "And avoid taking a degree in biotechnology or some other synthesized science. Courses can't keep up with the fast changes in the field and you have a relatively weak grounding. I advise taking a Bachelor's degree in biology, chemistry, or computer science and bringing in the integration of disciplines at the graduate or postgraduate degree level."

CAMARILLO, California: BioSource International makes reagents that drug developers and other scientists use for such purposes as genetic screening and probing proteins. "We provide the resources for drug development," says vice president of immunology research and development Kevin Reagan. "We make a lot of assays, custom oligonucleotides, antibodies, and custom peptides."

Custom work has become increasingly important as human genome sequencing has made new series of targets available. "Rather than develop them themselves, companies outsource the work," Reagan notes. "Pharmas need compounds that are destined to fail fast. We develop the assays that help to define target specificity. To do that we are looking generally for scientists with a skill set in biochemistry or immunology."

About 70 percent of BioSource's scientists work in the laboratory. Outside the lab, says Reagan, "We have doctoral level people who are open to business development. They work in marketing, technical services, and sales, dealing with clients at a higher level. They have to know the science. A lot of our business is custom, so they have to grasp what the customers are looking for and convey that to the product development people. We also employ a variety of scientists for external or in-house technical training, technical writing, literature reviews, and preparing technically oriented brochures."

The company offers its recruits a range of opportunities. "When you're talking about a scientific product you're dealing with the development of

ABBOTT BIORESEARCH CENTER

Worcester, MA

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At Abbott Laboratories, each part of the circle depends on the others to achieve results. Abbott Bioresearch Center (ABC), is Abbott's "Center of Excellence in Immunoscience Discovery." Our research mission is to discover new drugs for treating immunological diseases, cancer and transplant rejection, as well as support antibody projects across the Abbott discovery effort. It's an exciting time at ABC. Committed to both scientific expansion and career growth, our employees are the basis of our success. We currently have the following opportunities available:

BIOCHEMISTRY

Senior Scientist - Enzymology

Must possess a Ph.D. in biochemistry, chemistry or related field and expertise in quantitative enzymology, protein purification and assay technology. Experience in database management and associated computer skills are desired. **Keyword: 6880HS**

Research Associates - Pharmacokinetics

Must possess a B.A./B.S. in chemistry, biology or a related science and experience with basic preclinical drug formulation. HPLC and LC/MS experience with strong quantitative skills are desired. **Keyword: 5820HS and 5822HS**

Research Associate - Biochemistry

Must possess a B.S./M.S. in biochemistry, chemistry or molecular biology, with 1+ years of hands-on laboratory experience in protein purification and characterization, including affinity chromatography and basic enzyme kinetics within the pharmaceutical or biotechnology industry environment. Experience in fermentation (coli, yeast, baculovirus, etc.) and protein crystallization is a plus. **Keyword: 4365HS**

Research Associate - Biochemistry

Must possess a B.S./M.S. in biochemistry, chemistry, molecular biology or related field or equivalent experience, experience in protein purification, kinetic and physical characterization of enzymes and knowledge of instrument control and data reduction/presentation software. **Keyword: 8764HS**

Post-Doctoral Fellowship - Biochemistry

Must possess a Ph.D. in protein crystallography, chemistry, biochemistry, physics or molecular biology. Demonstrated hands-on expertise in the production/characterization of protein crystals, collection/processing of X-ray diffraction data, determination/interpretation of protein crystal structures and presentation of results is essential, as are strong analytical and communication skills and experience in simple molecular biology techniques, recombinant protein expression and protein purification. A background in synchrotron data collection and MAD phasing and the willingness to participate in the implementation of robotic technologies are required. **Keyword: 5821HS**

PROCESS SCIENCES

Senior Scientists - Process Sciences

Must possess a Ph.D. in biochemistry or other related life science field, at least 5 years industrial experience in a bio-pharmaceutical environment and knowledge of biochemical or metabolic pathways, protein purification, characterization and process research/development. Experience in chromatography, membrane and other unit operations in biological processing and a basic understanding of GMP practice, process validation and FDA regulatory requirements are essential. **Keyword: 9109HS, 10479HS**

Scientist - Process Sciences

Must possess a Ph.D. in bio-chemistry or other related life science field, up to 2 years industrial experience in a bio-pharmaceutical environment and a basic knowledge of protein purification, characterization and process research/development. Hands-on experience in chromatography, membrane and other unit operations in biological processing and a basic understanding of GMP practice, process validation and FDA regulatory requirements are essential. **Keyword: 10480HS**



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Scientist - Process Sciences

Must possess a Ph.D. in biochemistry, bio-analytical chemistry, biology or related field, experience in bio-analytical techniques including mass spectrometry, peptide mapping, immunoblots and cIEF and up to 3 years industrial or postdoctoral experience. **Keyword: 10175HS, 10634HS**

Scientist - Process Sciences

Must possess a Ph.D. in biochemical engineering or equivalent and 1-3 years experience/expertise in microbial fermentation or mammalian cell culture and process validation. Supervisory experience is desired. **Keyword: 10475 HS**

Principal Engineer - Process Sciences

Must possess a M.S. in biochemical engineering or other advanced degree in a related life science field, 5-10 years industrial experience in a bio-pharmaceutical environment and knowledge of protein purification, characterization and process research/development. Hands-on experience in technical support of chromatography, membrane and other unit operations in biological processing, sufficient understanding of GMP practices, process validation and FDA regulatory requirements, a thorough knowledge of trouble shooting various scale up and manufacturing issues and demonstrated ability to address technical issues related to protein purification, from pilot scale to manufacturing, are essential. Some supervisory responsibility will be involved. **Keyword: 10509 HS**

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Icagen, Inc. is a privately held biopharmaceutical company dedicated to discovering novel therapeutics, which act via ion channel modulation. The Company located in Research Triangle Park, NC integrates a comprehensive human ion channel gene collection with computational chemistry approaches allowing rapid identification of drug candidates. Programs at Icagen include internal discovery projects, collaborations with large pharma, and clinical trials. Several opportunities for exceptional individuals exist to join Icagen Inc.

Head of Molecular Sciences (Job Code: MOBIO51302)

A unique opportunity exists for the right person to lead Icagen's molecular sciences effort related to ion channels. The successful candidate will contribute to key decisions regarding selection and validation of ion channel targets for different therapeutic indications. Broad experience and expertise in gene cloning, expression analysis, vector construction, and mammalian cell expression of ion channels are required along with a comprehensive understanding of ion channel biology. Preference will be given to candidates with experience in technologies that explore ion channel expression and who also have an understanding of the relationship between molecular characterization of channels and drug discovery. Candidates should have a Ph.D. or equivalent and a minimum of 3 years experience following a postdoctoral fellowship. They should have established a high level of recognition in the scientific community and possess excellent communication and team building skills.

Senior Scientist - Electrophysiology (Job Code EP51302)

This position offers the opportunity to play a key role in advancing drug discovery projects. The successful candidate will work closely with the molecular, HTS, chemistry and pharmacology groups to characterize new ion channel targets and identify small molecule modulators of these channels. The position requires a broad-based knowledge of ion channel biophysics and the ability to work with channels from many different gene families. Strong expertise with biophysical analysis, patch-clamp and other electrophysiological techniques are required. Preference will be given to candidates studying ion channels related to pain or inflammation. The candidate should possess excellent verbal/written communication skills and be enthusiastic about working in a team environment. Educational requirements include a Ph.D. or equivalent in the life sciences and 2 or more years of postdoctoral experience.

Scientist - High Throughput Screening (Job Code: HTS5132002)

This position will be involved in the development, preparation and running of cell-based high throughput assays utilizing both fluorescence and isotopic reporter technologies. The ideal candidate will have experience in assay development and a working knowledge of current automation technologies and analysis packages for HTS.

Scientist - Molecular Sciences (Job Code: MOSC5132002)

Candidates for the Molecular Sciences position should be well-versed in general molecular biological and cell biological techniques including cloning, qPCR, vector construction and mammalian cell culture. Preference will be given to candidates having experience with ion channel genes and creation of stable cell lines.

A B.S./M.S. in a life science and 1-2 years laboratory experience, preferably in the pharmaceutical/biotech sector are required for both Scientist positions. Excellent interpersonal and teamwork skills are also essential.

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Please include the appropriate job code with your cover letter or in the subject line of your email. Your CV will not be considered if the job code is not indicated.

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SENIOR DRUG DISCOVERY POSITIONS

PTC Therapeutics, Inc. is a rapidly growing biopharmaceutical company applying integrated RNA biology and chemistry platforms to develop orally active small molecule drugs that modulate post-transcriptional regulatory processes applicable to diverse therapeutic areas including oncology, infectious diseases and genetic disorders. PTC is well funded by premier investors and occupies a 30,000 sq.ft. research facility in South Plainfield, NJ.

VICE PRESIDENT, BIOLOGY

A drug discovery executive to lead a team of approximately 40 scientists. Expertise in discovery and development of small molecule drugs in at least two of our core therapeutic areas: infectious diseases, oncology, inflammation, and genetic disorders. Must have a proven track record of scientific rigor and management excellence. A minimum of 15 years drug discovery experience in a prestigious pharmaceutical or biotech company, history of advancing compounds successfully into clinical development as well as responsibility for the management of a balanced drug discovery/early development portfolio. **Job Code: 05-1001B**

DIRECTOR OF PRE-CLINICAL PHARMACOLOGY

A senior level scientist with 10+ years drug discovery experience in pharmaceutical or biotech environment and a track record of success. The candidate must be an excellent communicator, a team builder and a pragmatic manager able to accomplish goals. **Job Code: 05-1002B**

Scientists and Research Associates: The Pharmacology group will also be hiring Ph.D., M.S. and B.S. level applicants with a strong background in pharmacological profiling, both *in vitro* and *in vivo*. Required expertise includes cytotoxicity, PK, early ADME and small animal models. Candidates will be expected to work in a team environment, in addition to having the ability to work independently. General knowledge of regulatory and GLP guidelines desirable. **Job Code: 05-1003B**

GROUP LEADER OF HIGH THROUGHPUT SCREENING

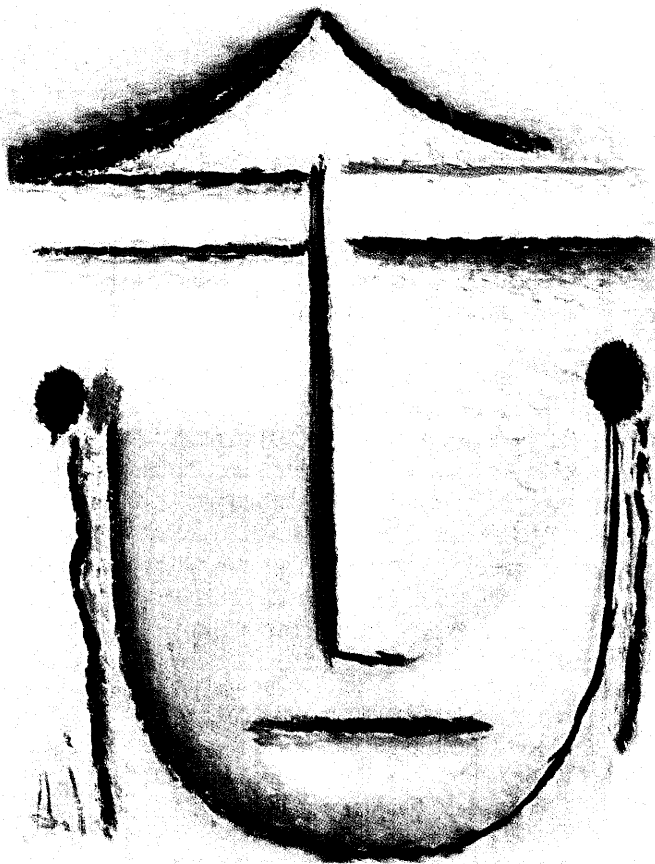
A Group Leader position is available for a scientist with 5+ years experience in HTS assay development and data management. Candidate will work closely with scientists in all therapeutic areas to design and develop assays. Should be a hands-on leader with excellent communication skills and a focus on getting things done. Experience with fluorescence methods and Activity Base required. Familiarity with a variety of automated equipment desirable. **Job Code: 05-1004B**

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Positions available for PH.D., M.S. and B.S. level applicants with expertise in Molecular Biology, Tissue Culture, RNA Translation/Stability and Biochemistry. Candidates must be highly motivated, enthusiastic team players with excellent communication skills. **Job Code: 05-1005B**

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Develop therapeutic antibodies against 7TM and other integral member proteins. This will include developing binding and functional assays for screening and characterization. **Job ID: 153**

SCIENTIST HIGH THROUGHPUT BIOLOGICAL SCREENING

Support the early characterization of proteins being developed for potential therapeutics, using your protein characterization and analytical biochemistry skills. **Job ID: 163**

SCIENTIST PRECLINICAL DISCOVERY

Identify and characterize novel therapeutics and targets from HGS sequence database. **Job ID: 264**

RESEARCH ASSOCIATES FORMULATION & STABILITY

Develop and execute stability protocols to test candidate formulations, including performing stability-indicating chromatography and gel assays. **Job ID: 127**

RESEARCH ASSOCIATES/ SCIENTISTS/SR. SCIENTISTS ANALYTICAL DEVELOPMENT

Develop and validate separation methods (capillary/gel electrophoresis, capillary IEF, ion exchange chromatography, etc.) for product characterization, in-process monitoring and release testing. **Job ID: 265/266/267**

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Careers in Biotechnology and Pharmaceuticals

AT THE BENCH AND BEYOND



the product, the process control, and the transfers from R&D to production and quality control," says Reagan. "All employ science. R&D involves most Ph.D. level people. Process control and production involve non-Ph.D.s. About 15 percent of the working level scientists here have Ph.D.s."

In judging applicants, BioSource seeks a feel for industrial imperatives. "Success is in seeing the product get out the door," Reagan explains. "It takes a certain personality that enjoys the mayhem of changes in product focus and the variety of products to work on. Our assumption is that when you're developing something you'll do it competently. We don't need world-class experts but flexible people skilled in a general series of disciplines and able to apply them – scientists who are literature-savvy and able to use their contacts in academe and elsewhere."

How should young scientists prepare for this type of work? "You have to be flexible," advises Reagan. "You might be hired because you have a series of techniques and a background. But you'll never develop a career studying a single thing. We often turn biochemists into assay developers and immunologists into signal transduction specialists."



GEORGE JACKOWSKI

MISSISSAUGA, Ontario: "We're an R&D company," says George Jackowski, chairman, director, and chief scientific officer of SYN • X Pharma. "A lot of our work is in biochemistry and protein chemistry. About 10 of the 60-odd scientists here are in drug development programs. They validate molecules and look at pathways using bioinformatics. The rest look at the expression of diseases, using mass spectrometry to mine and identify molecules."

SYN • X has a serious need for protein chemists. "They're like hen's teeth – very difficult to find," Jackowski laments. "We have a lot of molecular biologists, but protein work is a different kettle of fish."

Jackowski has one consolation. Increasing numbers of academic scientists have applied for work at SYN • X. "A lot more basic scientists now want to get into applied science," he says.

The company offers several opportunities outside the lab. "We have business development groups who try to cut deals with pharmaceutical companies," Jackowski says. "We are cross-training some of our Ph.D. scientists to go into that area. We market our own products; the Ph.D.s can pitch the science and also the business aspects of products. We've found that having scientists who really want to get involved in the business aspects of the company works very well. We encourage them to obtain business qualifications. We have paid for one to obtain an executive MBA."

When they interview applicants, company recruiters seek evidence of motivation, communication skills, and team orientation. "To identify a lack of team orientation, we look for the words I, I, I in the interviews," Jackowski explains. "We also probe about the candidates' roles in their publications."

Jackowski has this advice for students who seek careers in the biotechnology and pharma businesses. "Publish in good journals. And



for some individuals, think about getting an MBA. Scientists in the past wouldn't have thought of that. But now there are more opportunities to start up on your own or with small companies."

KENILWORTH, New Jersey: The activities of Schering-Plough Research Institute (SPRI) encompass drug discovery, drug development, clinical research, and regulatory affairs. That breadth of operation involves scientific enterprise in several key areas. "In biotechnology, monoclonal antibodies and gene therapy are growing areas," says Mary Ann Fritz, associate director of bioanalytical studies. "Much of our R&D work in biotechnology development requires collaboration between scientists with backgrounds in molecular biology, cell culture, engineering, process development, and bioanalytical sciences," adds Stephen Indelicato, associate director for bioanalytical work. "The analytical techniques we use include cell culture, flow cytometry, PCR, immunoassay, and high throughput liquid handling, to name a few."

The institute seeks scientists for all departments; the type of scientist and level of training depend on the specific department's needs. "We generally seek scientists in chemistry, engineering, or life science disciplines who have work experience in the pharmaceutical or biotechnology industries," says Marvin Bayne, SPRI's vice president of discovery technologies. "Our hiring activity ranges from entry level Ph.D. organic chemists to B.S./M.S. research scientists with two to eight years experience," adds Cheryl Landis, SPRI's director of staffing. "We also recruit B.S. through Ph.D. level analytical chemists with two to 10 years experience and BS/MS scientists with backgrounds in engineering and medical devices."

Like other life science firms, SPRI values versatility. "We seek scientists who are highly collaborative and flexible," says Bayne. "Individual laboratories generally consist of two to three scientists. To reach a critical mass of scientists on a project and reach common research goals, several labs must work closely together. Also, scientists with the capability and willingness to work in more than one area over a period of time – for example, cardiovascular, immunology, or CNS – are highly sought."

Beyond that, he adds, "Scientists should possess certain key competencies. These include verbal and written communication skills, technical skills demonstrating the ability to bridge laboratory science and computer systems, initiative, flexibility, and the ability to work effectively in a team based environment."

How should young scientists prepare for careers in biotechnology and pharmaceuticals? "They should find an area they are interested in, achieve high competency in that area, and be prepared to change career paths. They should choose a school that offers a wide range of choices and consider interning with a biotechnology company," advises Indelicato. "Work on a team that has publications," adds Bayne. "Develop a specific subset of skills that an organization needs and also develop a balance between being a specialist and a generalist. And consider the advantages of a large organization that offers the opportunity to pursue a laboratory career as well as development opportunities in areas such as project management and clinical research." IIII

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

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BIOTECHNOLOGY DEVELOPMENT

Associate Engineer

You will perform development, scale-up and technology transfer of purification processes as well as provide technical support to clinical manufacturing and offshore commercial manufacturing operations. Requires a BS in Biochemical Engineering (or a related field), and 2-4 years of experience or an MS in Biochemical Engineering (or a related field), and 0-2 years of experience in protein purification and characterization. Some travel is necessary. **Job Code: PAD/SCJ/SRI/3622HS**

Principal Engineer

You will lead a team of scientists, engineers and operating staff in the development, scale-up and technology transfer of purification processes as well as provide support to clinical manufacturing and offshore commercial manufacturing operations. A PhD in Biochemical Engineering or a related field and 6+ years of experience in biochemical engineering (fermentation, cell culture and downstream processing) including a background in GMP manufacturing and compliance is required. Knowledge of protein/virus characterization, protein purification and scale-up related principles is necessary as are excellent leadership, managerial and oral/written communications skills.

Job Code: PAD/SCJ/SRI/3612HS

DISCOVERY RESEARCH

Scientist - Cardiovascular Pharmacology

You will implement various state-of-the-art in vivo models to evaluate new drugs. Determine their effects on cardiovascular and/or respiratory functions; acquire data using data collection and telemetric systems for their inclusion in regulatory documents required for initiating clinical investigations; lead investigations; and monitoring outsourced studies of potential development candidates.

BS/MS in General Biology or Life Sciences and up to 8 years of didactic and technical experience with in vivo cardiovascular and/or respiratory pharmacology testing. Surgical skills are essential. Technical ability to identify cardiovascular and respiratory mechanisms using in vitro techniques is desirable. **Job Code: PAD/SCJ/SRI/3355HS**

Research Associate - Electrophysiologist

You will provide cardiovascular pharmacology support for whole cell patch clamp and cellular electrophysiology. You will also conduct and analyze the data from whole cell patch clamp studies and document the studies and maintenance of cell lines used for experiments.

The ideal candidate will possess a BS or MS in Biology, Cell Biology or other Life Sciences and at least 2 years experience with whole cell patch clamp recording. You should also be able to construct voltage protocols and acquire and analyze data using PCLAMP 7 or 8. Cell culture skills are desired as are good verbal and written communication skills and abilities with Excel, MS WORD and Prism.

Job Code: PAD/SCJ/SRI/3462HS

ANALYTICAL DEVELOPMENT

Section Leader - Raw Materials & Packaging

In this vital role, you will supervise a group of 10-15 scientists in one or more of the following activities: testing and methods development for excipients (including CRO oversight), methods development and testing for drug substances, methods development and testing of package component leachables and extractables (including CRO oversight), stability testing and/or preparation of analytical CMC regulatory documents.

To qualify, you must have an MS degree and extensive experience in analytical chemistry, chromatography and methods development, including a background preparing CMC regulatory submissions. Solid knowledge of GMP's and compliance requirements, including the ability to represent the analytical development area in pre-approval inspections and other audits, is essential as are excellent oral/written communication and interpersonal skills. Experience and/or knowledge of leachables and extractables identification, methods development and testing, package component testing, and excipient testing and methods development is desirable. **Job Code: PAD/SCJ/SRI/3275HS**

We offer an excellent compensation package including competitive salary, profit sharing, 401(k) plan, and a cash incentive bonus program. Comprehensive benefits include: group insurance and retirement programs, flexible work arrangements, education assistance, and health and wellness programs.

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Where better to launch a career in Biomedical Sciences than a city that pulsates with life

Singapore is fast building a reputation as a world-class centre for Biomedical Sciences. But another fact that's also attracting attention is its reputation as an exciting and cosmopolitan city. So much so that it has been voted one of the best places in the world to work, play and live.

Encompassing pharmaceuticals, medical technology, biotechnology and healthcare services, Biomedical Sciences has been identified as a priority area for economic development. Singapore is already home to more than 6000 global companies with activities in research, manufacturing and traded services. Its research excellence and strong links to the global community has propelled it to the status as Asia's leading Biomedical Science centre.

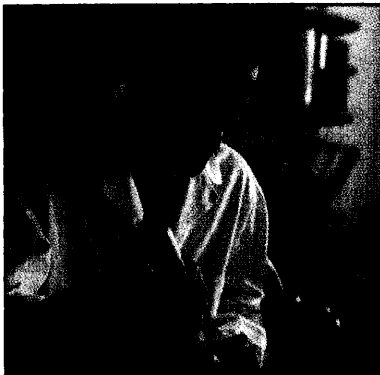
The signs of expansion are taking shape. Capabilities in genomics, bioinformatics and drug discovery are being quickly built up among the research institutions and private enterprises. The upcoming Biopolis, a dedicated biomedical research park, will also present a unique environment for research professionals to interact with the academic community, private enterprises and venture capitalists.

We're looking for people who are seeking challenging opportunities and have what it takes to make a difference to this growing industry in Singapore. For more information on how your career can take off in the right direction, visit <http://www.biomed-singapore.com> or head over to the Singapore Pavilion, Booth 202 at BIO 2002 at the Metro Toronto Convention Centre, June 9 – 12.



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Drug discovery for tropical diseases



Director

Novartis Institute for Tropical Diseases (NITD)
Singapore

The Mission of the Novartis Institute for Tropical Diseases is to discover novel treatments and prevention methods in respect of major tropical diseases. In certain countries where the diseases are endemic, the Novartis Group intends to make treatments readily available and without profit. The discovery technology is state-of-the-art and the scope of activities range from target discovery through to screen development and compound optimisation. The Institute is currently looking to recruit the best scientists in the world who share our belief that we can make a difference.

The successful candidate will have a PhD in Biology or MD and several years' experience in the infectious disease area. A proven record in infectious disease research is essential, preferably tuberculosis or dengue fever. The candidate must be internationally well recognised in the field and will most probably be currently running a substantial academic laboratory. Alternatively, the candidate may have 10+ years' experience in managing anti-infectives research in the pharmaceutical industry. The candidate's publication record will be a major indicator of his/her past and present research standing.

Your main responsibilities will be to:

- Plan and manage all research activities at NITD.
- Provide knowledge and insight to the research team at NITD.
- Ensure a steady flow of compounds for product development.
- Ensure adequate support from locally and globally managed services and support functions.
- Bring adequate support for external collaboration.
- Ensure data quality and adequate archiving and information protection according to global research standards.
- Manage NITD staff and material resources efficiently in accordance with agreed strategy.
- Ensure implementation and adherence to local and global standards and regulations (e.g. safety, ecology, animal welfare, information security).

Competitive salary and benefits will be provided.

For more details and to apply, please visit our careers website www.novartis.com/careers quoting job ID14467. For further assistance on how to apply online, please call +41 61 324 41 48.

www.novartis.com

Lilly Systems Biology Singapore



Lilly is a leading, innovation-driven corporation employing more than 41,000 employees worldwide. We know that the best way to find the next generation of drugs is to use the next generation technologies. And at Lilly Systems Biology, we are doing just that. Here, at our new, state of the art research center in Singapore you'll have the opportunity to apply your knowledge of life science to the Bioinformatics field. As part of the senior management team we are currently looking for a

DIRECTOR BIOINFORMATICS

- Lead the Bioinformatics group at Lilly Systems Biology. Provide scientific leadership.
- Define strategy together with other members of the Lilly Systems Biology leadership team and ensure that the Bioinformatics group delivers on this strategy.
- Responsible for overall design and development of novel algorithms based on biological models of gene expression using mathematical, statistical, and other scientific methods, models and theories.
- Responsible for development of improved methods for access, analysis and integration of gene expression, proteomics, pathways, and other biological data on a variety of platforms (UNIX, PC).
- Build and train a world-class group.
- Must be willing to collaborate strongly with leaders at Lilly Systems Biology as well as groups in Indianapolis to develop and provide an integrated Bioinformatics platform that can then accelerate the drug discovery and development process.
- Ensure integration of the group into the overall Lilly worldwide Bioinformatics effort.

Requirements:

- PhD in Bioinformatics or PhD in Biology and Computer Science or PhD in Biology and demonstrated knowledge in Computer Science required. Candidate with additional knowledge in other scientific areas is preferable.
- At least 5-10 years experience in Bioinformatics, of which at least 3 years experience in the pharmaceutical industry.
- Demonstrated experience in building models related to biological processes.
- Proven track record in algorithm and software development.
- Several years of leadership/management experience with direct reports.
- Willingness to relocate to Singapore.

We are an equal opportunity employer who recruits, hires, trains and promotes persons in all jobs without regard to race, color, religion, national origin, age, disability, or veteran status.

Are you ready to build the future? Apply on-line at: LSB_Recruitment_SG@Lilly.com. Please refer to code ADDIRSCI when applying on-line.

For other positions available at Lilly Systems Biology in Singapore please visit our corporate wide careers web-site: www.lilly.com/careers. When applying on-line for one of these positions, please refer to code ADSCIEDB.

Athersys, Inc.

Athersys, Inc. is a U.S. based biopharmaceutical company engaged in the identification, development and commercialization of therapeutic products that extend and enhance human life.

Athersys currently seeks an individual to assist in the application of its platform technology, RAGE™ or Random Activation of Gene Expression, as the Scientific Director to oversee all operational aspects of a wholly owned subsidiary of Athersys to be located in Singapore.

SCIENTIFIC DIRECTOR

- Responsible for assembling and directing a group of researchers dedicated to discover proteins and drug targets implicated in specific biological processes or disease states that are over-represented in Asian populations.
- Establish research collaborations with leading scientific experts located in Singapore.
- Apply the RAGE™ technology to establish and validate a panel of RAGE cell lines expressing a defined set of small molecule drug targets.

Requirements

- Qualified candidate should hold a Ph.D. in Cell Biology or Pharmacology.
- At least 10 years of industry experience (preferably 15 or more years) working in all aspects of small molecule drug discovery, including high-throughput screening.
- Possess extensive experience managing a large research group.

This position will be located in Singapore.

Send Resume/CV to:

Athersys, Inc.
Attn: Employment #010-2500
3201 Carnegie Avenue
Cleveland, OH 44115
U.S.A.
or
jobs@athersys.com
or
Fax to 216-361-9596



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The Bioinformatics Institute



Bioinformatics
Institute

The Bioinformatics Institute (www.bii-sg.org) is a research and training organisation set up as part of a national initiative to advance biomedical research and development in Singapore. In partnership with institutions of higher education in Singapore, we will be involved in postgraduate training in both fundamental and applied areas in biomedicine.

We invite applications from talented and highly motivated candidates to join us in building a center of excellence for research and teaching in biomedicine. Candidates should have excellent communication skills and a collaborative attitude to working in a multidisciplinary environment.

Your research focus should be in the following areas:

1. All aspects of computational biology
2. Genetics (statistical and population)
3. Medical informatics (especially biomedical imaging)
4. Systems biology
5. Mathematical and theoretical biology
6. Computer/computational science (especially in high performance computing applied to biomedical problems)
7. Distributed/grid computing (massive data storage and management, large scale cluster computing, computer security, code optimisation etc.)

Advantages of the appointments include opportunities for career advancement, fully funded research programs, collaborations and overseas conference travel, and excellent computing facilities. Senior level positions will come with significant resources to accomplish project goals. In addition, an extremely attractive and competitive remuneration package is offered to all appointments.

We have openings at various levels for the following:

1. **Research Programmers**
2. **Postdoctoral Research Fellows**
3. **Senior Investigators**

In addition, Senior Investigators from academia within and outside Singapore, wishing to spend a month to one year at the BII to establish research/teaching collaborations or a sabbatical are welcome to apply for the Visiting Fellowship program. Selected individuals will receive salary and living subsidies. Preference will be given to those scientists with skills or projects complementary to the needs of the institute or to those who can participate in an ongoing BII program.

Senior post-doctoral fellows in the fields of computational biology, genetics, medical informatics, biomedical computing, mathematics/biostatistics, and computer/computational science, interested in refocusing their careers in genomics are eligible for a three-year transition research fellowship program. Qualified candidates will explore biomedical-computing applications in a mentored, semi-independent, and team-intensive environment functioning as a Young Investigator.

Appointments will be based on domain expertise, experience, track record and project focus.

All applicants are required to submit the following:

- A cover letter stating post applied for
- A curriculum vitae
- A one/two page statement of research accomplishment and research goals (if applicable)
- A one/two page statement of teaching interests (if applicable)
- A list of publications
- A list of names and contact information for three professional references (if applicable)

Applicants are encouraged to submit their applications via email to hr@bii-sg.org

Informal enquiries can be made to Ms. Tay Wui Leng (hr@bii-sg.org) or the Acting Director, Dr. Guna Rajagopal (guna@bii-sg.org). Additional information about the BII can be found at our web site: www.bii-sg.org

Institute of Molecular & Cell Biology, Singapore

The Institute of Molecular and Cell Biology (IMCB), Singapore, is carrying out basic research in the following areas: signal transduction; cell movement, adhesion & differentiation; protein trafficking & polarity; DNA repair & carcinogenesis; apoptosis; immunology; papillomavirus; hepatitis & cancer; Fugu; Drosophila neurobiology; yeast genetics & cell cycle; tuberculosis; fungal pathogenesis; and functional proteomics (see <http://www.imcb.nus.edu.sg/annrpt/contents.html>).

We are now inviting applications from talented postdoctoral scientists to join our research programs in any of the above areas.

Applicants should have an international publication record. Advantages of the appointment include excellent opportunities for career advancement, fully funded research programs, paid overseas conference travel, and superb laboratory and computing facilities.

Contracts are for up to three years in the first instance. An attractive and competitive remuneration package is offered, depending on peer-reviewed international publications and experience. The package includes a generous housing subsidy, a settling-in allowance and a gratuity payment on completion of the contract for expatriates.

For more detailed information about the IMCB, **visit our web site at www.imcb.nus.edu.sg, fax or e-mail your CV, together with the names and contact details of four referees, to:**

Postdoctoral Committee
Institute of Molecular and Cell Biology
An A*STAR institute affiliated to
The National University of Singapore
30 Medical Drive
Singapore 117609

Fax: (65) 6779-1117
e-mail: recruit@imcb.nus.edu.sg

Bioprocessing Technology Centre



BTC is a national R&D centre focused on developing bioprocess capabilities to support the growth of a vibrant biotechnology industry in Singapore. We are gearing up to become an institute in 2003 and are looking for Scientists with relevant R&D/industry experience, strong leadership qualities and good communication skills, to join our team in the following areas:

1) Technology Development

- Microbial fermentation
- Cell culture
- Protein purification and characterisation
- Expression technology
- Proteomics

2) Biopharmaceutical Manufacturing Technology

- Group leader (Bioreactor)
- Cell Culture Scientist (Bioreactor)
- Protein Purification and Scale-Up Scientist

Applicants should possess a PhD or equivalent in chemical or biochemical engineering, biochemistry, microbiology, cell/molecular biology and have knowledge and understanding of cGMPs in industrial biotechnology environment (for the Biopharmaceutical positions). An attractive remuneration package will be offered, which will commensurate with qualifications and experience. Applicants should send their detailed curriculum vitae, as well as names and addresses of three referees to:

The Director
Bioprocessing Technology Centre
The National University of Singapore
Clinical Research Centre (MD 11) Level 5
10 Medical Drive
Singapore 117597

Fax: (65) 6775-4933, E-mail: btcadmin@nus.edu.sg
Website: <http://www.eng.nus.edu.sg/btc>

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"Built on world-class research by legendary people, DNAX is leveraging our legacy of excellence and redefining our purpose as an innovative drug discovery enterprise. Our rich history and distinguished reputation for basic research in the fields of immunology and oncology serve as the fulcrum to our exciting future as we translate high quality science into innovative medicines."

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President & CEO

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www.dnaxresearch.com



VIRGINIA BIOINFORMATICS INSTITUTE

PROTEOMICS / MASS SPECTROMETRY

Candidate must have Ph.D. (1-4 yrs exp) or M.S. (5-8 yrs exp) in chem, biochem or rel field with expertise in LC-MS/MS, exp in proteomics and good communication skills. Demonstrated abilities include microscale chemical manipulation of peptides and proteins, exp in capLC-MS/MS and analysis of proteins from high res protein separations is required. Responsible for operation and maintenance of analytical instrum (HPLC, autosampler, MS), development of low flow methods for protein characterization, application of nano-flow/spray techniques, incorporate current methods to enrich/improve detection for low abundance proteins and their modifications, perform db searches, mgmt of raw data and search results; keeping good laboratory records. Ability to train users and interpret MS data is essential. A working knowledge of 2D gels, enzymatic digestion, separation techniques, MALDI-TOF and lab automation is a plus.

PROTEOMICS / PROFESSOR - PI

A number of positions are available. Ph.D. required.

Salary based on relevant exp and education. Qualified candidates should send CV and contact details including phone number and e-mail of three refs to: **Debi Darnell, Virginia Bioinformatics Institute, 1880 Pratt Drive, Building XV, Blacksburg, VA 24061. E-mail: ddarnell@vt.edu**

Visit our website at: www.vbi.vt.edu

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Proteomics

Associate Scientist/Investigator

Chemistry

Analytical/Physical Chemistry

Investigator/Staff Investigator

Molecular Modeling

Applications Modeling

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Staff Investigator

Pharmacokinetics

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Investigator

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Torrey Mesa Research Institute, a research institute of Syngenta Research & Technology, is one of the largest, single, fully-funded research endeavors dedicated to agricultural genomics, consumer health, and post-genomics technology. As an innovative and team-oriented company, we develop and apply cutting-edge biotechnology to match genes with traits for improved agribusiness products, including consumer and animal health products. We currently seek the following talented individuals:

Staff Scientist Assay Development and Drug Discovery

This highly motivated individual will be responsible for the development and implementation of high-throughput assays to identify small molecules that modulate signal transduction pathways. In addition, as a member of an interdisciplinary project team, this individual will also review and interpret expression data to aid in the discovery of novel targets. Requires a Ph.D. and at least 3 years' experience in assay development/high-throughput screening. Experience working within a workstations environment with robotic platforms is desirable. **Job Code: SS/KKAM-SCI**

Staff Scientist Proteomics and Metabolomics

The successful candidate will be part of an interdisciplinary team, which will use proteomic techniques along the lines of *Nat Biotechnol*, 19, 242 to discover novel drug targets. Requires a Ph.D. with at least 2 years' experience. The candidate will have a strong background in mammalian tissue culture and cell line maintenance. Experience in protein purification with an emphasis in tissue dissection, organelle separation/purification and membrane protein extraction are highly desirable. The individual will be able to learn the latest techniques in proteomics for analysis in mammalian systems. **Job Code: SS/DSCH-SCI**

Associate Scientist/Staff Scientist Genome Technology

We are looking for a highly motivated Scientist to apply their skills to our rice functional genomics project. Selected candidate will contribute to our team to utilize our proprietary rice genomic sequence to establish regulatory networks controlling traits of value, clone regulatory gene cDNAs, prepare constructs for plant transformation and assist in identifying and characterizing proteins that bind to cis elements identified in our bioinformatics effort. We aim to use this information to identify gene leads for our company wide functional genomics effort for the production of economically important new plant varieties. This position requires a Ph.D. in Biochemistry or Molecular Biology or an MS in Biochemistry or Molecular Biology with at least 5 years' related experience. Candidates should also have demonstrated experience in core molecular biology skills including DNA and RNA extraction and purification, gel electrophoresis, plasmid construction, PCR and recombinant protein expression and purification. Plant Molecular Biology experience is desired but not necessary. Excellent team and communication skills are essential. **Job Code: AS/POE-SCI**

TMRI offers excellent compensation and a great benefits package, including 401(k) with match and immediate vesting. For confidential consideration, please send cover letter indicating position of interest and resume including salary history and expectations to:
Torrey Mesa Research Institute, Attn: Job Code: _____,
3115 Merryfield Row, San Diego, CA 92121-1102.
Fax: (858) 812-1096. EOE

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Senior Research Scientist

(Req. Code: 02-0001375)

We are looking for a scientist to be responsible for designing and executing research activities requiring a strong background in immunology and in-depth knowledge of lymphocyte interactions and antigen presentation. Combined knowledge and expertise in human and rodent hybridoma technologies required. Candidates will be responsible for development of all employees within the department by supporting the development of Human Resources Planning (HRP) programs including management development and training to meet current and future business needs. You will provide an environment which encourages the company's commitment to equal employment opportunity and the value of a diverse work force. The successful candidate will have 4-5 years of experience with Ph.D. or equivalent, or 10+ years' with MS. Will direct and manage the activities of at least 4 scientists; managerial, radioactivity and biohazard training experience desirable.

Senior Associate Scientist/Research Scientist

(Req. Code: 02-0001386)

You will develop and evaluate expression systems for monoclonal antibody production primarily in mammalian cell culture; optimize expression plasmids through vector construction, cloning, and mutagenesis; clone desired antibody and reporter genes or cDNAs into expression vectors; and transfect expression clones into target cells (primarily mammalian but also possibly insect, bacterial or yeast), select for stable expression, and optimize expression. You will evaluate site - specific recombination, gene targeting, amplification and other methods. Candidates will measure yield and activity of antibody/reporter, as well as perform expression bottleneck analysis, including: characterization of integration site, comparison of RNA expression; protein expression, folding, secretion and activity.

The qualified candidate will have an MS degree. Ph.D. degree preferred but not essential. 5-10 years of experience after MS, up to 2 years of experience after Ph.D., or equivalent required. Should have significant experience with recombinant DNA, mammalian protein expression optimization, and cell biology methods.

Find more. Visit www.jnj.com/careers for more information or to forward your resume. Please reference company and requisition code with all specific applications.

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Ph.D. or the equivalent in a relevant field

Cell Logic, Inc. is a dynamic young company with several job openings for qualified candidates. We are in a growth mode and believe talented scientists will find working with our team an exciting and challenging opportunity.

Our financing is from highly regarded venture capitalists, and our executive management team has experience growing young biotech companies. Our Founders and SAB include top scientists in such fields as genomics, developmental biology, and cell biology. We offer a competitive salary, equity participation in the form of a generous stock option plan, and have a full package of benefits including health insurance and a 401K plan. Our location is in the heart of the I-270 corridor of Montgomery County, Maryland, in an area well known for supporting biotechnology companies as well as being a great place to live.

We are seeking individuals to play key roles in the early development stages of a program to identify molecular targets and innovative approaches in the development of novel therapies utilizing stem cell related factors, as well as the identification of factors influencing stem cell differentiation. It is essential that candidates are self-motivated, productive, possess the ability to work in a team environment, and have excellent computer and communication skills.

Candidates should possess a Ph.D. or the equivalent in a relevant field; have at least 2 years post-Ph.D. experience in stem cell biology or in molecular biology/biochemistry; and have extensive experience in experimental design, analysis, and supervision.

Applicants should include cover letter or email referencing this ad, CV, 3 professional references that can be contacted upon receipt of CV, and job experience including salary history. Individuals with no prior biotech/pharma experience may list education related references.

Send to hr-dept@cell-logic.com

- or to -

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Human Resources Department
9700 Great Seneca Highway
Rockville, MD 20850

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BIOTECHNOLOGY



Medarex, Inc., is a biopharmaceutical company developing monoclonal antibody-based therapeutics to fight cancer and other life-threatening and debilitating diseases. We have assembled a broad platform of patented technologies for fully human antibody discovery and development. Additionally, Medarex produces antibody products for our own use and for our partners in a state-of-the-art cGMP development and manufacturing facility. By coupling our fully human antibody development and manufacturing capabilities with our aggressive business and partnering strategies, Medarex believes it has established a leading position in therapeutic antibody development with the potential to bring important antibody therapeutics to patients worldwide.

Medarex is expanding its R&D programs at our state-of-the-art facility located in the heart of Silicon Valley. Opportunities are available for people who thrive working in an energized, creative, team-oriented environment. We are looking for highly motivated individuals to fill these positions that bring diverse perspectives to work toward our common objectives. We recognize success and provide opportunities for professional development to employees that make a difference.

We have the following opportunities available at our Milpitas, California facility:

Manager/Scientist, Hybridoma Research (CA 600-02-03)

Patent Information Specialist/Patent Agent (CA 600-02-14)

Research Associate I, Hybridoma (CA 630-02-12)

Research Associate, Cell Biology/Immunology (CA 600-02-09)

Research Associate, Conjugation Chemistry (CA-600-02-13)

Research Associate, Hybridoma Research (CA-600-02-04)

Research Associate, Hybridoma Research (CA-630-02-05A)

Research Associate, Hybridoma Research (CA-630-02-05B)

Research Associate, Molecular Biology (CA-600-02-08)

Research Associate, Protein Chemistry (CA-600-02-11)

Research Associate, Protein Chemistry (CA-620-02-13)

Scientist/Senior Scientist, Bioconjugation Chemistry (CA-620-02-31)

Scientist/Senior Scientist, Molecular Biology (CA 600-02-09A)

Scientist/Senior Scientist, Conjugation Chemistry (CA-600-01-31)

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For consideration, please email your resume to

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EOE



DEAN School of Pharmacy

University of North Carolina - Chapel Hill

The University of North Carolina at Chapel Hill invites applications and nominations for the position of Dean of the School of Pharmacy.

The Dean is the School's chief academic and administrative officer, responsible for providing the vision and leadership for a faculty and staff, with a dual mission of excellence in sponsored research and progressive pharmaceutical care practice. The Dean is expected to be an effective advocate for the School, both on and off campus, as well as a leader for pharmacy throughout the state. The successful candidate will have a distinguished record of scholarly achievement and professional credentials consistent with appointment at the rank of full professor. The Dean reports to the Executive Vice-Chancellor and Provost, and serves on UNC's Deans' Council.

The School offers both traditional and non-traditional PharmD programs, as well as graduate programs leading to the MS and PhD degrees in the Pharmaceutical Sciences with concentration in each of the four academic Divisions: Drug Delivery and Disposition, Medicinal Chemistry and Natural Products, Pharmaceutical Policy and Evaluative Sciences, and Pharmacotherapy. The School is a major partner with the superb Area Health Education Centers (AHEC) programs in North Carolina. The School has 61 FTE on-campus and 30 off-campus (AHEC) faculty, and currently enrolls 125 students per year into the 4-year traditional PharmD program. Currently, 70 students are pursuing graduate degrees in the School. A new building to be occupied in Fall 2002 will double available research and teaching space. Extensive collaborations exist with major universities and leading pharmaceutical and biotechnology companies that constitute key components of the North Carolina Research Triangle Park.

The University is a member of the 16-campus, fully accredited, state-supported university system, enrolls 25,000+ students, and has a highly regarded network of major professional schools. The School of Pharmacy is located in immediate proximity to the highly regarded network of professional schools that include Dentistry, Medicine, Nursing and Public Health. The School of Pharmacy has strong programmatic collaborations with these schools, as well as with UNC Hospitals and its NIH-funded General Clinical Research Center.

The Qualifications of the successful candidate should include:

- A PharmD or PhD degree preferred, with a record of distinguished scholarly achievement;
- Experience in and dedication to excellence in professional and graduate education;
- A strong commitment to basic, translational, clinical and policy research;
- Ability to think strategically and to build effective institutional partnerships;
- Demonstrated administrative experience, a high standard of professional integrity, and strong team-building skills;
- Ability to articulate effectively the School's vision and mission to the students, faculty, alumni, practitioners, pharmaceutical industry, external funding agencies, and other decision-making bodies.

Applications and Nominations are invited for the position to be available on 1 January 2003. The School encourages nominations of and applications from women, minorities and persons with disabilities. Preference will be given to nominations and applications received prior to 31 July 2002. Nominations and applications should be sent to: **Dr. John Stamm, Chair; School of Pharmacy Dean Search Committee; Office of the Provost; 104 South Building CB# 3000; The University of North Carolina at Chapel Hill; Chapel Hill NC 27599-3000, USA.** Applicants' letters must be accompanied by curriculum vitae as well as names and addresses of four references. Applicants are encouraged to make electronic submissions, and to direct these to the Provost's Office via pcclark@email.unc.edu

The University of North Carolina is an Equal Opportunity Employer.

By fusing our proven strengths in small molecule drug discovery with our target and drug screening expertise, we at Vertex, San Diego, are working to accelerate the creation of breakthrough drugs to treat serious diseases. Our unique integrated platforms create challenging opportunities for outstanding talent. We currently seek a Computational Scientist for a position in our Discovery Biology Department.

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The New York Office seeks a further Scientific Administrative Officer to assist in identifying areas of research within the Institute suitable for patent protection. By working closely with branch scientists, existing members of the London and New York Intellectual Property Offices and the Institute's patent counsel, the successful candidate will help in preparing and prosecuting patent applications.

Applicants should have had at least 3 years postgraduate research experience, preferably in relation immunology or molecular biology. Some knowledge of oncology would be helpful. Prior experience of patenting would be advantageous. However, a wideranging interest in science and an ability to rapidly assimilate new data are essential. Some international travel may be involved.

Salary will depend on previous experience and is subject to negotiation. Interested candidates should apply in writing to A. Munro Neville, M.D., enclosing a copy of their curriculum vitae, together with the name of two references before June 30, 2002 to:

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605 Third Ave., 33rd Floor
New York, NY 10158, USA
Fax: 001-212-450-1555

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The deadline for receipt of applications is July 31st, 2002.

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Send cover letter, CV and names/addresses of 3 references by August 1, 2002 to: **Stephanie Costanza, Search Committee Coordinator, F.I. Proctor Foundation, UCSF, 95 Kirkham Street, San Francisco, CA 94143-0944; Phone: (415) 476-1441.**

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Team Leader, In vitro Pharmacology

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Please mail, fax or email CV to: **Amy Dixon, Genetica, Inc., One Kendall Square Bldg. 600, Cambridge, MA 02139**
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Chemoinformatics - Develop creative computational strategies for analyzing, visualizing and cross-correlating data sets from small molecule, gene and protein screens. Develop and implement systems to prioritize lead candidates, model chemical structures and integrate chemical and genomic data. Familiarity with industry standard chemoinformatics tools (ActivityBase, Spotfire, Catalyst, Cerius2) required. Job code INYP-001

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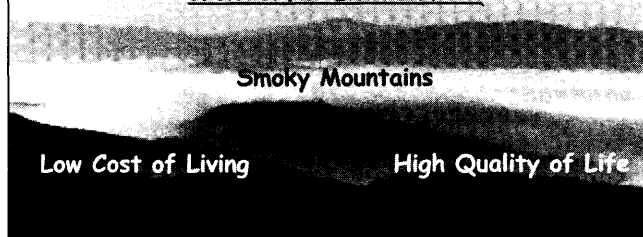
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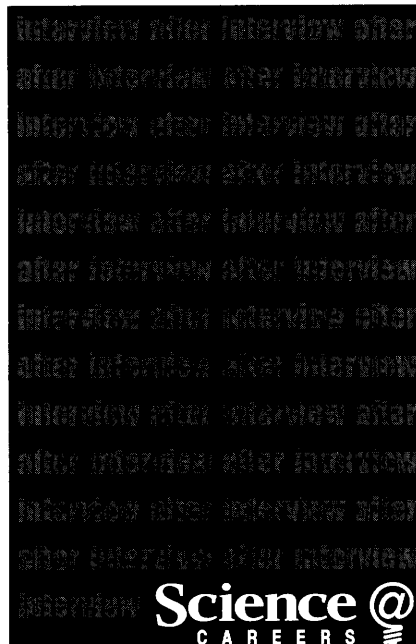
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The successful candidate will have a Ph.D. in Biochemistry, Molecular Biology or a related discipline. General expertise in protein expression, purification and analysis is required and specific experience working with antibodies is preferred. Industry experience is a plus and a preference for working in a team-oriented, matrix-management environment is essential.

Research Associate in Neurobiology:

The successful candidate will work with a team of scientists to explore potential therapeutics for spinal cord injury and related neurological disorders. A BS degree in biology or related discipline, one or more years of laboratory experience, and excellent team skills are required. Experience in tissue culture techniques, small animal surgery, animal behavior, histology, or biochemistry desired. Industry experience is preferred.

Research Associate in Histology:

The successful candidate will have extensive training and experience in histological methods. Individuals with expertise in immunohistological techniques applied to the nervous system are preferred. Strong communication and teamwork skills are required. Industry experience is a plus.

We offer competitive compensation and excellent benefits. Please send a cover letter and resume, indicating position desired, to: Acorda Therapeutics, 15 Skyline Drive, Hawthorne, NY 10532. You can also fax: (914) 347-4560 or email: humanresources@acorda.com.

Visit our website at: www.acorda.com.
Acorda Therapeutics is an Equal Opportunity Employer.

ACORDA
THERAPEUTICS

VACCINES TO ERADICATE AIDS

VaxGen (Nasdaq: VXGN), founded in 1995, is a biopharmaceutical company leading the worldwide development of vaccines to eradicate HIV/AIDS. We are the first and only company with AIDS vaccine candidates in Phase III clinical trials. To support our continued growth, our new biologics manufacturing joint venture, and the expansion of our laboratories, we currently have the following exciting career opportunities available:

R&D

- Director, Bioanalytical Chemistry (Job Code: 44042802LR-PB)
- Research Associate, Bioanalytical Chemistry (Job Code: 44042802LR-PB)
- Director, New Products (Job Code: 40042802-PB)
- Senior Research Associate, Fermentation (Job Code: 46042802-CK)

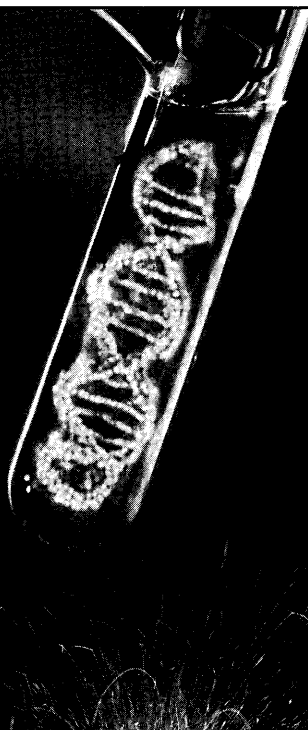
We offer competitive salaries & benefits. To apply, please send us your CV and letter of interest to:

VaxGen, Inc.
HR Department
Attn: (Job Code ____)
1000 Marina Blvd., Ste 200
Brisbane, CA 94005
Email: jobs@vaxgen.com
Equal Opportunity Employer

VaxGen

For complete job descriptions, please visit
both www.BioSpace.com and our web site at

www.VaxGen.com



ONCOLOGY

Biogen has an opportunity at its Cambridge, MA R&D headquarters for a SCIENTIST. A PhD plus 2 years post-doctoral experience is required. Industry experience is helpful. In addition, you will need strong molecular and cell biology skills.

Come help Dr. Gilman (see his interview in the "Careers in Biotechnology & Pharmaceuticals" section) work on programs in cell surface targets, protein/antibody therapeutics and growth factor/receptor biology.

For consideration, please forward your resume, **indicating Job Code RC-ONC-SCI, to Biogen, Inc., Attn: Human Resources, 14 Cambridge Center, Cambridge, MA 02142**; email: resumes@biogen.com (Job Code ONLY must appear in the subject line).

Biogen is an Equal Opportunity Employer.

Visit www.biogen.com for details on all of our exciting career opportunities in Cambridge, Massachusetts, Research Triangle Park, North Carolina, and Europe.

BIODGEN[®]
The Drive to Discover...
The Discipline to Deliver

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YEARS

GLOBAL OPPORTUNITIES



SULTAN QABOOS UNIVERSITY COLLEGE OF AGRICULTURE AND MARINE SCIENCES UNESCO Chair in Seafood Biotechnology

Sultan Qaboos University, the national University of Sultanate of Oman, is seeking an outstanding individual in **Fisheries/Food Sciences** to fill the newly established UNESCO Chair in seafood Biotechnology. The aim of the Chair is to promote an integrated system of research, training, information and documentation in the field of advanced applied process biotechnologies, food safety and environment protection. It will also serve as a means of facilitating collaboration between high-level, internationally recognized researchers and teaching staff of the University and other institutions. The Chair is expected to work closely with the Head of the Department of Marine and Science and Fisheries and the Department of Food Science and Nutrition in the development of value added seafood products. Superb facilities, coupled with Oman's spectacular marine environment, make this a prestigious position with considerable potential. We are looking for an experienced individual with vision, a strong research, experience in graduate supervision, knowledge of food processing and a commitment to participative, collegial management.

The University is located near the capital area and close to excellent international schools and unique natural recreational areas. Apart from a very attractive tax free base salary in the Sultanate, Sultan Qaboos University offers free furnished accommodation, excellent recreational facilities on campus, subsidized schooling for up to two children, 60 days annual leave with return air tickets, end of service gratuity, and free medical treatment in Government Hospitals in the Sultanate.

Enquiries can be addressed to the Dean of the College of Agriculture and Marine Sciences, Prof. Mattheus F. A. Goosen, at theog@squ.edu.om. The Position will remain open until filled, Applications should include a statement of interest, a detailed curriculum vitae, names and addresses of three referees and reprints of the applicant's three important scientific contributions in the field of seafood biotechnology, quoting our Ref: ADV/AGRI/UNESCO/05/02, to the following address:

The Director, Personnel Affairs – Sultan Qaboos University
P.O Box 20, PC 123 – Al Khodh - Sultanate of Oman
e-mail: vacancies@squ.edu.om

PROFESSOR OF GENETICS

HARVARD MEDICAL SCHOOL - PARTNERS HEALTHCARE SYSTEM CENTER FOR GENETICS AND GENOMICS

The newly created Harvard Medical School-Partners Healthcare System Center for Genetics and Genomics (HPCGG) invites applicants for several professorial positions. Partners Healthcare is the parent organization for several hospitals in the Boston area, including Brigham and Women's Hospital and Massachusetts General Hospital. Successful candidates will have appointments in the Department of Genetics at Harvard Medical School, a joint appointment in a clinical department at one of the hospitals, and will be considered faculty of the HPCGG. We are searching for internationally recognized leaders with an M.D. and/or Ph.D. in areas such as DNA repair, gene dosage and mechanisms of dosage compensation, genetic analysis of complex disease, and Bioinformatics. Beyond their research expertise, the successful candidates should have a strong interest in modern genetics and genomics and wish to collaborate with a broad group of physicians and scientists at the Harvard Medical School and affiliated institutions. These positions offer outstanding scholarly and scientific resources in a collegial and collaborative atmosphere. Successful candidates will conduct research and will be involved in teaching programs for graduate and medical students as well as residents and fellows in genetics, genomics, and related sciences. Applicants should send a letter of application, including a curriculum vitae and a brief description of research interests to:

**Raju Kucherlapati, Ph.D., Paul C. Cabot Professor of Genetics
Chair, HPCGG Search Committee**

917 Thorn Building
20 Shattuck Street
Boston, MA 02115

*Harvard Medical School and Partners Healthcare are equal
opportunity/affirmative action employers with institutional commitments to
diversity in their faculty.*

HARVARD MEDICAL SCHOOL



Tenure track positions in the Center for Tropical
Diseases in one of the following areas:

Parasitology, Epidemiology, Vector Biology or Biosafety Level 3 and Level 4 Viruses

The Center for Tropical Diseases and the Department of Pathology at The University of Texas Medical Branch in Galveston (UTMB) invite applications for tenure track faculty positions at the Assistant, Associate, and/or Full Professor level. Successful applicants will hold a Ph.D., M.D. or equivalent degree.

We envision filling these positions by research scientists working in virology, parasitology, vector biology and/or epidemiology, who can interact with other areas of research interest within the University (e.g., bioinformatics, genomics, proteomics, structural biology, neuropathogenesis, vaccine development, endothelial cell biology, vector-host or vector-pathogen interactions). Outstanding opportunities exist for research utilizing existing biosafety level-3 facilities and a new BSL-4 laboratory that will be completed during 2003, University Centers for Structural Biology and Vaccine Development, and a genomics core facility utilizing Affymetrix and in-house gene array technology coupled with bioinformatics support.

Scientists applying for the Associate and Full Professor level should have established funding.

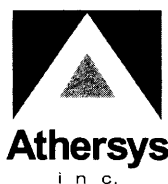
UTMB offers an excellent environment that is rich in opportunities for productive interactions with other scientists who study the basic biology and pathogenesis of infectious diseases. The successful candidates will be expected to develop independent research programs and to participate in the education of graduate and medical students and postdoctoral research fellows in the biomedical sciences.

Interested applicants should send a curriculum vitae, a statement of personal and academic goals, and names of three references to: **David H. Walker, M.D., Chairman, Department of Pathology, The University of Texas Medical Branch, 301 University Blvd., Galveston, Texas 77555-0609.**

UTMB is an equal opportunity employer M/F/D/V. Minorities and females are encouraged to apply. UTMB is a smoke free/drug free work place. UTMB hires only individuals authorized to work in the U.S.



CAREERS in BIOTECHNOLOGY & PHARMACEUTICALS



Senior Director - Cell Biology/ Functional Genomics

Athersys is a privately held biotechnology company engaged in the development of therapeutic products for the treatment of significant and life threatening diseases. The company's research and development programs are focused on maximizing the utility of its two proprietary platform technologies: RAGE (Random Activation of Gene Expression) and the SMC (Synthetic Microchromosome) vector system.

Job Description: We presently seek a Senior Director of Cell Biology/Functional Genomics. The Senior Director will be responsible for managing all aspects of the company's functional genomics and genetics efforts. Accordingly, excellent scientific, communication, and leadership skills are required. The position will report directly to the Vice President of Drug Discovery.

Job Requirements: The successful candidate will be a highly motivated individual who has a clear record of productivity. The position requires at least 10 years of prior experience leading a significant research effort in the areas of functional genomics and drug target identification. Candidates who have managed research teams in the pharmaceutical or biotechnology industries will be given preference. Applicants should have extensive experience in the areas of cell-based functional assays, mammalian protein expression systems, bioinformatics and transgenic models.

Athersys offers a competitive salary and benefits package.
Send Resume/CV to:

Athersys, Inc.
Attn: Employment, Job #08-21021
3201 Carnegie Avenue
Cleveland, OH 44115
Or
jobs@athersys.com
or
Fax to 216-361-9596

QUINTILES TRANSNATIONAL ION-CHANNEL/CARDIAC ELECTROPHYSIOLOGY

QUINTILES Transnational is the world's leading provider of information, technology and services to bring new medicines to patients faster and improve healthcare. The Safety Pharmacology Department, based in Kansas City, Missouri, is currently undergoing expansion and is seeking candidates for a challenging opportunity in cardiac electrophysiology.

Study Director: Under the general direction of the Director of Safety Pharmacology, the successful candidates are expected to design, direct, evaluate and report in vitro cardiovascular pharmacology studies evaluating the effects of new drug candidates on ion channels (HERG expressed in HEK 293 cells) or cardiac action potential (Purkinje fibers); provide technical direction and leadership to staff involved in the conduct of these studies; develop, adapt and/or adopt new techniques for in vitro cardiovascular pharmacology; and consult and interact with clients.

The positions require a Ph.D. in pharmacology, physiology or related field with a minimum of 2 years post doctoral research experience in patch clamp electrophysiology and/or intracellular recording. A working knowledge of GLP is desirable.

Scientists: Under the general supervision of a Study Director, the successful candidates will assist in the conduct, evaluation and reporting of GLP electrophysiology studies using single- and multiple-cell preparations. This will include study-specific techniques such as whole-cell patch clamping; intracellular recording; cell culture; maintenance of study records; data analysis; and assisting in the preparation of reports.

The positions require a B.S. degree in pharmacology, physiology or related field. Experience with patch clamp techniques and/or intracellular recording is highly desirable.

Quintiles offers a stimulating and professional environment, competitive salaries and an excellent benefits package that includes a 401(k) plan. We invite qualified candidates to submit Curricula Vitae to www.quintiles.com. Study Director candidates submit to position # 1905, Scientists submit to positions # 2984 - #2985. If unable to apply on-line, please send CV to **QUINTILES, INC. attn: B3 M4964/NLP, PO Box 9708, KC, MO 64134.** An equal opportunity employer. M/F/D/V

MOLECULAR GENETICS POSTDOCTORAL POSITION

We recently helped clone the MEN1 gene, a novel tumor suppressor that has important roles in human tumors. It encodes menin, a nuclear protein that inhibits junD-mediated transcription. We are studying menin roles in normal and abnormal cells. Projects include protein-protein interactions, over or under expression in mammalian and non-mammalian systems, and interactions with DNA and reporters. Many novel approaches are possible. Applicants should have a doctoral degree and an excellent background in biochemistry or in one or more relevant topics. Applicants should not be more than 5 years beyond the most recent doctoral degree. NIH is an EEO employer. Send applications with contact information for three references to: **Stephen Marx MD, Bldg. 10 Rm. 9C-101, NIH, Bethesda, MD 20892.** Or use e-mail **StephenM@INTRA.NIDDK.NIH.GOV** or fax to 301-496-0200.



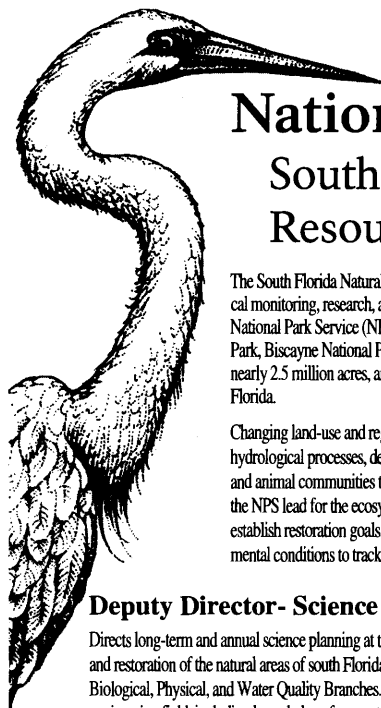
Postdoctoral Training Opportunities in Cancer Immunology

U.S. citizens and permanent residents are encouraged to apply for postdoctoral training fellowships in cancer immunology at the Dana-Farber Cancer Institute with a joint appointment in an appropriate department of the Harvard Medical School. DFCI/HMS offers substantial scientific resources within a stimulating research environment and opportunities for advancement. Highly qualified M.D., Ph.D. and M.D./Ph.D. candidates should send a CV to:

Alison_Angel@dfci.harvard.edu
or

Harvey Cantor
Postdoctoral Training Programs
Dana-Farber Cancer Institute
44 Binney Street, SM 722
Boston MA 02115

*DFCI is an Equal Opportunity
Employer. Women and minorities are
encouraged to apply.*



National Park Service South Florida Natural Resources Center

The South Florida Natural Resources Center was established in 1978 to conduct ecological and hydrological monitoring, research, and natural resources management studies to guide the preservation of the four National Park Service (NPS) units in South Florida. Collectively these NPS units (Everglades National Park, Biscayne National Park, Dry Tortugas National Park, and the Big Cypress National Preserve) include nearly 2.5 million acres, and were established to preserve the natural and cultural resources of South Florida.

Changing land-use and regional water management practices over the last century have altered the natural hydrological processes, degraded water quality, and decreased the abundance and diversity of native plant and animal communities throughout South Florida. The South Florida Natural Resources Center serves as the NPS lead for the ecosystem restoration initiatives in South Florida, conducting scientific studies to establish restoration goals, evaluate the impacts of proposed management actions, and monitor environmental conditions to track long-term restoration success.

Deputy Director- Science

Directs long-term and annual science planning at the SFNRC, and oversees multi-disciplinary projects focused on the preservation and restoration of the natural areas of south Florida. Supervises a staff of approximately 60-65 scientists and engineers in the Biological, Physical, and Water Quality Branches. Graduate level education is preferred or equivalent experiences in a science or engineering field, including knowledge of ecosystem restoration practices and the management of protected areas. Candidates should have relevant experience in science planning, environmental research, and/or natural resource management. (Homestead, FL)

Deputy Director- Project Implementation

Oversees the tracking and management of all SFNRC projects, including administrative, logistical, IT support, project scoping, product output and quality control, and interagency coordination and outreach. Directs a 35-40 person staff in the Project Management, Administration, Information Systems, and Science Communications Branches. Graduate level education is preferred or equivalent experiences in a science or engineering field and specific experience in administering and managing natural resources management and/or environmental sciences programs. (Homestead, FL)

Branch Chief- Science Communications

Develops and implements communications and outreach strategies to translate scientific and technical information into concise scientific messages and policy guidelines. Directs a staff of inter-agency science liaisons, technical writers, and graphic artists. Graduate level education is preferred or equivalent experiences in a science or communications field, skills in communicating technical information to natural resource managers, outside agencies, and the stakeholder community. Candidates should have experience in the areas of science communications, technical writing, and inter-agency coordination and outreach. (Homestead, FL)

Ecotoxicologist

Performs technical assessments and predictive simulations of the potential affects of land use and water management activities related to the impacts of contaminants on protected natural areas and their biological communities. Graduate level education is preferred or equivalent experiences in a biology, chemistry, environmental engineering, or a related field, with experience in risk assessments, wetland processes, and the sources, transport and fate of contaminants in surface water and groundwater environments. Candidates should have relevant experience in ecotoxicology. (West Palm Beach, FL)

Environmental Engineer

Performs technical assessments and predictive simulations of the potential affects of land use activities related to the impacts of degraded water quality on protected natural areas and their biological communities. Graduate level education is preferred or equivalent experiences in biology, chemistry, environmental engineering, or a related field, with experience in water quality assessments, wetland processes, compliance tracking, and the affects of degraded water quality on biological communities. Candidates should have experience in water quality assessments. (West Palm Beach/Homestead, FL)

Landscape Ecologist

Develops or applies population and community level simulation models and other habitat evaluation tools to assess the impacts of regional land use and water management activities on the freshwater and estuarine resources of the south Florida ecosystem. Graduate level education is preferred or equivalent experiences in biology or a related field, knowledge of the physical and biological factors regulating plant and animal populations, and quantitative methods for analyzing spatial changes in key communities and indicator species. Candidates should have experience in landscape ecology. (Homestead, FL)



Please refer to <http://www.usajobs.opm.gov> for specific job announcement
Direct inquiries for job application to Human Resources Office: Phone# (305)-242-7720
Direct inquiries for specific job information to: SFNRC, Everglades National Park, 40001 State Road 9336
Homestead, Florida 33030, Phone # (305)-242-7800, Fax # (305)-242-7836
Visit our website at <http://www.sfnrc.ever.nps.gov>

National Park Service is an Equal Opportunity Employer
Applicant must be a United States Citizen in order to be considered
Vacancies are available in West Palm Beach and Homestead, Florida



VETERINARY MEDICAL OFFICER

The Agricultural Research Service, Avian Disease and Oncology Laboratory in East Lansing, Michigan, is seeking a Veterinary Medical Officer to conduct research aimed at a better understanding and control of Marek's disease, an economically important herpesvirus-induced lymphoproliferative disease of chickens. The incumbent works as a member of a team and as an independent investigator in studies focused on the immunopathogenesis, diagnosis and control of Marek's disease. Specific objectives of the research include: monitoring disease incidence in commercial flocks; development of improved methods for tumor diagnosis; evaluation of factors that influence the induction and maintenance of protective immune responses; biological characterization of recombinant Marek's disease viruses carrying deletions or inserted foreign DNA; and development of improved biological assays for vaccine efficacy, pathotype evaluation and other animal bioassays. The research is expected to provide information essential to the control of Marek's disease.

Applicants must have a Doctor of Veterinary Medicine (D.V.M.) or equivalent degree at a school approved or accredited by the American Veterinary Medical Association, a State department of education, or a State Board of Veterinary Medical Examiners. In addition, applicants must have 1 year of specialized experience as indicated in the vacancy announcement; applicants at the GS-12 can also qualify with either a Ph.D. or equivalent doctoral degree in a field of veterinary or related science. Applicants must be U.S. citizens. Salary for GS-12 ranges from \$54,275 to \$70,555; GS-13 salary ranges from \$64,542 to \$83,902; GS-14 salary ranges from \$76,271 to \$99,150 depending on experience. Closing date of this announcement is **June 28, 2002**. Call **301-504-1482** to request a copy of ARS-X2W-2311 or access website www.ars.usda.gov; call **301-504-1556** for information on application procedures. For specific questions about the position call **Dr. Aly Fadly at 517-337-6828**.

USDA/ARS is an Equal Opportunity Provider and Employer.



PROGRAM OFFICER, MARINE MAMMAL SCIENCE AND TECHNOLOGY

(Geographer, Biologist, Fishery Biologist, Physicist, or Computer Scientist)

The Office of Naval Research is seeking a qualified individual to plan and manage sponsored basic/applied research, and advanced development programs and projects in the broad areas of marine mammal biology and marine ecosystem dynamics, with particular emphases on issues associated with the biology and ecology of marine mammals and other marine organisms, ecosystem modeling, acoustic oceanography, biosonar, hydrodynamics and physiology; as well as the application of information technologies to ecosystem modeling (e.g. GIS), geographic remote sensing technologies, underwater acoustics and the biological effects of sound, biosonar and acoustic signal processing, swimming hydrodynamics and energetics, and immune system function, genetics and stress diagnostics.

This is a Federal Civil Service position at the 13/14/15 level (\$66,229 - \$119,682), depending on individual qualifications. This position may be filled under the Intergovernmental Personnel Act (IPA).

For information on qualifications and how to apply, see Announcement **#DE-ONR-02-0215-NR** (for both Federal and non-Federal applicants) at our website <http://www.onr.navy.mil/hr>. Applications must be in the Human Resources Service Center Office by close of business 14 June 2002 or postmarked as of that date. For technical information contact Dr. Robert Gisiner at (703) 696-2085 or by e-mail at gisiner@onr.navy.mil.

U.S. CITIZENSHIP REQUIRED • AN EQUAL OPPORTUNITY EMPLOYER

DIRECTOR LUNAR AND PLANETARY INSTITUTE

A search is being conducted for a Director of the Lunar and Planetary Institute (LPI). The Institute, established in 1968 and located in Houston, Texas, is chartered to conduct and support research on the formation, evolution, and current state of the solar system and its constituent parts, as well as to assist in planning and execution of the robotic and human exploration of the solar system.

The Institute, funded by NASA through a contract with Universities Space Research Association, serves as a focal point for lunar and planetary science activities, and seeks to encourage participation of scientists in solar system exploration. The Institute is a leader in education and public outreach through a variety of activities, and is a Broker/Facilitator in NASA's Office of Space Science Education network. A key role played by the Institute is support of topical workshops and conferences related to planetary sciences. These efforts have led to the establishment of new programs, such as NASA's Origins Program.

Salaries and benefits are competitive and attractive, and will depend upon an individual's qualifications. Applicants should have experience in one or more of the research areas of interest to the Institute, a proven record of research excellence, administrative skills, and research leadership.

An application, containing a complete resume, including three references, should be sent to: **W. D. Cummings, Executive Director, Universities Space Research Association, 10227 Wincopin Circle, Suite 212, Columbia, MD 21044**. Applicants should also include a succinct statement of their vision for the LPI, and what steps he/she would take to achieve that vision. Applications received by June 30, 2002 will be given full consideration. Further information regarding the LPI and USRA may be found at <http://www.lpi.usra.edu> and <http://www.usra.edu>. *EEO*

Uppsala University
INDUSTRIAL LIAISON OFFICE
www.uunlk.com



European Careers: STOCKHOLM-UPPSALA

SCIENCE, in collaboration with Uppsala University Industrial Liaison Office and the Centre for Medical Innovations at Karolinska Institutet,

will publish a European Careers report focusing on the Stockholm-Uppsala region of Sweden in the issue of

27 September 2002

Booking deadline: 10 September

For recruitment/profile advertisements, please contact Tracy Holmes:

Tel +44 (0) 1223 326 525
Fax +44 (0) 1223 326 532
E-mail tholmes@science-int.co.uk

Science @
CAREERS
www.sciencecareers.org

AAAS



POSTDOCTORAL POSITION Rochester, Minnesota, U.S.A

NIH funded postdoctoral position is available to study nicotinic acetylcholine receptor structure. The project focuses on determining the structure of the ligand binding domain of the receptor using protein chemistry, molecular modeling and structural determination. Seeking highly motivated applicants experienced in molecular biology, large-scale protein expression, protein chemistry and protein computational methods.

Salary will be determined by the successful candidate's experience. There is an attractive benefit package. Mayo Clinic is a not-for-profit organization. Mayo integrates research with clinical practice and education in a multi-campus environment. For further information please visit <http://www.mayo.edu/research/>.

Applications, including curriculum vitae and bibliography, summary of past accomplishments, and the names of three references, should be sent to:

Steven M. Sine, Ph.D.
Professor of Physiology
Physiology and Biophysics, 1-135 MS
Mayo Clinic, 200 First St. SW
Rochester, MN 55905
(507)-284-9404
sine@mayo.edu

Mayo Foundation is an Affirmative Action and Equal Opportunity Employer and Educator.



SCIENTIFIC REVIEW ADMINISTRATOR POSITION AT THE CENTER FOR SCIENTIFIC REVIEW NIH

The Center for Scientific Review (CSR), National Institutes of Health (NIH), seeks a scientist with expertise in the area of Digestive Sciences who is interested in serving as a Scientific Review Administrator (SRA) in the management of the NIH peer review process.

Scientific Review Administrator (GS-12/13/14) will be responsible for the overall management of committees composed of leading scientists in their respective fields who meet to judge the scientific merit of investigator-initiated research grant applications. He/she will work with eminent scientists to identify those highly meritorious research projects that promise to advance the field of study of digestive sciences, with particular emphasis on gastrointestinal, hepatobiliary and pancreatic physiology, immunology and pathobiology at the molecular, cellular, tissue and whole organ levels in humans and animals.

Applicants must be U.S. citizens, and have earned the Ph.D. or M.D. (or have equivalent training and experience). It is crucial to have a record of independent research accomplishment, typically requiring several years beyond the doctoral degree. Salary will be commensurate with experience. A recruitment/relocation bonus may be available.

Please submit curriculum vitae by e-mail or mail to:

Mushtaq A. Khan, DVM, Ph.D.
Chief, Pathophysiological Sciences Integrated Review Group
Center for Scientific Review, NIH
6701 Rockledge Drive, Room 2176 MSC 7818
Bethesda, MD 20892-7818
(For courier, use 20817)

E-mail: khanm@csr.nih.gov

Selection for this position will be based on merit, with no discrimination for non-merit reasons, such as race, color, sex, national origin, marital status, disability, age, sexual orientation, or membership/nonmembership in an employee organization.

IMMUNOLOGY FACULTY POSITIONS

*The Center for Cancer Immunology Research
The Department of Immunology,
The Department of Blood and Marrow Transplantation,
Section of Transplantation Immunology*

The University of Texas M. D. Anderson Cancer Center in Houston has created a new Center for Basic and Cancer Immunology Research. The Center will be housed in a 132,000 sq. ft. new building in the fall of 2002, which will provide state-of-the-art facilities to conduct cutting-edge research and to develop novel cancer therapies.

The Department of Immunology invites applications for tenure-track positions at the Assistant and Associate Professor level. Specific research areas include: (1) Toll-like receptors, immune receptors with cytoplasmic ITAM or ITIM motives, and TNF-receptor family members; (2) Molecular mechanisms of antigen processing and presentation; (3) T cell activation and differentiation into different effector cells; (4) T cell tolerance and immunity against tumor antigens *in vivo*; (5) Regulation of immune responses by dendritic cells *in vivo*; (6) Costimulatory molecules, including the B7 family of ligands and their receptors; (7) Hematopoietic stem cell biology, and (8) DC-based immunotherapy of human cancers. Applicants should have a Ph.D. or M.D. with post-doctoral research experience, and a strong record of publications. Successful applicants will be expected to establish high-quality, independent research programs, supported by external peer-reviewed funding, and participate in our graduate training program. Excellent start-up funds, salary, and benefits package will be provided, as well as access to state-of-the-art equipment, communications, research, and core facilities. Interested individuals should submit their C.V., brief outline of current and future research plans, and names of five referees to: **H. N. Ananthaswamy, Ph.D., Chair, Search Committee, Department of Immunology, The University of Texas M. D. Anderson Cancer Center, 1515 Holcombe Blvd., Box 178, Houston, TX 77030.**

The Department of Blood and Marrow Transplantation, Section of Transplantation Immunology invites applications for tenure-track positions at the Assistant Professor level. Research areas include (1) the study of allogeneic T cell immunity against tumors, and (2) the molecular mechanisms of transplantation tolerance. Successful applicants will be expected to establish high quality independent research programs and will have a M.D./Ph.D. or M.D. degree. There is tremendous opportunity for close collaboration with investigators from the Department of Immunology and other departments in the Center for Cancer Immunology Research. Excellent start-up funds, salary and benefits package will be provided. Interested applicants should submit their C.V., a brief outline of current and future research plans and names of five referees to: **Jeffrey Mouldrem, M.D., Chief, Section of Transplantation Immunology, Blood and Marrow Transplantation Department, The University of Texas M. D. Anderson Cancer Center, 1515 Holcombe Blvd., Box 448, Houston, TX 77030.**

THE UNIVERSITY OF TEXAS
MD ANDERSON
CANCER CENTER
Making Cancer History™

*The University of Texas M. D. Anderson Cancer Center values diversity in its broadest sense. Diversity works at M. D. Anderson.
EEO/AA Smoke-free environment.*

POSITIONS OPEN

VIROLOGIST

The Virginia-Maryland College of Veterinary Medicine, University of Maryland, College Park campus, invites applications from qualified individuals for a nine-month, tenure-track faculty position in virology at the **ASSISTANT/ASSOCIATE PROFESSOR** level.

Position comprises 80% research, 20% teaching. The successful candidate will be expected to develop an active, independent, extramurally funded research program and work in a multidisciplinary environment. A Ph.D. degree in virology, molecular biology, or related field and demonstrated evidence of postdoctoral research experience are required. Candidates should possess a willingness to work with animal viruses. Areas of interest might include but are not limited to virus-host interaction, virulence factors, virus genetics, or vaccine development. Applicants at the Associate Professor level are expected to have an established, extramurally funded research program and a strong publication record. Salary will be commensurate with experience and excellent start-up and benefits packages are offered. Submit a letter of application; curriculum vitae; statement of research interests/goals; and the names, addresses, and telephone numbers of three professional references to: **Dr. Vikram N. Vakharia, Chair, Virologist Search Committee, 8075 Greenmead Drive, University of Maryland, College Park, MD 20742-3711**. Applications will be accepted until August 1, 2002, or until a suitable candidate has been identified. The position is available immediately.

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

Women and minorities encouraged to apply.

FACULTY POSITION Structural Biology

The Department of Molecular and Cellular Biochemistry at the Ohio State University seeks an outstanding individual at the **ASSISTANT or ASSOCIATE PROFESSOR** level working in the general area of structural biology. The search will first and foremost seek to identify the strongest candidate but consideration will be made with regard to the University's identified goal of developing X-ray crystallography of biological macromolecules and structural genomics/proteomics. The responsibilities of the successful candidate will be to develop a strong research program and to contribute to the teaching activities of the Department. A highly competitive start-up package and space in a modern, state-of-the-art research building will be available to the successful candidate. Please submit curriculum vitae; selected reprints; description of research interests and goals; grant support (if applicable); and the names, current addresses, and telephone/FAX numbers of three references to: **Chair, Search Committee B, Department of Molecular and Cellular Biochemistry, The Ohio State University, 333 Hamilton Hall, 1645 Neil Avenue, Columbus, OH 43210-1218**. The Search Committee will begin reviewing applications September 1, 2002.

The Department of Pharmacology and Cancer Biology, in conjunction with the Sarah W. Stedman Center for Nutritional Studies at Duke University Medical Center, invites applications for a faculty position at the **ASSISTANT PROFESSOR** level. We seek an individual who will establish a dynamic research program in one of the two following areas: (1) molecular mechanisms by which caloric restriction leads to longer lifespan or (2) regulation of gene expression as it pertains to metabolic regulation. The successful candidate will join a vibrant department and contribute to the development of new center initiatives and will enjoy strong interactions with many other units across the scientific community at Duke. A statement of research interests, curriculum vitae, and three letters of reference should be sent to: **Faculty Search Committee, Department of Pharmacology and Cancer Biology, Box 3813, Duke University Medical Center, Durham, NC 27710**. *Duke University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN



ASSISTANT/ASSOCIATE PROFESSOR Pharmacodynamics

The Department of Pharmaceutical Sciences invites applications for a tenure-track position at the **Assistant/Associate Professor** level. Candidates must possess a Ph.D. in pharmacology, medicinal chemistry, or a related field with experience in the molecular and/or biochemical basis of drug action and be conversant with the latest bioanalytical and molecular biologic methods involved in studying the design, action, and development of new pharmacologic entities. The successful candidate should possess appropriate postdoctoral training; a strong record of research accomplishments; and the ability to establish/maintain an independent, extramurally supported research program. Participation in the teaching mission of the School at the Pharm.D. and graduate level is an expected component. Excellent opportunities exist within the Department and the School of Pharmacy, Medicine, and Allied Health for collaboration. An undergraduate pharmacy background is desirable.

Review of applications will continue until the position is filled. Applicants should submit a letter of application, curriculum vitae, the names and addresses of three references, and a brief description of current and future research directions to: **Michael R. Borenstein, Ph.D., Chair, Department of Pharmaceutical Sciences, Temple University School of Pharmacy, 3307 North Broad Street, Philadelphia, PA 19140**. Telephone: 215-707-4948; FAX: 215-707-3678; e-mail michael.borenstein@temple.edu.

Temple University is an Equal Opportunity/Affirmative Action/Americans With Disabilities Act Employer.

CODIRECTOR LABORATORY FOR LYMPHOMA IMMUNOTHERAPY James P. Wilmot Cancer Center University of Rochester School of Medicine and Dentistry

The James P. Wilmot Cancer Center at the University of Rochester is seeking a candidate that can apply basic scientific skills to the development of clinical immunotherapeutic approaches to the treatment of cancer. The preferred candidate should hold a Ph.D. degree and have postdoctoral training in immunology, molecular biology, or biochemistry. Although based at the University of Rochester, the candidate will collaborate with Scientists at the State of New York at Buffalo Medical School as well as the University of Rochester. Applicants should send their curriculum vitae and contact information for three references to: **Steven H. Bernstein, M.D., c/o Brian Martin, James P. Wilmot Cancer Center, 601 Elmwood Avenue, Box 704, Rochester, NY 14642**. FAX: 585-273-1042; e-mail: brian_martin@urmc.rochester.edu. *The University of Rochester is an Equal Opportunity Employer.*

ASSISTANT/ASSOCIATE PROFESSOR (Tenure Track) Cell and Developmental Biology

Required qualifications: Ph.D. or equivalent degree in a biological/biomedical science or related field, postdoctoral experience, research background in cell/developmental biology, ability to teach a development course in the professional curriculum. Must have or will have extramural funding. Excellent aquatic and laboratory animal facilities. Salary and rank will be commensurate with qualifications including start-up package. Application deadline is June 30, 2002, or until candidate is selected. Submit letter of application and résumé to: **Gary E. Wise, Ph.D., Comparative Biomedical Sciences, School of Veterinary Medicine, Louisiana State University, Reference Number 014396, Baton Rouge, LA 70803**. Telephone: 225-578-9889. *Louisiana State University is an Equal Opportunity/Equal Access Employer.*

POSITIONS OPEN

FACULTY POSITIONS

Department of Neurobiology

University of Massachusetts Medical School

The Department of Neurobiology, established as part of the unprecedented research expansion at the University of Massachusetts Medical School, has recently hired several outstanding faculty. We now solicit applications for additional junior (tenure-track) positions. The new Department augments an already existing interdisciplinary program in neuroscience. The laboratories for the Department are housed on one floor of a new state-of-the-art, 340,000 square foot research building.

The Department seeks individuals of outstanding potential who are investigating fundamental mechanisms of brain function. Specific areas of emphasis include but are not limited to molecular, cellular, and developmental neurobiology. The positions are highly competitive with regard to start-up funds, laboratory space, and salary. Rank will be commensurate with ability and experience.

Applicants should send curriculum vitae, statement of research interests, and names and addresses of three references to:

Dr. Steven M. Reppert

**Chair, Department of Neurobiology
University of Massachusetts Medical School
364 Plantation Street
Worcester, MA 01605-2324**

Website:

<http://www.umassmed.edu/neurobiology/>

An Equal Opportunity/Affirmative Action Employer.

IMMUNOLOGIST

The Virginia-Maryland College of Veterinary Medicine, University of Maryland, College Park campus, invites applications for a nine-month, tenure-track faculty position in immunology at the **ASSISTANT/ASSOCIATE PROFESSOR** level. Position comprises 80% research, 20% teaching. Ph.D. and postdoctoral experience in cellular/molecular immunology required. Candidate will be expected to develop an active, contemporary research program with an emphasis on animal disease. Additional duties to include direction of graduate student research and instruction of undergraduate and graduate students. Applicants with interests in immune response to infectious disease and disease control measures are encouraged to apply. Applicants at the Associate Professor level are expected to have an established, extramurally funded research program and a strong publication record. Salary will be commensurate with experience. Full benefits package. Applications accepted until August 1, 2002, or until an acceptable candidate has been identified. Submit letter of application, curriculum vitae, and names and contact information for three references to: **Dr. Vikram N. Vakharia, Chair, Immunologist Search Committee VMRCVM, University of Maryland, 8075 Greenmead Drive, College Park, MD 20742-3711**. This position is available immediately.

The University of Maryland is an Equal Opportunity/Affirmative Action Employer. Minorities and women encouraged to apply.

University of Illinois at Chicago, Department of Chemistry, invites applications for a tenure-track **ASSISTANT PROFESSOR** of biochemistry beginning fall 2002. Appointments at higher levels are possible in exceptional cases. The successful candidate will be expected to carry out a full and vigorous program of innovative research and to contribute to the teaching of graduate and undergraduate students. We will consider outstanding candidates in any area of biochemistry including chemical biology and structural biology. Please submit applications including curriculum vitae; list of publications; summary of past research; plan for future research; and letters of reference from three individuals who know the candidate's work well by June 25, 2002, to: **Wonhwa Cho, Chair, Biochemistry Search Committee, Department of Chemistry (M/C 111), The University of Illinois at Chicago, 845 West Taylor Street, Chicago, IL 60607-7061**. *UIC is an Affirmative Action/Equal Opportunity Employer.*

Be an NCI Cancer Prevention Fellow

THE NATIONAL CANCER INSTITUTE (NCI) sponsors the Cancer Prevention Fellowship Program (CPFP). Its purpose is to train individuals from a multiplicity of health professions and biomedical science disciplines to become leaders in the field of cancer prevention and control.

What will I get out of the program?

- Master of Public Health degree
- NCI Summer Curriculum in Cancer Prevention
- Mentored research opportunities at the NCI
- Professional development and leadership training

What areas of cancer prevention research are available?

- Chemoprevention
- Clinical/Translational Research
- Early Detection/Biomarkers
- Epidemiology
- Ethics and Evidence-Based Decisionmaking
- Intervention Studies
- Laboratory-Based Research
- Primary Prevention
- Social and Behavioral Research
- Statistical Methodology

Am I eligible?

You must have a doctorate degree (M.D., D.D.S., D.O., J.D., Ph.D. or equivalent). Foreign education must be comparable to that received in the United States.

You must also be either a citizen of the U.S. or a resident alien eligible for citizenship within 4 years at the time of application (September 1).

How long is the program?

Fellows are accepted for up to 5 years of training beginning in July. The typical duration is 3 years (year 1: M.P.H.; years 2-3: NCI Summer Curriculum and mentored research).

When are applications due?

Applications are due September 1, 2002, for entry into the program July 1, 2003.

How do I apply?

To receive a catalog*, contact:
Douglas L. Weed, M.D., M.P.H., Ph.D.
Director, Cancer Prevention
Fellowship Program
National Cancer Institute
6130 Executive Boulevard (EPN)
Suite 3109, MSC 7361
Bethesda, MD 20892-7361

* Please provide home address, telephone, e-mail, and where you heard about the program.

Further inquiries:

Mrs. Barbara Redding
Phone (301) 496-8640
Fax (301) 402-4863
E-mail br24v@nih.gov

For more information visit our Web site at:

<http://cancer.gov/prevention/pob/>
<http://resources.nci.nih.gov/links.cfm>

Selection for these positions will be based solely on merit, with no discrimination for non-merit reasons, such as race, color, gender, national origin, age, religion, sexual orientation or physical or mental disability. NIH provides reasonable accommodations to applicants with disabilities. If you need reasonable accommodation during any part of the application and hiring process, please notify us. The decision on granting reasonable accommodation will be handled on a case-by-case basis.



Professor in Cancer-related Bioinformatics

The University of Aarhus, Denmark, is offering a five year position as professor in Cancer-related Bioinformatics. The position is made available by a donation from the Danish Cancer Society and aims at developing and utilizing bioinformatics to study cancer. The position will be placed in relation to a hospital-based functional genomics laboratory, having experience in microarrays and databases on gene expression, and in relation to a newly formed University Center for Bioinformatics. We expect research activities in areas such as modelling of oncogenic intracellular pathways, classification and prediction of human cancers, and genomic linking of susceptibility genes.

A bioinformatics specialist with the ability to collaborate in an environment with both biologists, statisticians, computer specialists and medical staff is favoured. A strong experience with existing bioinformatics tools, proficiency in common computer languages as well as a capacity to develop new tools for data analysis and data mining are requested.

We offer a five year position in an exciting environment, a competitive salary, and assistance with relocation. In addition to his or her own salary the applicant will receive a five year budget for hiring an academic assistant, for secretarial help, and for running expenses in relation to projects. The funding is limited to five years with the possibility for tenure for the right candidate.

Inquiries about the position and salary levels may be made to the dean, Professor Søren Mogensen, tel. +45 8942 1765 or +45 8942 4100, e-mail sm@microbiology.au.dk or to orntoft@kba.sks.au.dk. Further information is available on <http://www.health.au.dk/fakultet/stillingsopslag>.

The application, together with all relevant annexes (see web page), should be sent in 6 copies to the Faculty of Health Sciences, Vennelyst Boulevard 9, 8000 Aarhus C. The application must be at the Faculty not later than midday on 1st august, 2002. The applications should be marked 2002-211/2-2

INTERDISCIPLINARY SCIENTIST - NIH, NIDCD

The National Institute on Deafness and Other Communication Disorders (NIDCD), located in Bethesda, Maryland, is recruiting for a full-time interdisciplinary scientist in the Division of Extramural Research with a background in **biomedical, bioengineering or neuroscience research** for a position focusing on the normal and disordered processes of **balance and the vestibular system**. The incumbent will provide scientific leadership in formulating new research initiatives and in supervising a comprehensive program of basic and clinical research grants and contracts on the vestibular system and the body's other balance control systems. Incumbent provides scientific expertise in the balance and vestibular sciences and serves as a source of technical knowledge in this area.

This appointment confers government benefits. The salary range is from \$66,229 to \$101,742 per annum and is commensurate with education and experience. Appointee must be a U.S. citizen, resident alien or nonresident alien with a valid employment authorization.

Candidates must meet the qualification standards as described in the Office of Personnel Management's Operating Manual: Qualification Standards for General Schedule Positions for the GS-401/403/440/601/602-13/14.

A recruitment bonus of up to 25% may be available to a non-Federal applicant selected for this position, subject to individual approval. A relocation bonus of up to 25% may be available to a permanent Federal employee who must relocate to accept this position, subject to individual approval. Alternatively, applicants may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.

Further information about the position, application procedures and/or qualification requirements may be obtained from <http://careerhere.nih.gov> or by contacting Ms. Jennings at (301) 402-0508 (voice) or TTY (301) 402-1562. Applicants are required to submit a Curriculum Vitae, Optional Application for Federal Employment (OF-612), Resume, Application for Federal Employment (SF-171), OR any other written format to: Patricia Jennings, NIDCD Personnel Office, 31 Center Drive, Building 31, Room 3C-11, MSC 2320, Bethesda, MD 20892-2320.

Applications must be postmarked by **July 15, 2002**. Please read the vacancy announcement carefully and annotate announcement number NIDCD-02-0013 on your application. **NIH IS AN EQUAL OPPORTUNITY EMPLOYER**

POSITIONS OPEN

DIRECTOR Center for Medical, Agricultural, and Veterinary Entomology Gainesville, Florida

This is a Senior Executive Service position with the Agricultural Research Service (ARS), U.S. Department of Agriculture. The Director of the Center for Medical, Agricultural, and Veterinary Entomology (CMAVE) is responsible for providing leadership and direction to six research units conducting investigations in detection and management of insect pests and disease vectors affecting animals, humans, and plants and in crop genetics and environmental quality. Approximately 40 Scientists at CMAVE represent a variety of disciplines including entomology, chemistry, genetics, molecular biology, plant physiology, agronomy, agricultural engineering, botany, microbiology, soil science, and zoology. This position requires considerable flexibility and skill in providing effective research leadership to a diversity of CMAVE programs, many of which are cooperative and multidisciplinary, and involve other ARS laboratories as well as local, state, national, and international government, academic, and private sector laboratories, institutions, and organizations. The Center Director will provide systematic, coordinated planning to achieve broad, goal-oriented research results and to ensure transfer of technology to producers, consumers, and industry. The incumbent must establish and maintain effective work relationships with federal and state action and regulatory agencies, cooperators, and representatives of consumers and industry groups. A Ph.D. in a discipline related to the position is highly desirable. Salary range is \$122,000 to \$138,000. For program information, please contact: **Dr. Karl Narang, Area Director; Telephone: 706-546-3311; e-mail: skn@saa.ars.usda.gov.** The complete vacancy announcement and information about how to apply is found at **website: <http://www.afm.ars.usda.gov/divisions/hrd/vacancy/>** or contact **Human Resources Division; Telephone: 301-504-1448.** Applications must be received by June 24, 2002. *USDA, ARS is an Equal Opportunity Employer.*

Pharmacology faculty position: A full-time position at the **ASSISTANT or ASSOCIATE PROFESSOR** level is available in the Department of Pharmacology of the College of Medical Sciences at Nova Southeastern University. The candidate's responsibilities will include participation in team-taught pharmacology courses to students in medical, dental, optometry, and physician assistant programs. The position requires a Ph.D. in pharmacology or an M.D. Individuals with teaching experience or interests in autonomic, cardiac, and renal pharmacology and/or antimicrobials and chemotherapeutics are particularly encouraged to apply. Although primarily a teaching position, opportunities to engage in research do exist. The College of Medical Sciences is located in the Health Professions Division facility on the Ft. Lauderdale campus. Salaries are competitive and dependent upon qualifications. Fringe benefits are generous. Please send letter of interest; curriculum vitae; copies of graduate transcripts; and the names, addresses, and telephone numbers of three references to: **Position Number 999017, Nova Southeastern University, Office of Human Resources, 3301 College Avenue, Ft. Lauderdale, FL 33314.** *Nova Southeastern University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION in human genomics to work on the development and application of microarray and other high-throughput methods for examination of SNP polymorphisms in the child health and development studies population as a collaboration with **Dr. Cohn** at the Public Health Institute and **Dr. Mathies** in Chemistry, University of California, Berkeley. Experience in molecular biology/biochemistry, human genomics, and instrumental analysis desired. Send résumé and three letters of recommendation to: **Barbara Cohn, Public Health Institute, 2001 Addison Street, Second Floor, Berkeley, CA 94704.** *The Public Health Institute is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN



DIRECTOR, CENTER ON AGING, University of Kansas Medical Center. Seeking applications and nominations for Chief Administrator of the Center on Aging. Responsibilities: Plan and manage interdisciplinary, geriatric-focused educational, research, and service programs; oversee budgetary and administrative enterprise; and attract premier aging-related grants. Minimum qualifications: M.D. or Ph.D., relevant administrative and academic experience, and established research and publication record in geriatrics. Applications/inquiries: For full position announcement and application instructions, contact: **Debra Brogden, Committee Secretary, University of Kansas Medical Center, 3901 Rainbow Boulevard, Kansas City, KS 66160. Telephone: 913-588-1440; FAX: 913-588-1412; e-mail: dbrogden@kumc.edu.** Screening commences June 25, 2002. *Affirmative Action/Equal Opportunity/Title IX Institution.*

RESEARCH POSITION Proteomics

Instructor position is available in an interdisciplinary research group that is using proteomics to study signal transduction in membrane domains like caveolae and coated pits. The successful individual will work jointly with **Drs. Y. Zhao, R. Anderson, and M. White** with the goal of identifying new signaling pathways in model cells. A Ph.D. degree in biochemistry or molecular biology and two years of relevant postdoctoral experience in the areas of biochemistry, signal transduction, or molecular biology is preferable. Salary is competitive and commensurate with qualifications and experience. E-mail application and three references to **e-mail: richard.anderson@utsouthwestern.edu** or mail to: **Dr. Richard G. W. Anderson, Department of Cell Biology, UT Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75390-9039.** *The University of Texas Southwestern Medical Center is an Equal Opportunity/Affirmative Action Employer.*

TENURE-TRACK POSITIONS

University of Louisville

James Graham Brown Cancer Center

The James Graham Brown Cancer Center of the University of Louisville is in the process of a major program expansion in molecular and cell biology of cytokines with an emphasis on the role of chemoattractants in cancer. Current areas of interest include but are not limited to tumor metastasis, angiogenesis, and immunotherapy. Two tenure-track positions are available, one with an endowed chair for a **SENIOR INVESTIGATOR** and one at **ASSISTANT, ASSOCIATE, or FULL PROFESSOR** level depending on qualifications. Applicants must have an M.D. and/or Ph.D., significant postdoctoral research experience, and a strong publication record. Both will be expected to establish independently funded research programs. Successful candidates will join an active group of Investigators working on tumor immunotherapy, chemoattractant receptor regulation of inflammatory processes, molecular modeling of DNA and proteins, chemokines in stem cell biology, signal transduction, and oligonucleotide-mediated gene therapy. The Brown Cancer Center houses excellent shared facilities for molecular and cell biology including flow cytometry and cell sorting, molecular modeling, microarray, proteomics, surface plasmon resonance spectroscopy, and transgenic mice. Please send curriculum vitae with bibliography, a synopsis of research interests, and names and telephone/e-mail addresses of at least three references to:

**Dr. Bodduluri Haribabu
James Graham Brown Cancer Center
University of Louisville
529 South Jackson Street
Louisville, KY 40202
Telephone: 502-852-7503
E-mail: h0bodd01@gwise.louisville.edu**

POSITIONS OPEN

THE UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER

ASSISTANT PROFESSORS: The Department of Physiology invites applications from outstanding Scientists with Ph.D., M.D., or equivalent degrees for two tenure-track Assistant Professor positions. Of particular interest are candidates who will develop independent research programs in integrative biology using genetic engineering approaches to study physiological processes in tissues and whole animals. Additional areas of interest include molecular and biophysical approaches to cell physiology involving the fields of motility and the cytoskeleton in addition to transport and ion channels. However, the excellence of the successful candidates is more important than the particular area of research. These positions are part of the continuing growth of the Department at one of the country's leading academic medical centers and will be supported by significant laboratory space, competitive salaries, and exceptional start-up packages. The UT Southwestern faculty includes four Nobel Prize winners and 11 members of the National Academy of Sciences and conducts more than 2,000 research projects annually with support totaling more than \$200 million. Applicants should submit curriculum vitae, a brief statement of research plans, and arrange to have three letters of reference sent to: **James T. Stull, Ph.D., Department of Physiology, The University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75390-9040.** *UT Southwestern strongly encourages applications from women, minorities, and people with disabilities. An Affirmative Action/Equal Opportunity Employer.*

The Department of Biomedical Science at Florida Atlantic University is seeking to hire a senior-level Gross Anatomist to coordinate the gross anatomy course in a developing medical school. The ideal applicant will have a minimum of three to five years of experience as the coordinator of a medical school gross anatomy course. It is desirable but not essential that the applicant have an ongoing research program. The selected individual must be qualified to be appointed at the **FULL PROFESSOR** level. Depending on qualifications, this appointment will be a tenured position (nine-month salary guarantee) or a renewable, nontenured contract position (12-month salary guarantee). The deadline for application is June 30, 2002. Position Number 239952. Contact: **Dwight W. Warren, Ph.D., M.S. Ed., Associate Dean for Biomedical Programs, Chair, Biomedical Science, Florida Atlantic University, Charles E. Schmidt Biomedical Science Center, 777 Glades Road, P.O. Box 3091, Building 71, Room 145, Boca Raton, FL 33431-0991.** *FAU is an Equal Opportunity/Equal Access Institution.*

EXECUTIVE DIRECTOR Botanical Society of America

The Botanical Society of America seeks Executive Director for its new headquarters at Missouri Botanical Garden in St. Louis. Oversees daily operations, staff, budgeting, strategic planning, outreach initiatives, and fundraising. Qualifications include a Master's degree in a related area. Ph.D. preferred plus seven years of relevant experience. Exceptional leadership and communication skills required. We offer an outstanding benefits package. Apply to: **Missouri Botanical Garden, Human Resources Division, Attention: BSA Search Committee, P.O. Box 299, St. Louis, MO 63166. E-mail: jobs@mobot.org; website: <http://www.botany.org>.** Position is open until filled. *Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately to investigate the role of leucine-rich proteoglycans in cell-extracellular matrix signaling in the cornea using knockout mice (*JCB* 141:1277) and corneal cell cultures. The successful candidate must be self-motivated and have a strong background in cell signaling. Send curriculum vitae and three references to: **Dr. Shukti Chakravarti, Department of Medicine, Johns Hopkins University, Ross 935, 720 Rutland Avenue, Baltimore, MD 21205. E-mail: shchakrav@jhmi.edu.**

Senior Specialist Scientist Cancer Epidemiologist

Western Cape, South Africa

The Medical Research Council (MRC) strives to improve the nation's health status and quality of life through relevant and excellent health research aimed at promoting equity and development.

The above position is available at the PROMEC Unit at the MRC head office in Parow. The successful candidate will form part of a multidisciplinary research team and will be involved in research activities related to cancer epidemiology in the Transkei and the Western Cape regions of South Africa.

Key responsibilities of this position entail: ● to act as the Sub-programme Leader in the Sub-programme on Cancer Registry, Epidemiology and Early Detection of the PROMEC Unit, which forms an integral part of the CANSA/MRC Oesophageal Cancer Research Consortium - this sub-programme is a focal point of growth and innovation in the PROMEC Unit (to oversee the development of a population-based cancer registry and surveillance system for the Western Cape and to maintain and further develop the existing cancer registry of the PROMEC Unit in the Eastern Cape Province ● to collaborate with other regional cancer registries, hospitals and cancer researchers, nationally and internationally, particularly with the International Agency for Research on Cancer (IARC) ● to collate and analyse information about cancers diagnosed in the Transkei region and the Western Cape to develop strategies and policies for the prevention, early detection, treatment and control of cancer, particularly oesophageal cancer ● to develop,

implement, analyse and interpret questionnaires to be used in case-control studies of oesophageal cancer.

The position therefore calls for a dedicated, hard-working person with experience in cancer epidemiology and the ability to initiate, plan, co-ordinate, undertake, manage and execute research in order to establish the incidence and related risks of human oesophageal and other cancers in the above mentioned areas of South Africa.

The minimum qualifications are a PhD or MB Ch B (M Med) in Epidemiology (Oncology/Public Health) and a minimum of two years experience in the application of epidemiological methods. Computer literacy, including word processing, database experience with the Cancer Registry Programme (CANREG), design of case-control studies, development of questionnaires and statistical analyses, will be strong recommendations. The ability to speak Xhosa will be an advantage.

In return, the MRC offers a total cost of employment remuneration package which includes organisation contribution towards fringe benefits. The MRC is committed to Employment Equity and the embracing of diversity.

Please submit a detailed CV to: Ms Elsie Venter or Mrs Glenda Schroeder, Human Resources Directorate, MRC, PO Box 19070, Tygerberg 7505 or fax +27 21 938-0829. E-mail can be sent to glenda.schroeder@mrc.ac.za

Closing date: 28 June 2002.



Building a healthy nation through research

ERA - 4691



RESEARCH FELLOW Transplant Biology Program Rochester, Minnesota, U.S.A

A postdoctoral research position is available in the laboratory of Dr. Amy Tang of the Transplant Biology Program at Mayo Clinic in Rochester, Minnesota, (ref *Cell* 90:459-467, 1997; *Genetics* 148:277-286, 1998; *Development* 128:801-813). Applicants must have a Ph.D. and/or M.D. and should have experience in the fields of signal transduction, molecular biology, biochemistry, genetics, or pharmacogenomics. Experience with *Drosophila*, forward and reverse genetic screens, and mutant analyses is highly desirable.

Salary will be determined by the successful candidate's experience. There is an attractive benefit package. Mayo Clinic is a not-for-profit organization. Mayo integrates research with clinical practice and education in a multi-campus environment. For further information please visit <http://www.mayo.edu/research/>.

Applications, including curriculum vitae and bibliography, summary of past accomplishments, and the names of three references, should be sent to:

Dr. Amy Tang
Transplantation Biology
Medical Sciences 2-85
Mayo Clinic, 200 First Street SW
Rochester, MN 55905
507-538-1878
Tang.Amy@mayo.edu

Mayo Foundation is an affirmative action and equal opportunity employer and educator.

Tenure-Track Faculty Position Cutaneous Biology Feinberg School of Medicine of Northwestern University

The Department of Dermatology invites applications for a full-time tenure-track appointment at the rank of Assistant Professor or higher. Candidates must hold a Ph.D., or a combined M.D./Ph.D. degree and relevant postdoctoral experience with a strong record of excellence in research. The start date is negotiable. Although the research area in cutaneous biology is open, preference will be given to applicants with significant experience utilizing genetic approaches to study signaling mechanisms regulating development of epithelia and the immune system. Individuals with active grants in this area will be given preference. The successful candidate will be expected to maintain and expand an established, independent, externally funded research program. The individual will also hold a joint appointment in a basic science department with access to graduate students, and is expected to participate in their teaching program. A competitive salary, start-up package, and new laboratory space will be provided.

To insure full consideration, submit the following material: (1) current curriculum vitae and list of publications and grant support; (2) brief statement of research interests; and (3) contact information for three references no later than July 31, 2002 to **Dr. John Ansel, Chair, Department of Dermatology, Feinberg School of Medicine, Northwestern University, 675 North St. Clair Street, Suite 19-150, Chicago, IL 60611. E-mail: j-ansel@northwestern.edu**. Please refer to Academic Search Number **P-231-02**.

Northwestern University is an Equal Opportunity/Affirmative Action Employer. Hiring is contingent upon eligibility to work in the United States. Women and minorities are especially encouraged to apply.

POSITIONS OPEN

ASSISTANT PROFESSOR Molecular Biologist

The Department of Otolaryngology at the University of Colorado Health Sciences Center seeks to fill a full-time, tenure-track position at the level of an Assistant Professor, which begins in September of 2002. Candidates should have a Ph.D. and a research interest and experience in molecular biology/genetics or biochemistry of hearing and at least two years of post-doctoral experience. Preference will be given to candidates with track records of peer-reviewed publications and successful grant activity or the potential for such activity. Responsibilities include developing an independent research program that will lead to external funding; mentoring student research; and participating in departmental, school, and university activities. The successful applicant will have the opportunity to develop research collaborations with senior research faculty within the Department and with other Investigators within the Center. Salary is competitive and negotiable depending on qualifications and experience. The review process will begin immediately and remain open until a suitable candidate is identified. Applicants should submit a cover letter stating research interests and describing how qualifications and experiences fit position requirements, curriculum vitae, reprints of selected publications; and a list of three references to: **Chair of Search Committee, Department of Otolaryngology, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, B205, Denver, CO 80262.**

The University of Colorado Health Sciences Center is an Equal Opportunity/Affirmative Action Employer.

RADIOIMMUNOASSAY LABORATORY UNIT MANAGER: Population Council, an international biomedical reproductive health research organization, seeks Manager to oversee the conduct of radioimmunoassays and/or immunoassays in compliance with GLP regulations. Will provide quantitative bioanalytical support for compounds in preclinical and clinical development. Additional responsibilities include assay development and clinical sample analysis including troubleshooting and technical support, coordination of work assignments for laboratory staff, report writing, maintenance of laboratory equipment, and monitoring of data. Requires M.S. or Ph.D. in biochemistry/analytical chemistry or related field; minimum of three years of assay development, validation, and clinical sample analysis experience. Strong knowledge of GLPs and analytical method development experience is desirable. Please send curriculum vitae and cover letter referencing Job Number 24/02 to: **K. Bailey, Human Resources Specialist, Population Council, CBR, 1230 York Avenue, New York, NY 10021. FAX: 212-327-8776; e-mail: kbailey@popcouncil.org.** Full job details at [website: http://www.popcouncil.org](http://www.popcouncil.org). *Affirmative Action/Equal Opportunity Employer; Minorities/Females.*

POSTDOCTORAL AND GRADUATE RESEARCH ASSISTANT POSITIONS Mathematical Cell Biology

An immediate Postdoctoral position is available in mathematical cell biology at University of Nebraska Omaha to investigate mathematical modeling of intracellular signal transduction. This NIH-funded project involves Boolean modeling of complex biochemical pathways and will focus on the development of exact analytical methods to analyze general Boolean networks. For further information, go to [website: http://www.unomaha.edu/~wwwmath](http://www.unomaha.edu/~wwwmath).

A **POSTDOCTORAL RESEARCH POSITION** in cellular electrophysiology is immediately available in the Center for Molecular Cardiology to study voltage-gated ion channels in the heart. Applicants should possess an M.D. and/or Ph.D. and have training in electrophysiology of ion channels. Interested individuals should send curriculum vitae and names of three references to: **Dr. Steven Marx, Cardiology/Medicine, Columbia University, 630 West 168th Street, New York, NY 10032. E-mail: sm460@columbia.edu.** *Columbia University is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN



DONALD DANFORTH
PLANT SCIENCE CENTER

COMPUTATIONAL BIOLOGY AND BIOCHEMISTRY

The Donald Danforth Plant Science Center, an independent research institute in St. Louis, Missouri, announces a position for an entry- or midlevel **PRINCIPAL INVESTIGATOR** in computational biology and biochemistry with particular interest in modeling of proteins in metabolic and/or regulatory pathways. The successful candidate will join a growing group of Structural Biologists, Biochemists, Cell Biologists, and Geneticists in fundamental and applied discoveries in plant biology. The Danforth Center is located in a strong scientific community that emphasizes plant and life sciences. Opportunities for adjunct faculty positions in partnering academic institutions. See [website: http://www.danforthcenter.org](http://www.danforthcenter.org) for additional information. Applicant should submit curriculum vitae, selected reprints, and a description of future research to: **Ms. Kathleen Mackey, Administrative Assistant, Donald Danforth Plant Science Center, 975 North Warson Road, St. Louis, MO 63132. E-mail: kmackey@danforthcenter.org.** *The Donald Danforth Plant Science Center is an Equal Opportunity/Affirmative Action Employer and encourages applications from underrepresented groups including minorities, women, and people with disabilities.*

U.S. Department of Agriculture, Agricultural Research Service, Southeast Poultry Research Laboratory, Athens, Georgia, has openings for three full-time **RESEARCH** positions: two Microbiologists and one Veterinary Medical Officer (VMO) responsible for conducting basic and applied research on avian influenza, avian pneumovirus, and poultry enteritis mortality syndrome. The Scientist will be part of a multidisciplinary team of Scientists. Applicants must possess a Ph.D. degree in a field related to the position. The two Microbiologists will utilize knowledge and skills in molecular biology and infectious clones to develop diagnostic tests, novel vaccines, and study disease pathogenesis. The VMO will utilize knowledge and skills in gross and microscopic pathology to study disease pathogenesis. *Candidates must be U.S. citizens; salary commensurate with experience (\$54,275 to \$99,150).* For application procedures and forms, contact: **Genell Powers; Telephone: 706-546-3029.** For information about the research projects, contact: **David Swayne; Telephone: 706-546-3433.** Applications in response to this advertisement must be marked (ARS-X2S-2230 Microbiologist), (ARS-X2S-2226 Microbiologist), and (ARS-X2S-2227 VMO) position; applications must be postmarked by July 13, 2002. Full text vacancy announcement may be obtained via [website: http://www.afm.ars.usda.gov/divisions/hrd/index.html](http://www.afm.ars.usda.gov/divisions/hrd/index.html). *USDA/ARS is an Equal Opportunity Provider and Employer.*

POSTDOCTORAL POSITION at the Eye Research Institute of Oakland University to study cyclic GMP signaling in retina. The selected candidate will purify and characterize retinal membrane proteins phosphorylated in response to cyclic GMP and study regulation of soluble guanylate cyclase. Applicants must have expertise in protein biochemistry and enzyme kinetics. Send curriculum vitae and contact information of three references to: **Ari Sitaramayya, Ph.D., Eye Research Institute, Oakland University, Rochester, MI 48309-4480 U.S.A. E-mail: ari@oakland.edu.**

POSTDOCTORAL POSITIONS available immediately to study the mechanism of action of cytochrome oxidase. Preference will be given to candidates with experience in one or more of the following areas: heme proteins, epr and ft-ir spectroscopy, enzymology. Send résumé to: **Dr. Marian Fabian, Department of Biochemistry and Cell Biology, MS140, Rice University, Houston, TX 77005-1892. E-mail: fabian@bioc.rice.edu.** *Equal Opportunity Employer.*

POSITIONS OPEN

RESEARCH SCIENTIST Molecular Genetics

A Research Scientist position is available immediately in the Molecular Genetics Division of our Musculoskeletal Disease Center. Projects include mapping and identification of candidate genes for the musculoskeletal system in animal and human studies using state-of-the-art molecular genetic techniques. Candidates must have a Ph.D. in molecular biology/genetics with experience in linkage or association studies, statistics, and state-of-the-art molecular biology techniques to identify candidate genes and evaluate their functions. A strong record of scientific publications in molecular genetics and demonstrated ability to compete for external grant funding are essential. Our molecular genetics division focuses on mouse genetics and human genetic diseases with special emphasis on osteoporosis. Salary and benefits are competitive and the possibility exists for a long-term position. Most of our Research Scientists are also nominated for research faculty positions at Loma Linda University, one of our affiliated educational institutions. Send curriculum vitae with cover letter, salary requirements, and names/e-mail addresses of three references to: **Carol Farrell, Director of Human Resources, LLVARE, P.O. Box 11238, San Bernardino, CA 92423-1238. E-mail: hrm@llvare.org.** *Equal Opportunity Employer/Affirmative Action Plan Employer.*

ASSISTANT PROFESSOR OF RESEARCH position available immediately to join a cellular and molecular immunology group in the Division of Pulmonary and Critical Care Medicine at the University of Virginia, studying mechanisms of acute and chronic lung disease mediated by T cells in a transgenic model ([website: http://www.faculty.virginia.edu/enelowlab](http://www.faculty.virginia.edu/enelowlab)). M.D. and/or Ph.D. required and minimum of five years of experience in relevant fields to develop independent line of investigation pertaining to TNF-alpha- and interferon-gamma receptor signaling in lung epithelial cells upon T cell recognition. Please forward curriculum vitae to: **Ruth P. Cragg, Division Administration, University of Virginia Health System, Pulmonary and Critical Care Division, P.O. Box 800546, Charlottesville, VA 22908. FAX: 434-924-9692; e-mail: rpc7p@virginia.edu.** Position open until filled. *The University of Virginia is an Equal Opportunity/Affirmative Action Employer. Females and minorities are encouraged to apply.*

STAFF SCIENTIST Scientific Imaging Manager Number KSW-13683

Fred Hutchinson Cancer Research Center

Exciting opportunity at a premier cancer research center in Seattle, Washington. Oversee confocal and deconvolution microscopy imaging facility, hire and supervise staff, oversee daily operations, supervise the collection and analysis of data, assist and collaborate with Researchers in experimental design and imaging applications, and attend meetings and conferences. Ph.D. in molecular biology, genetics, or like field and three years of related or equivalent experience and skills. Salary: dependent on experience plus excellent benefits. See [website: http://www.fhcr.org](http://www.fhcr.org) for details. E-mail cover letter and résumé to [e-mail: kwatanab@fhcr.org](mailto:kwatanab@fhcr.org) including job number.

RESEARCH SCIENTIST POSITIONS Columbia University

Research Scientist positions immediately available in NIH-funded laboratory to investigate molecular mechanisms responsible for integration of signaling pathways in lymphocyte activation/differentiation. Ph.D. or M.D. degree with strong background in molecular biology, protein biochemistry, and immunology required. Experience with transgenic and knockout mice a plus. Send curriculum vitae and names of three references to: **Dr. Alessandra Pernis, Department of Medicine, Columbia University, 630 West 168th Street, New York, NY 10032. FAX: 212-305-4478; e-mail: abp1@columbia.edu.** *Columbia University is an Affirmative Action/Equal Opportunity Employer.*

University of Pennsylvania

Postdoctoral Positions in Cancer Biology

Postdoctoral positions are available to study the following exciting areas of cancer research: cancer cell biology (Craig B. Thompson, M. Celeste Simon, J. Alan Diehl, and Michael F. Olson), signal transduction (Gary Koretzky, Steven L. Reiner, Xianxin Hua, and Yongwon Choi), translational research and the study of the malignant phenotype (Carl June, Mark Greene, and Robert H. Vonderheide), and GI cancers/cancer genomics (Barbara Weber and Anil Rustgi).

The Abramson Family Cancer Research Institute has a highly interactive research environment and state-of-the-art facilities including core laboratories for transgenic/knock-out technology, microarray analysis of gene expression, nucleic acid and protein sequencing, confocal microscopy and imaging, and flow cytometry. Excellent stipends and benefits packages including funds for professional travel are available.

Interested candidates should send curriculum vitae and names and addresses of three references to:

**M. Celeste Simon Ph.D., Assoc. Investigator
AFCRI & Howard Hughes Medical
Institute, celeste2@mail.med.upenn.edu
and**

**J. Alan Diehl, Ph.D. Assistant Professor
AFCRI, adiehl@mail.med.upenn.edu**

**University of Pennsylvania
School of Medicine**

**456 BRB II/III
421 Curie Boulevard
Philadelphia, PA 19104-6160**

www.uphs.upenn.edu/abramson

Affirmative Action / Equal Opportunity Employer



THE NATIONAL CENTRE FOR SCIENTIFIC RESEARCH "DIMOKRITOS" INVITES APPLICATIONS FOR THE POSITION OF THE:

DIRECTOR GENERAL

Candidates are required to have the qualifications of a Senior Researcher of international calibre and approved management experience compatible with, and relevant to, the research disciplines and other scientific activities of the Institutes of the Research Establishment which are:

1. Institute of the Physical Chemistry
2. Institute of Radioisotopes and Radiodiagnostic Products
3. Institute of Informatics and Telecommunications
4. Institute of Microelectronics
5. Institute of Material Science
6. Institute of Biology
7. Institute of Nuclear Physics
8. Institute of Nuclear Technology and Radiation Protection

Candidates are expected to:

- conduct research and develop potential applications in various internationally active domains,
- coordinate relevant activities or research groups,
- participate in research/technology policy planning
- be able to attract external funds, and support research and technological development activities, thus, contributing to the growth and the excellence of the Research Centre.

Applicants must be citizens of any European Union country. They must have a sufficient knowledge of the Greek language and they should be up to 62 years old on 8 April 2002.

Contracts are of five years duration on a full-time basis.

Applicants should forward their application and resume plus

publications and citations list etc (six copies) to the:

General Secretariat of Research and Technology

Research Center Supervision Directorate

14-18 Messogion Str., GR - 11527 Athens, GREECE,

or P.O.Box 14631, GR - 11510 Athens, GREECE, Tel.: + 30 10 6911122

Information: E. Goussia, ext. 325, e-mail: egou@gsrt.gr

E. Varsou, ext. 360, e-mail: evars@gsrt.gr

Closing date: 17th June 2002



**CREIGHTON
UNIVERSITY**

**CANCER RESEARCH/MOLECULAR
GENETICS/MOLECULAR BIOLOGY**

**Two Faculty Positions
Assistant/Associate Professors**

As part of an expansion in Cancer Research, Creighton University invites applications for two tenure-track positions. The area of interest is molecular genetics/molecular biology of cancer. The successful applicants will have the opportunity to collaborate with **Henry T. Lynch, M.D.** on his on-going projects in hereditary cancer research. Applicants should have the following qualifications: Ph.D., M.D. or M.D./Ph.D. degrees; postdoctoral training, evidence of research accomplishment, and promise to become a leader in the area of cancer molecular genetics. Successful candidates will be expected to conduct a vigorous independent research program and to participate in teaching and training students and fellows. Appointments in one or more departments are possible. Laboratory space, equipment, generous start-up, and the opportunity for on-going funding through an institutional grant from the State of Nebraska Cancer and Smoking Disease Research Program will be available. Applicants should send a curriculum vitae, a brief outline of their research program and future research plans, a statement of teaching interests and arrange for three letters of reference to be sent to: **Roderick Nairn, Ph.D., Cancer Molecular Genetics Search Committee Chair, Medical Dean's Office, Creighton University School of Medicine, 2500 California Plaza, Omaha, NE 68178.**

Applications will be screened immediately and will continue to be accepted until the position is filled.

*Creighton University is an Affirmative Action/
Equal Opportunity Employer.*

INTERDISCIPLINARY SCIENTIST - NIH, NIDCD

The National Institute on Deafness and Other Communication Disorders (NIDCD), located in Bethesda, Maryland, is recruiting for a full-time interdisciplinary scientist in the Division of Extramural Research in the area of **molecular genetics and molecular biology** of hearing and hearing disorders. The incumbent will provide scientific leadership in formulating and supervising a comprehensive program of grant and contract research support and will actively participate in the evaluation of ongoing research in the molecular biology and molecular genetics of hereditary hearing impairment. Incumbent is innovative in developing new research areas related to the mission of the Institute. Contributes to the overall analysis and administration of this program and provides scientific expertise in the areas of molecular biology and molecular genetics and serves as a source of technical knowledge in this area.

This appointment confers government benefits. The salary range is from \$66,229 to \$101,742 per annum and is commensurate with education and experience. Appointee must be a U.S. citizen, resident alien or nonresident alien with a valid employment authorization.

Candidates must meet the qualification standards as described in the Office of Personnel Management's Operating Manual: Qualification Standards for General Schedule Positions for the GS-401/403/440/601/602-13/14.

A recruitment bonus of up to 25% may be available to a non-Federal applicant selected for this position, subject to individual approval. A relocation bonus of up to 25% may be available to a permanent Federal employee who must relocate to accept this position, subject to individual approval. Alternatively, applicants may be eligible for appointment in the Commissioned Corps of the U.S. Public Health Service.

Further information about the position, application procedures and/or qualification requirements may be obtained from <http://careerhere.nih.gov> or by contacting **Ms. Jennings at (301) 402-0508 (voice) or TTY (301) 402-1562**. Applicants are required to submit a Curriculum Vitae, Optional Application for Federal Employment (OF-612), Resume, Application for Federal Employment (SF-171), OR any other written format to: **Patricia Jennings, NIDCD Personnel Office, 31 Center Drive, Building 31, Room 3C-11, MSC 2320, Bethesda, MD 20892-2320.**

Applications must be postmarked by **June 10, 2002**. Please read the vacancy announcement carefully and annotate announcement number NIDCD-02-0012 on your application. **NIH IS AN EQUAL OPPORTUNITY EMPLOYER**

POSITIONS OPEN



PROTEOMICS DIRECTOR PhageTech Inc.

PhageTech, a private biotechnology company located in Montreal, Canada, which is developing novel antimicrobial drugs based on phage genomics, is recruiting for a position of Proteomics Director. The successful candidate will be responsible for bacterial target identification and development and will manage a team of five Scientists. Qualified candidates will have a Ph.D. in biology or biochemistry with management experience and experience in target characterization or assay development; familiarity with enzymology, mass spectroscopy analysis, ligand/receptor analysis, or bacterial physiology would be an asset. Please forward your curriculum vitae to e-mail: info@phagetechnology.com or mail to: PhageTech Inc., Human Resources, 7170 Frederick Banting, Second Floor, St. Laurent, QC H4S 2A1 Canada. FAX: 514-332-6033.

RESEARCH ASSOCIATE

To direct hour-to-hour activities of a research laboratory focused on epithelial biology of intestinal epithelia as it relates to eukaryotic-prokaryotic interactions and to interactions between inflammatory cells and epithelial cells. Direction of technicians and Postdoctoral Fellows as well as direct participation in the projects would be necessary and thus a broad background in the above fields would be optimal. The laboratory will be transferring to Chicago summer 2002 and will be adjacent to other laboratories focused on epithelial biology of the intestine. The Principal Investigator has been active in the above areas for several years, is well funded via NIH, and will serve as Dean of the School of Medicine and Biological Sciences Division. Please send curriculum vitae with cover letter and direct two letters of reference to:

James L. Madara, M.D.
Dean, Division of the Biological Sciences and
the Pritzker School of Medicine
Vice President for Medical Affairs
The University of Chicago
5841 South Maryland Avenue, MC 1000
Chicago, IL 60637

Applications should be received by July 1, 2002. The University of Chicago is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSTDOCTORAL POSITION

University of Pennsylvania School of Medicine

NIH-funded Postdoctoral position is available to study the response cells to hypoxia and the regulation of VEGF and hypoxia-inducible factor-1 α in cancer cells (*Cancer Research* 60:5879, 2000; *J. Biol. Chem.* 276:9519, 2001). Recent Ph.D. graduates with background in molecular biology and with animal experience are encouraged to apply. Send curriculum vitae with three references to: Amit Maity, M.D., Ph.D., University of Pennsylvania School of Medicine, 195 John Morgan Building, 3620 Hamilton Walk, Philadelphia, PA 19104. E-mail: maity@mail.med.upenn.edu. University of Pennsylvania is an Affirmative Action/Equal Opportunity Employer.

RESEARCH FELLOW POSITIONS available to study the biochemical and molecular aspects of cell-cell and cell-matrix interactions and signal transduction in leukocytes. Representative projects (funded by NIH) include identifying signaling proteins responsible for a novel leukocyte deficiency as well as understanding the roles of integrin and protease receptors in several disease models. To apply, send curriculum vitae and three references to: Holland Laboratory, American Red Cross, 15601 Crabbs Branch Way, Rockville, MD 20855. E-mail: zhangl@usa.redcross.org. Equal Opportunity Employer. Minorities/Females/Disabled/Veterans.

POSITIONS OPEN

U.S. Department of Agriculture, Agricultural Research Service, Southeast Poultry Research Laboratory, Athens, Georgia, has an opening for a full-time **RESEARCH PHYSIOLOGIST** responsible for conducting basic and applied research on the physiologic impact (emphasis on endocrinologic) of molting on *Salmonella enteritidis* contamination of chicken eggs. The incumbent will (1) utilize knowledge and skills in endocrinology and reproductive physiology to identify and develop methods to recycle laying hens without increasing the risk for production of *Salmonella enteritidis*-contaminated eggs, and (2) the incumbent will define physiological and physiological alterations that occur in the hen during feed withdrawal to induce molt verses alternative molt procedures. Knowledge of reproductive physiology and endocrinology, biochemistry, statistics, and poultry production is desirable. Candidates must be U.S. citizens and Ph.D. degree related to the position is preferred. Salary commensurate with experience (\$54,275 to \$99,150). For application procedures and forms, contact: Genell Powers; Telephone: 706-546-3029. For information about the research project, contact: David Swayne; Telephone: 706-546-3433. Applications in response to this advertisement must be marked ARS-X2S-2237 and applications must be postmarked by June 13, 2002. Full text vacancy announcement may be obtained via website: <http://www.afm.ars.usda.gov/divisions/hrd/index.html>. USDA/ARS is an Equal Opportunity Provider and Employer.

POSTDOCTORAL POSITION

Drosophila Mutagenesis Massachusetts General Hospital/ Harvard Medical School

My laboratory is developing novel technologies for the high-throughput generation of mutant *Drosophila* strains (e.g., *Genetics* 156:1169-1173, 2000). These techniques will be useful for a number of functional genomic and genetic applications including the systematic recovery of knockout mutations in genes identified by microarray analysis and to obtain point mutations in splice-specific variants of known genes. A Postdoctoral position is available for a motivated individual who enjoys developing and optimizing new research techniques. Experience with *Drosophila* genetics and/or molecular biology techniques required. Send curriculum vitae, a summary of research interests, and three letters of recommendation to: Charles Dearolf, Ph.D., Associate Professor, Massachusetts General Hospital, Jackson 1402, 55 Fruit Street, Boston, MA 02114. E-mail: cdearolf@partners.org.

POSTDOCTORAL POSITION to study molecular deficiency, DNA repair, and protein interaction in premature aging syndromes. Candidate should have strong background in DNA damage/repair methodology, general molecular biology, and/or cellular biology. Position limited to M.D.s and Ph.D.s with less than five years of postdoctoral experience. Forward curriculum vitae and three letters of recommendation to: Vilhelm A. Bohr, M.D., Ph.D., Laboratory of Molecular Gerontology, Gerontology Research Center, NIA, 5600 Nathan Shock Drive, Box 1, Baltimore, MD 21224-6825. For further information, e-mail Dr. V. Bohr, Chief LMG; e-mail: vbohr@nih.gov.

NIH is an Equal Opportunity Employer.

POSTDOCTORAL RESEARCH FELLOW interested in molecular basis of cerebral energy utilization and failure. Laboratory focus is on conditions that cause neurological disorders using molecular genetics, biochemistry, functional and metabolic brain imaging of transgenic/knockout animal models, and experimental therapeutics. Training and experience in molecular biology or biochemistry are required. Send curriculum vitae to: Darryl C. DeVivo, M.D., Columbia University's Division of Pediatric Neurology, Neurological Institute, Room 201, 710 West 168th Street, New York, NY 10032. E-mail: dcd1@columbia.edu. Columbia University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN



Pennington Biomedical Research Center, a Louisiana State University facility, is accepting applications for **RESEARCH ASSOCIATE** and **POSTDOCTORAL RESEARCHER** positions. For information on employment options, see our website: <http://www.pbrc.edu>.

Pennington Biomedical Research Center is an Equal Opportunity Employer.

One POSTDOCTORAL POSITION at Oregon State University in the Department of Chemistry. Must have a background in biological mass spectrometry. The applicant is responsible for research on protein structural analysis using H/D exchange and electrospray mass spectrometry to elucidate structures. Applicants must have a Ph.D. in biochemistry, organic chemistry, or a related field that qualifies the applicant to conduct research in structural biology. Experience in high-pressure liquid chromatography and mass spectrometry of biomolecules is highly desired. Four years of research experience including research leading to the Doctoral thesis is required. This position is funded through grant funds. Please send résumé, a letter of interest, list of publications, and two letters of recommendation to: Professor Max L. Deinzer, Department of Chemistry, 153 Gilbert Hall, OSU, Corvallis, OR 97331-4003. Telephone: 541-737-1773; FAX: 541-737-0497; e-mail: deinzer@orst.edu. For full consideration, apply by June 15, 2002. OSU is an Affirmative Action/Equal Opportunity Employer.

POSITION AVAILABLE with Dr. Richard A. Dixon with project funded by the National Science Foundation Plant Genome Program. Must have experience in DNA microarray analysis. Project will involve combined measurements of global transcript and protein and metabolite levels in elicited cells of *Medicago truncatula*. Ph.D. and previous experience in molecular biology and/or biochemistry required. Organizational skills and ability to work collaboratively with various research groups are essential. Salary commensurate with experience (\$36,500 to \$45,600). Application and job description obtainable from website: <http://www.noble.org>. To apply, send curriculum vitae, statement of research interests, and names of three references to: The Samuel Roberts Noble Foundation, Inc., Human Resources Department, Position Number PB-S095-32, P.O. Box 2180, Ardmore, OK 73402. E-mail: nfhr@noble.org; website: <http://www.noble.org/>.

POSTDOCTORAL FELLOWSHIPS Cutaneous Biology

Postdoctoral Fellowships available immediately for training in cellular and molecular dermatology. Projects include investigations of aging and photoaging, melanoma and nonmelanoma skin cancer, wound healing, psoriasis genetics, and translational research. Due to NIH restrictions, two positions are open only to U.S. citizens or permanent residents. Unrestricted positions also available. Please indicate your area of interest and send curriculum vitae and references to: Dr. James T. Elder, 3312 CCGC, University of Michigan, Ann Arbor, MI 48109-0932. FAX: 734-763-4575; e-mail: jelder@umich.edu. The University of Michigan is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS at University of Maryland School of Medicine, Baltimore, to study endothelial cell biology. Will utilize molecular techniques to study protein-protein interactions and signaling events. Experience with tissue culture, recombinant DNA technology, gene transfer, glycobiology, and protein tyrosine phosphatases desirable. Call Dr. S. E. Goldblum; Telephone: 410-605-7192. FAX résumé and references to: FAX: 410-605-7914; e-mail: simeon.goldblum@med.va.gov. Equal Opportunity Employer.

**Norris Cotton Cancer Center
Dartmouth Medical School
Cancer Research Scientists**

The Cancer Center at Dartmouth, one of 40 NCI-designated comprehensive cancer centers, invites applications for tenure track faculty positions at all levels. Construction of a new multidisciplinary cancer research center with laboratories and clinical facilities is underway, and is slated for completion in the summer of 2003. We seek interactive scientists with research interests in any area of the basic and translational sciences relevant to the study of cancer. In addition to an appointment in the NCCC, recruited faculty will receive primary appointments in an appropriate department of Dartmouth Medical School, and will have teaching, clinical, and administrative opportunities and responsibilities that reflect their interests and institutional needs.

Interested applicants should submit a letter of application with a statement of career goals and a curriculum vitae to: **Dr. Mark Israel, Director, Norris Cotton Cancer Center, One Medical Center Drive, Lebanon, NH, 03756.** Letters of recommendation from three individuals should be sent to the same address. Review of applications from senior candidates will begin June 1, 2002. Review of applications for Assistant Professor positions will commence on November 1, 2002.

Dartmouth Medical School is an EO/AA employer and encourages women and minority candidates to apply.

MUSC
MEDICAL UNIVERSITY
OF SOUTH CAROLINA

**Tenure Track Faculty Positions
Department of Cell and Molecular Pharmacology
Medical University of South Carolina
Charleston, South Carolina**

The Department of Cell and Molecular Pharmacology at the Medical University of South Carolina seeks applicants for new tenure track faculty positions. Applicants at the Assistant Professor level are preferred, but appointments at the Associate Professor level will be considered for applicants with independent, funded research programs. Candidates are sought, in particular, to complement existing research programs of the department in cell signaling, cancer biology, cardiovascular pharmacology, and toxicology through the application of pharmacogenomics, bioinformatics, or molecular modeling; but applications will be considered in all fields. New faculty will have access to competitive salary and startup funds and benefit from protected time for the establishment of a nationally competitive research program.

The department provides teaching to multiple colleges within the university, and all faculty are expected to participate in both professional and graduate education as well as maintain an active research program. The Medical University of South Carolina is a rapidly growing research environment. Extramural research support has consistently increased over the past 10 years, topping \$123 million last year. Major research centers include the Hollings Cancer Center, Gazes Cardiovascular Research Institute, Neuroscience Institute, Children's Research Institute, Center for Aging, and the Center for Advanced Imaging Research. New program development is underway in Structural Biology, Bioinformatics, and Bioengineering. State-of-the-art research facilities include x-ray crystallography, mass spectrometry, proteomics, microarrays, functional imaging, and confocal microscopy. The Charleston area provides an outstanding quality of life in a historic coastal community offering excellent opportunities in the arts, sports, recreation, and cuisine.

Please send a curriculum vitae, statement of research interests, and three letters of recommendation addressing both research and teaching potential to: **Pharmacology Search Committee, c/o Jerry G. Webb, Ph.D., Department of Pharmacology, Medical University of South Carolina, 173 Ashley Avenue, Charleston, SC 29425.**

<http://www2.musc.edu/pharm/pharm.html>

The Medical University of South Carolina is an Affirmative Action/Equal Opportunity Employer.

**Dinosaur Paleontologist
(Research Geologist)
Smithsonian Institution
National Museum of
Natural History**

The Department of Paleobiology seeks a permanent, full-time Curator whose research specialty is in the evolution, systematics, paleoecology and/or functional morphology of Mesozoic Dinosauria and/or related Reptilia. The position will be filled at the GS12/13 level (salary range of \$55,694 to \$86,095 commensurate with experience.) In addition to a record of peer-reviewed research publications on dinosaurs and/or related Reptilia, applicants are expected to have experience and interest in science education as well as conducting vertebrate paleontological fieldwork.

Each applicant must send a curriculum vitae, including a complete list of publications (no reprints), and a statement of research and education interests and goals to: **Smithsonian Institution, Office of Human Resources, P.O. Box 50638, Washington, DC 20091.** Applications must be received by June 28, 2002 and must reference **MPA Number 02AD-1186.** Please contact **Audrey Davis at 202-275-1005** with questions. Applicants must arrange for at least 3 letters of reference to be sent.

The Smithsonian Institution is an Equal Opportunity Employer. Preference will be given to applicants with US citizenship.



**BRIGHAM & WOMEN'S HOSPITAL
HARVARD MEDICAL SCHOOL**

The Brigham and Women's Hospital's Vascular Medicine Research Unit is conducting a search for a talented investigator (either M.D., Ph.D., or both) to fill a tenure-track position at the level of Assistant Professor of Medicine at Harvard Medical School. The successful candidate will have demonstrated achievement in the area of vascular biology that will complement the expertise already available in the unit. Particular areas of interest include angiogenesis and vascular physiology/pathology. Special consideration will be given to candidates experienced with in vivo models of vascular disease and/or experienced in animal physiology/pathology. Evidence of ability to secure independent funding is required, along with potential to conduct an independent research program in a highly integrative and collaborative environment. Details about the Vascular Medicine Research Unit can be found at <http://vmru.bwh.harvard.edu>. Applicants should submit a curriculum vitae, a description of research interests, and three letters of reference to: **James K. Liao, M.D., Director, Vascular Medicine Research, Brigham and Women's Hospital, 65 Landsdowne Street, Room 275, Cambridge, MA 02139.**

Brigham and Women's Hospital is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

The USDA, Agricultural Research Service is accepting applications for a senior scientist to head its **Proteomics Research Laboratory** in Ithaca, NY. The successful candidate should have a strong background in protein biochemistry and have experience in protein separation and analysis techniques, such as the generation and analysis of 2D-gels from complex biological samples, multidimensional liquid chromatography, and mass spectrometry for characterization of proteins. The candidate is expected to join ongoing collaborative projects within the ARS in plant and microbial functional genomics, adapt and extend high-throughput proteomics protocols, and direct a laboratory that includes an ABI 4700 tandem time-of-flight mass spectrometer. Preference will be given to applicants with a proven interest in interdisciplinary research projects, publications in an area relevant to proteomics, experience in supervision of research projects with staff and research students and effective project management skills. Salary is commensurate with experience (\$64,542 to \$99,150). Applicants must be U.S. citizens.

For more detailed information on this vacancy, visit <http://www.afm.ars.usda.gov/divisions/hrd/index.html> on the Internet. For information on the research program contact **Dr. Leon Kochian (lvk1@cornell.edu)**. Applications must be marked **ARS-X2E-2267** and postmarked by June 10, 2002.

The USDA is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

POSITIONS OPEN



The University of Kansas Medical Center has an immediate opening for a **POSTDOCTORAL POSITION**. This is an excellent opportunity to join an established research program on evaluation of mechanisms of CNS disease in macaques infected with SIV and SHIV. Studies in cell culture systems involve evaluation of effects of cytokines and chemokines that regulate virus gene expression. Other studies will be directed to identification of molecules that will interfere with pathological expression of these host response genes in efforts to modulate virus gene expression. Studies in cell culture are closely correlated with neuropathogenic effects of the infection in the animals. Requires a Ph.D. in microbiology, molecular biology, biochemistry, immunology, or a related field. Training in virology and molecular biology (signaling pathways and transcription factors) would strengthen qualifications for the position. Submit curriculum vitae and names of three references to: **Dr. Opendra Narayan, Professor and Chairman, Microbiology Department, 5000 WHE, University of Kansas Medical Center, 3901 Rainbow Boulevard, Kansas City, KS 66160-7420. E-mail: bnarayan@kumc.edu; FAX: 913-588-5599; website: <http://www2.kumc.edu/hr>.**

Equal Opportunity Employer/Affirmative Action.

POSTDOCTORAL RESEARCH ASSOCIATE Vertebrate Muscle Development

Applications are invited for a two-year Postdoctoral position in the developmental biology laboratory of **Alan Rawls** at Arizona State University. The position is funded through the Muscular Dystrophy Association-sponsored research projects on characterizing the embryonic stem cell populations of skeletal muscle. Evidence of a strong background in experimental methods in molecular and developmental biology is desired; expertise with muscle development and transgenic mice is advantageous. A Ph.D. in biology or related area is required prior to appointment. Candidates must not currently hold a permanent faculty position. Start date: approximately September 1, 2002.

Applicants must submit the following to: **Dr. Alan Rawls, Department of Biology, P.O. Box 871501, Arizona State University, Tempe, AZ 85287-1501**: (1) cover letter detailing experience; (2) curriculum vitae; (3) three letters of recommendation; (4) copies of reprints; and (5) description of previous research. Contact prior to application is encouraged (e-mail: jrawls@imap4.asu.edu; Telephone: 480-727-6676). Application deadline is June 15, 2002, with applications considered weekly thereafter until the position is filled. *Arizona State University is an Equal Opportunity/Affirmative Action Employer.*

A **POSTDOCTORAL RESEARCH ASSOCIATE** position is available immediately for an individual interested in the pathobiology of vascular calcification arising in response to diabetes and aging. Research efforts emphasize the molecular genetics of Msx homeoproteins and nuclear receptor coregulators in vascular injury responses. This bench-to-bedside research activity applies both *in vivo* and *in vitro* molecular biology and imaging techniques. Experience in murine genetics is desirable. Interested M.D., Ph.D., or M.D.-Ph.D. candidates should send their curriculum vitae to:

Dwight A. Towler, M.D., Ph.D.
Director, Division of Bone and Mineral Diseases
Departments of Medicine and Molecular
Biology/Pharmaceuticals
Washington University School of Medicine
Box 8301
660 South Euclid
St. Louis, MO 63110
FAX: 314-454-5047
E-mail: dtowler@im.wustl.edu

POSITIONS OPEN

RESEARCH CHEMIST POSITION University of California, Berkeley

The College of Chemistry seeks a Research Chemist in the NMR facility. The facility currently houses five NMR spectrometers (one 500, two 400, and two 300 MHz instruments); EPR spectrometer; and several work stations. Acquisition of a new 500 MHz instrument and console replacement for the 400 MHz instruments are underway.

Primary responsibility is to provide comprehensive NMR spectroscopy support and user training to approximately 300 users with varying needs and diverse research efforts. Additional duties include assisting with upgrades, writing proposals for new instrumentation, assisting technical staff with spectrometer maintenance, and performing administrative duties. Research opportunities will be available and are actively encouraged.

Required qualifications: strong background in liquids (and, ideally, solids) NMR using Bruker and/or Varian instruments; solid understanding of NMR hardware and software technology, design, and application of complex pulse experiments; and experience in structural and conformational analysis. Basic UNIX, C, Perl, Tcl/Tk, and CGI background a plus. Excellent written and verbal communication skills essential.

Please send cover letter, résumé, and contact information for three references to: **NMR Search Committee, c/o Marianela R. Macedo, College of Chemistry, University of California, Berkeley, CA 94720-1460**. Salary and appointment commensurate with experience. Closing date for applications is July 15, 2002. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH POSITIONS, POSTDOCTORAL RESEARCH FELLOW(S)/TECHNICIAN(S): chronobiology laboratory, W.J.B. Dorn Veterans Administration Medical Center research and development in Columbia, South Carolina. To study the mechanisms by which circadian and mammalian reproductive cycles affect cancer biology. Candidates should have experience in molecular, cellular, and biochemical techniques as well as *in vivo* tumor biology. Eventual independent funding and progression to junior faculty level expected. Send curriculum vitae and three letters of recommendation to: **Dr. Bill Hrushesky, W.J.B. Dorn VAMC (151), 6439 Garners Ferry Road, Columbia, SC 29209**.

A **POSTDOCTORAL POSITION** is immediately available at University of Virginia Medical School. We are seeking someone with training in biology but interested in applying physical approaches, such as probe microscopy, optical methods, and single molecule detection, to solve biological problems. Specific projects range from single molecular motors to chromatin structures to pore-forming bacterial toxins. Interested candidates please forward your curriculum vitae, research interests, and references to: **Dr. Zhifeng Shao; e-mail: zs9q@virginia.edu**.

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

POSTDOCTORAL POSITION: University of North Carolina at Chapel Hill seeks Ph.D. to work with a multidisciplinary group in cardiothoracic surgery and pulmonary medicine. This translational project will employ gene arrays to study human and murine ischemia-reperfusion lung injury. Experience with RNA extraction and purification essential; experience with cDNA arrays preferred. Inquiries: **T. Egan, M.D., Director, UNC Lung Transplant Program; e-mail: ltxtme@med.unc.edu; Telephone: 919-966-3381; FAX: 919-966-3475**.

CANCER IMMUNOLOGY/GENE THERAPY Harvard Medical School

POSTDOCTORAL POSITIONS available for individuals with expertise in T/B cell biology, animal tumor models, antibodies, phage display single cell PCR, retroviral vectors. Send résumé, summary of research interests, names of three references by FAX to: **Dr. R. P. Junghans; FAX: 617-432-7007**.

POSITIONS OPEN



POSTDOCTORAL POSITION Cadherins and Catenins in Development and Cancer

Position available for a recent Ph.D. recipient to study the role of cell adhesion in tissue morphogenesis. Potential areas of study include the molecular mechanisms underlying the regulation of cadherins and protocadherins, the control of beta-catenin signaling by cadherins and the APC tumor suppressor protein, and the roles of these processes in embryonic development and tissue morphogenesis.

The candidate should have a strong background in either cell, molecular, developmental biology, or biochemistry.

Letters of application briefly describing your research interests, curriculum vitae, and two or three letters of reference should be sent to: **Barry M. Gumbiner, Ph.D., Department of Cell Biology, University of Virginia Health System, P.O. Box 800732, Charlottesville, VA 22908-0732. Equal Opportunity Employer/Affirmative Action.**

A **RESEARCH FELLOW POSITION** is available immediately to examine the role of RGS (regulator of G protein signaling) proteins in heterotrimeric G protein-mediated signal transduction processes (*Nature* 379:742; 383:172, 1996). Studies include characterization of RGSs in inflammatory and immune processes using transgenic and knockout mice. An M.D. or Ph.D. degree and at least five years of postdoctoral experience in cellular and molecular biology and some animal handling experience is required. Familiarity with G protein biochemistry and knockout technology is desirable. Salary based on relevant experience and education. Send cover letter, curriculum vitae, summary of past work, and names and addresses of three references to:

Dr. Kirk Druey
Laboratory of Allergic Diseases
NIAID/NIH/Twinbrook II, Room 203
12441 Parklawn Drive
Rockville, MD 20852 U.S.A.
E-mail: kdruey@atlas.niaid.nih.gov

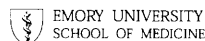
For information, see website: <http://www.niaid.nih.gov/dir/labs/LAD/molecular.htm>. *NIH is an Equal Opportunity Employer.*

SENIOR POSTDOCTORAL FELLOW OR JUNIOR FACULTY POSITION Immediate Opening at Harvard

Training and knowledge in immunology and molecular biology needed. Ph.D. or M.D. experience in current laboratory techniques required. Focus of the laboratory is molecular pathogenesis of autoimmune mucocutaneous diseases. Managerial, organization skills, and experience in supervising graduate students preferred. Good communication skills are essential. Experience in grants writing a plus. Salary based on experience, publications, and rank at appointment. Send résumé to:

Razzaque Ahmed, M.D.
Center for Blistering Diseases
Harvard Medical School and
New England Baptist Hospital
70 Parker Hill Avenue, Suite 208
Boston, MA 02120

POSTDOCTORAL POSITIONS in prion research are available to study the mechanism of conformational conversions, amyloid fibril formation, and/or membrane interactions of the recombinant prion protein. Candidates should have experience in protein chemistry, biophysical methods, and/or protein-membrane interactions. Send curriculum vitae to: **W. K. Surewicz, Ph.D., Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, OH 44106. E-mail: wks3@pop.cwru.edu**.



**CHAIR
THE WALLACE H. COULTER DEPARTMENT
OF BIOMEDICAL ENGINEERING
GEORGIA INSTITUTE OF TECHNOLOGY
COLLEGE OF ENGINEERING
AND EMORY UNIVERSITY SCHOOL OF MEDICINE**

The College of Engineering at the Georgia Institute of Technology (Georgia Tech) and the School of Medicine at Emory University are seeking nominations and applications from qualified individuals for the position of Chair of The Wallace H. Coulter Department of Biomedical Engineering (BME). The Department is a joint department of both institutions, and the Chair reports directly to the Dean of Engineering at Georgia Tech and the Dean of the School of Medicine at Emory. The Department has space and facilities on both campuses, and offers a range of BME degrees: a Bachelor's degree in BME; Master's and PhD. Degrees in Bioengineering; and a joint Ph.D. degree in Biomedical Engineering that is awarded by Emory and Georgia Tech. The Department is presently at 20 equivalent full time faculty members and is projected to grow to 27 by 2006. Projected student enrollment is 400 undergraduate students and 150 graduate students.

The U. A. Whitaker Building is under construction on the Georgia Tech campus and is projected for completion in July 2003. Until that time, BME programs at Georgia Tech are located in the Bioengineering and Bioscience Building, a facility that opened in 1999. At Emory, the Department is located in the Woodruff Memorial Research Building, and these facilities are undergoing renovation for additional laboratories and faculty offices.

Research themes for the Coulter Department include: cardiovascular biomechanics and biology; cell and tissue engineering; neuroscience/engineering; biomedical imaging; biomedical modeling and computing; and cancer-related technologies. Additional information can be found at www.bme.gatech.edu or www.bme.emory.edu.

Candidates for the position of Chair must have an earned doctoral degree and national/international recognition in their specific discipline(s) with a record of excellence in technical, academic and professional achievements. The Chair is expected to maintain a vigorous research program and to provide academic and administrative leadership. Experience in working in an interdisciplinary engineering/medical environment is critical. Salary and benefits are highly competitive.

Applications and nominations should include a current curriculum vitae and names and addresses of three references. Submit materials addressed to: Roger P. Webb, Ph.D., Co-Chairman, and R. Wayne Alexander, M.D., Co-Chairman, Biomedical Engineering Search Committee, c/o The Wallace H. Coulter Department of Biomedical Engineering, 315 Ferst Drive, Suite 1122, Atlanta, GA 30332-0535, attn. Ms. Joanne Wheatley. Applications via email to: joanne.wheatley@bme.gatech.edu are encouraged. The BME Search Committee will review applications until the position is filled.

Georgia Institute of Technology and Emory University are Equal Employment Opportunity/Affirmative Action employers. Both universities encourage the application and nomination of qualified minority and female candidates.

Professor **in applied wetland ecology**

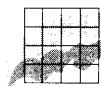
The Danish National Environmental Research Institute offers a position as Professor in applied wetland ecology

The research topics should include:

- Foraging and habitat ecology and population dynamics of vertebrates.
- Migration strategies.
- Effects and impacts of human activities on behaviour, habitat exploitation, survival and reproduction.
- Development of strategies for national and international management of habitats and populations according to the principals of wise use, emphasising the role of management of hunting, establishment of nature reserve networks, nature restoration programmes and balancing recreational and industrial interests.

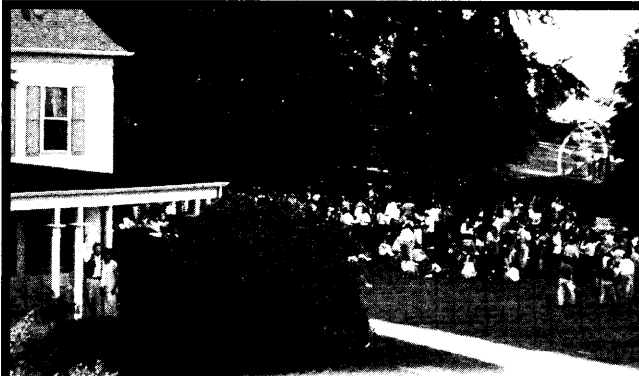
See a detailed description of this professorship on our web-site

job.dmu.dk



National Environmental Research Institute
Ministry of the Environment

MEETINGS



wine & cheese on Airlie lawn overlooking Cold Spring Harbor



Mouse Molecular Genetics



August 28 - September 1, 2002

abstracts due: June 5, 2002

Organized by:

Richard Behringer, University of Texas/M.D. Anderson

Carmen Birchmeier, Max Delbrück Center, Germany

Hiroshi Hamada, Osaka University, Japan

Terry Magnuson, University of North Carolina at Chapel Hill

Rosa Beddington Lecture: Kathryn Anderson

Sessions & Discussion Leaders

- **Signals, Receptors, Transcription:**
Rudi Grosschedl & David Ornitz
- **Neurobiology:** Richard Palmiter & Mary Beth Hatten
- **Organogenesis:** Lothar Hennighausen
- **Models of Human Disease:**
Cory Abate-Shen & Andrew Copp
- **Patterning:** Yumiko Saga & Magdalena Zernicka-Goetz
- **Genetics:** En Li & Ward Wakeland
- **Functional Genomics:** Lisa Stubbs & William Skarnes
- **New Technologies:** John Schimenti & Francis Stewart
- **Special Workshops:** Francis Stewart & Larry Mobraaten

Summer & Fall 2002 CSHL Meetings

Cancer Genetics and Tumor Suppressor Genes August 14 - 18

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Dynamic Organization of Nuclear Function September 18 - 22

Axon Guidance & Neural Plasticity September 25 - 29

Molecular Genetics of Aging October 2 - 6

Germ Cells October 9 - 13

Human Origins & Disease October 30 - November 3

Tissue Engineering November 21 - 24

**Therapeutic Opportunities in Neurodegenerative Diseases
December 5 - 8**

Comparative Plant Genomics December 12 - 15

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The second quarter 2002 focus is on **Functional Analysis**, understanding how genes and their corresponding proteins function and interact *in vitro* and *in vivo*. Deadline for full Grant Proposals is June 1. A preproposal is required. Visit www.invitrogen.com for more information, or contact us at grants@invitrogen.com.

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The National Institute of Allergy and Infectious Diseases Establishes the Pathogen Functional Genomics Resource Center (PFGRC) at The Institute for Genomic Research (TIGR)

A Resource Center to Provide Functional Genomics Reagents and Resources to the Scientific Community

- Bacterial Strain Stocks
- Genomic DNA
- DNA Glass Slide Microarrays
- Primer Pair Sets
- Gateway™ Entry Clones for Full Length ORFs
- Genotyping Services
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- Training and Education

Applications Now Being Accepted for DNA Microarrays for the Following Organisms

- *Streptococcus pneumoniae*
- *Staphylococcus aureus*
- *Salmonella typhimurium*

Application Details can be Found at

- <http://pfgrc.tigr.org>
- <http://www.niaid.nih.gov/dmid/genomes/pfgrc>
- Application Deadline Friday, June 14, 2002



Call for Proposals BMBF Competition "Nanotechnology"

The Federal Ministry of Education and Research (BMBF) intends to give **young scientists** from Germany and abroad who are **experienced in heading a research group** the opportunity to work on new, basic research-oriented approaches in the nanosciences in Germany, independently and in their own team in order to

- generally improve career prospects in industry or science in Germany or
- encourage self-employment in the private sector (setting up businesses or spin-out companies).

The teams (staff: 1 group leader, 1-2 postdocs, 1-2 doctoral students, 1-2 technicians; investments and expendable materials: depending on the technical support required in each case) are to work for a period of 5 years on topics covering the technological use of physical, i.e., mechanical, electronic and optical phenomena characteristic of the nanometer scale (not mainstream developments aimed at merely reducing the size of today's microstructures, incl. microelectronics and those phenomena which can be achieved with individual molecules).

Non-repayable grants will be awarded to the projects selected by a jury.

Deadlines: 15 June 2002 (first call) and 15 October 2002 (second call).

Further information:

Dr G. Schumacher, PTJ-FZJ, D-52425 Juelich
tel +49(0)2461 61-3545; e-mail: G.Schumacher@fz-juelich.de

COILS 2002 Career Opportunities in Life Sciences

THE PREMIER RECRUITMENT EVENT FOR THE CAMBRIDGE LIFE SCIENCES COMMUNITY

DATE: 4th JULY 2002

TIME: 3pm - 7pm

PLACE: Cambridge Corn Exchange

COiLS 2002 is the premier recruitment event specifically targeted at the Cambridge Life Sciences community. The aim of COiLS 2002 is to provide an interactive environment where company representatives and delegates have the chance to meet, exchange ideas and explore employment opportunities in an afternoon of exhibitions and oral presentations

JOB SEEKERS:

Find out more information at www.biologyinbusiness.org
Registration opens on 1st June 2002

EMPLOYERS:

Book your exhibition stand now to avoid disappointment!
Please contact cme23@cam.ac.uk for details

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6th International Biotech & Infotech Summit

June 24-25, 2002
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...images that announce our three annual Life Sciences events. Events designed not to be mass gatherings but highly selective learning and networking opportunities.

Bay Area Venture Series

Venture Connections
June 25, 2002
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Our Summits enable leaders in the Life Sciences to examine and evaluate trends, new opportunities and unseen risks in science, industry and the financial markets.

3rd Health in the Digital Age Summit

September 18-19, 2002
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Registration to our Summits is limited to only 298 individuals and is for senior-level executives, scientists and academics.

Take a look at our website for current and prior-year Summit agendas, attendee and speaker lists, and sponsors.

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COURSES

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October 6 - November 1, 2002

A comprehensive, four week course in Genome Science that will integrate bioinformatics with the latest laboratory techniques for genome sequencing, genome analysis, and high throughput gene expression (DNA microarrays). A distinguished faculty from major universities, bioinformatic centers, The Institute for Genomic Research, and the Marine Biological Laboratory will train 24 students including postdoctoral students, graduate students and established PIs. This cutting-edge course will integrate a series of lectures with laboratory exercises both at the computer and in a high technology, high throughput facility. The major instructional modules include Library Construction, High Throughput Genome Sequencing, Genome Closure techniques, Gene Finding, Annotation, Comparative Genomics, Phylogenomics, DNA microarrays and Functional Genomics. In addition, symposia will be sponsored in topical areas in genome science including Assembly technology, Environmental and Evolutionary Genomics, and Parasite Genomics. The breadth of topics in genome science and the advanced training based upon advanced laboratory technology, distinguish this course from all other offerings.

Course Directors: Claire M. Fraser, *The Institute for Genomic Research*; and Mitchell L. Sogin, *Marine Biological Laboratory*.

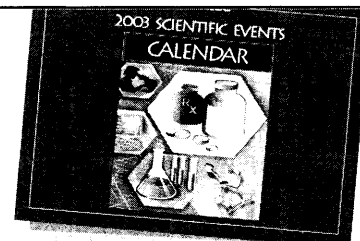
More information about this course and other MBL courses may be found at <http://courses.mbl.edu>, or contact Carol Hamel, Admissions Coordinator, (508) 289-7401, admissions@mbledu.

Marine Biological Laboratory
7 MBL Street, Woods Hole, MA 02543

The MBL is an EEO Affirmative Action Institution.



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The 2003 Scientific Events Calendar will be published in our 13 December 2002 issue. Deadline for submissions is 8 November 2002. This calendar reaches nearly 800,000¹ *Science* readers who could be potential delegates, exhibitors, and sponsors for your event.

Go to www.sciencemeetings.org to submit a free listing or call your *Science* sales representative for more information on multiple listings and advertising in this year-round resource.

¹ Science Harvey Research Readership surveys: 14 January 2000, 4 February 2000, 4 June 1999 (Japan) as applied to *Science* December 2001 BPA Publisher's Statement, publisher's own data.

For full details contact:

In the U.S. Kathleen Clark
phone 202-326-6555
fax 202-289-6742
e-mail kclark@aaas.org

In Europe Richard Walters
phone +44 (0) 1223 326 500
fax +44 (0) 1223 326 532
e-mail rwalters@science-int.co.uk

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AAAS



ICREA announces the opening of **TWENTY RESEARCH POSITIONS** in different fields

All positions may be filled at junior or senior levels. Minimum requirements are a Ph.D. degree, at least three years of international exposure and some postdoctoral experience.

Successful applicants will have a permanent contract with ICREA, and will work along with teams from universities or other research centers in Catalonia in the premises of these cooperating institutions.

Basic salaries will be in line with those in Spanish universities, with complements based on scientific production. Salary increases at any level will be based on periodical evaluations of research progress.

The present announcement was preceded by a search process, which allowed to identify those subfields on which ICREA is definitely interested, and for which the availability of suitable research partners is guaranteed. These subfields and partners are indicated in the list below, and they will be given priority. Yet, outstanding applicants in any field whose qualifications do not directly fall into the mentioned subfields will still be considered, provided that ICREA can identify appropriate teams for fruitful cooperation. Please notice that, because of their operational purpose, our "subfields" are defined quite unconventionally, and that some of them are more broadly defined than others.

Candidates should submit their application electronically through ICREA's web page (www.icrea.es). The application must contain:

- An identification form (available in our web page).
- One file containing a complete CV and a brief statement of purpose, of no more than two pages, expressing the reasons for their interest in ICREA and the general nature of their future research projects.

Names and addresses (including e-mail) of four scholars willing to write reference letters on behalf of the candidates should be provided in the identification form. Two of these scholars should be directly asked by the candidate to send a letter to ICREA, either by e-mail (icrea@icrea.es) or by post (Pg. Lluís Companys, 23, 08010 Barcelona, Spain), no later than July 10, 2002. The others will eventually be contacted by ICREA, if necessary.

Applications should be received electronically at ICREA (www.icrea.es) no later than June 30

List of fields and cooperating institutions

Field: Experimental sciences and mathematics

Subfields with a priority:

Astrophysics and cosmology, Asymmetric catalysis, Modeling geological resources and reservoirs, Natural hazards, Partial differential equations, Supramolecular chemistry and Theoretical chemistry

Cooperating institutions: Universitat de Barcelona (UB), Universitat Autònoma de Barcelona (UAB), Universitat de Girona (UdG), Universitat de Lleida (UdL), Consejo Superior de Investigaciones Científicas (CSIC), Institut Cartogràfic de Catalunya (ICC), Institut Català d'Investigació Química (ICIQ), Institut d'Estudis Espacials de Catalunya (IEEC), Parc Científic de Barcelona (PCB)

Field: Humanities

Subfields with a priority:

Archaeobiology and paleo-economy, Critical editions of literary work, Classical antiquity (urban archaeology and economy), Language acquisition (linguistics, psychology and neuroscience)

Cooperating institutions: Universitat de Barcelona (UB), Universitat Autònoma de Barcelona (UAB), Universitat de Girona (UdG), Universitat de Lleida (UdL), Museu d'Arqueologia de Catalunya (MAC)

Field: Life and medical sciences

Subfields with a priority:

Animal breeding and husbandry, Bioinformatics and functional and structural genomics, Cell biology and virology: signaling, growth, differentiation and cell transformation, Developmental biology, Molecular mechanisms of disease, Neurosciences

Cooperating institutions: Universitat de Barcelona (UB), Universitat Autònoma de Barcelona (UAB), Universitat Politècnica de Catalunya (UPC), Universitat de Lleida (UdL), Centre de Regulació Genòmica (CRG), Consejo Superior de Investigaciones Científicas (CSIC), Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Institut Municipal d'Investigació Mèdica (IMIM), Institut de Recerca Biomèdica de Barcelona (IRBB, Parc Científic), Institut de Recerca de la Sida (IrsiCaixa), Institut de Recerca i Tecnologia Agroalimentàries (IRTA)

Field: Social sciences

Subfields with a priority:

Demographic studies, Economics

Cooperating institutions: Universitat de Barcelona (UB), Universitat Autònoma de Barcelona (UAB), Universitat Pompeu Fabra (UPF), Universitat de Girona (UdG), Centre d'Estudis Demogràfics (CED), Consejo Superior de Investigaciones Científicas (CSIC)

Field: Technology

Subfields with a priority:

Aerospace science and technology, High-temperature superconductors, Image and sound processing and recovery, Nano-science and -technology, Photonics

Cooperating institutions: Universitat de Barcelona (UB), Universitat Autònoma de Barcelona (UAB), Universitat Politècnica de Catalunya (UPC), Universitat Pompeu Fabra (UPF), Universitat Rovira i Virgili (URV), Consejo Superior de Investigaciones Científicas (CSIC)

ICREA (Catalan Institution for Research and Advanced Studies) is a foundation jointly sponsored by the Ministry of Universities, Research and Society of Information of the Government of Catalonia (Generalitat de Catalunya) and by the Catalan Foundation for Research. ICREA wants to support high level research in Catalonia by creating new research positions.

POSITIONS OPEN



POSTDOCTORAL RESEARCH ASSOCIATE Physical Scientist/Research Chemist/ Chemical Engineer

The United States Department of Agriculture (USDA), Agricultural Research Service (ARS), National Center for Agricultural Utilization Research (NCAUR) in Peoria, Illinois, is seeking a Physical Scientist with a recent Ph.D. in chemistry, biochemistry, chemical engineering, or a related field for a temporary-term appointment at the GS-11 level (starting salary: \$43,326 per annum). The position will entail carrying out research on improving the emulsifying capacity of polysaccharides. This will involve research on protein-polysaccharide conjugates including their synthesis and characterization. Physical processing methods are likely to be involved. The position will be in the Fermentation Biotechnology (FBT) Research Unit, which includes Chemists, Biochemists, and Microbiologists working on a variety of methods for converting agricultural commodities into value-added products. Knowledge of protein chemistry, physical chemistry of emulsions, and macromolecular chemistry will be considered highly desirable. Experience with protein-carbohydrate conjugates, proteoglycans, polysaccharide derivatives, or related materials would also be considered an advantage. Applications should refer to Announcement Number RA-02-016H. For information on special requirements, salary, benefits, or application forms, contact: **Mimi Valencia, Human Resources Specialist, USDA/ARS Human Resources Division, 5601 Sunnyside Avenue, Beltsville, MD 20705-5106. Telephone: 301-504-1395; FAX: 301-504-1578.** For specific information on the duties and responsibilities of this position or to submit an application, contact: **Dr. Gregory Côté, USDA/ARS/NCAUR/FBT, 1815 North University Street, Peoria, IL 61604. Telephone: 309-681-6319; FAX: 309-681-6427; e-mail: cotegl@ncaur.usda.gov.** *USDA/ARS is an Equal Opportunity Provider and Employer.*

POSTDOCTORAL POSITION available to study the role of nicotinic acetylcholine receptors (nAChR) in normal lung development and how lung development is altered by prenatal exposure to nicotine. Research will combine studies on nicotine receptor knockout mice with basic molecular studies of nAChR genes, ligands, and accessory proteins as well as studies on human tissues. The candidate should have a Ph.D. or M.D. degree and a background in cholinergic receptors or neurotransmission, lung biology, or lung development. Flexible start date and salary commensurate with experience. Send curriculum vitae and names of three references to: **Eliot R. Spindel, M.D., Ph.D., Division of Neuroscience, Oregon National Primate Research Center/Oregon Health and Science University, 505 N.W. 185th Avenue, Beaverton, OR 97006. E-mail: spindele@ohsu.edu.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION Optical Imaging

A full-time Postdoctoral position is currently available in the Department of Medicine at Indiana University to work on technology development using nonlinear optics for microscopy imaging and application in medical research involving cardiovascular, kidney, and other diseases. Method to be used includes multiphoton excitation and confocal and time-resolved microscopy. Motivated applicants with Ph.D.s in biophysics, biomedical engineering, and related fields are encouraged to apply. Please send curriculum vitae and contact information of three references to: **Debora Lewis; e-mail: drlewis@iupui.edu.** For more information, please visit website: <http://www.nephrology.iupui.edu>.

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Use your scientific creativity and technical proficiency as you work on the Transcriptome Mapping project, which employs very high-density Affymetrix oligonucleotide array technology to map transcribed regions of the human genome (*Science* 296:916, 2002). You will participate in the development of novel oligonucleotide array technologies to detect novel mapping applications such as locating methylated regions, transcription factor binding sites, origins of DNA replication, etc., in the mammalian genomes as well as assist in ongoing RNA transcript mapping projects. Requires a Ph.D. in molecular biology, biochemistry, genetics, or related field. Experience with array-based experiments desirable but not required.

Submit résumés to: **Requisition ID: 532 and 537; website: <http://www.affymetrix.com/corporate/careers/index.jsp>.** *Equal Opportunity Employer.*

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION

Molecular Viral Oncogenesis and New Pathogen Discovery

Position available starting July 2002. Ongoing studies involve viral regulation of cMYC, pRB, apoptotic and interferon signaling pathways by Kaposi's sarcoma-associated herpesvirus (*Science* 266:1865, 1994; *PNAS* 93:1487, 1996) and use of molecular techniques to find unidentified pathogens. Experience in virology, transcriptional regulation, or genomics preferred. The laboratory is located in the University of Pittsburgh Hillman Cancer Center, a newly built, free-standing 350,000 square foot cancer research and treatment facility. Send curriculum vitae and three references by FAX or mail to: **Patrick S. Moore, M.D., M.P.H. and Yuan Chang, M.D., Molecular Virology Program, c/o Ms. Lorraine Ombres, University of Pittsburgh Cancer Institute, 305 Iroquois, 200 Lothrop Street, Pittsburgh, PA 15213. Website: <http://www.upci.upmc.edu/internet/molvirology/kshvlab.html>.**

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A fully-funded **POSTDOCTORAL POSITION** is available to study novel immunotherapeutic strategies involving gene transfer for model autoimmune diseases. Projects involve specific therapy of experimental myasthenia gravis in animals and cell culture systems. Strong practical and theoretical background in molecular biology and immunology and experience in cellular immunology techniques required. Use of viral vectors for gene transfer. *Candidate must be in U.S. and available for interview.* Curriculum vitae and three references to: **Daniel B. Drachman, M.D., Professor of Neurology and Neuroscience, Johns Hopkins School of Medicine, 600 North Wolfe Street, Baltimore, MD 21287-7519. E-mail: dandrac@jhmi.edu; FAX: 410-955-1961.** *Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL and RESEARCH ASSISTANT positions are available to study the immune escape and drug resistance evolution of HIV and HCV. Experience in virology, nucleic acid amplification, and sequence analysis preferred. Send curriculum vitae to: **Dr. Eric Delwart, Blood Centers of the Pacific, Department of Medicine, University of California San Francisco, 270 Masonic Avenue, San Francisco, CA 94118. E-mail: delwarte@medicine.ucsf.edu.**

POSITIONS OPEN



POSTDOCTORAL RESEARCHER Laboratory Medicine and Pathology Rochester, Minnesota, U.S.A.

Postdoctoral Researcher with considerable molecular biology experience to characterize candidate tumor suppressor genes derived from highly unstable common fragile site regions in the genome. Ph.D. required and research experience with molecular biology techniques or cytogenetics. Highly motivated individual capable of working independently. Salary will be determined by the successful candidate's experience. There is an attractive benefit package. Mayo Clinic is a not-for-profit organization. Mayo integrates research with clinical practice and education in a multicampus environment. For further information, please visit website: <http://www.mayo.edu/research/>.

Applications including curriculum vitae and bibliography, summary of past accomplishments, and the names of three references should be sent to:

**Dr. David I. Smith
Professor, Division of Experimental Pathology
Hilton 800
200 First Street, S.W.
Rochester, MN 55905
Telephone: 507-266-0309
FAX: 507-266-5193
E-mail: smith.david@mayo.edu**

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POSTDOCTORAL FELLOW Microbial Cellular Networks

Positions are available to join an interdisciplinary research group to elucidate the architecture and dynamics of cellular networks in *Escherichia coli*. Large-scale technologies such as DNA microarrays are used to make genomewide observations of cellular states. Theoretical approaches are then employed to analyze such data in order to model the genetic circuitry and to develop functional predictions for prospective experimental analyses.

Candidates with a Ph.D. or equivalent with demonstrated track record in bacterial molecular genetics are sought. Interested applicants should send their curriculum vitae and the names of three references to:

**Dr. Zoltan Oltvai
Department of Pathology
Northwestern University
Chicago, IL 60611
E-mail: zno008@nwu.edu**

POSTDOCTORAL FELLOWSHIPS Neuroscience

University of Wisconsin—Madison

Immediate openings for several Postdoctoral Fellows to study amyloid precursor protein posttranscriptional gene regulation in Alzheimer's disease (see *JBC* 276:1119–1126, 2001; *J. Neurosci. Res.* 66:311, 2001). The project is NIH funded in an excellent training environment. Madison is a wonderful place to live. Please send curriculum vitae, the names of three references, and a brief research statement to: **Dr. J. S. Malter; e-mail: jsmalter@facstaff.wisc.edu; FAX: 608-265-6215.**

A **POSTDOCTORAL POSITION** in neuroscience is available to join NIH- and NSF-funded projects to study glutamate-dependent acetylcholine plasticity in hypothalamic neurons. See website: <http://www.tulane.edu/~belousov>. Successful candidate must have a Ph.D. or MD, and strong background in whole cell recording/electrophysiology. Please contact: **Andrei B. Belousov, Ph.D., Department of Cell and Molecular Biology, Tulane University, New Orleans, LA 70118. E-mail: belousov@tulane.edu.**

POSITIONS OPEN

Three **POSTDOCTORAL RESEARCH ASSOCIATE** positions available immediately. (1) Structure and function of voltage-gated calcium channels from schistosomes. Candidates should have interest in molecular neuroscience and parasitology. Experience in molecular biology, biochemistry, or electrophysiology preferred. Contact person: **Robert M. Greenberg**; e-mail: rmg@whitney.ufl.edu. (2) Molecular biology and physiology of larval mosquito midgut. Requires Ph.D. in biochemistry or molecular biology and at least two years of experience with mosquito culture, gene cloning, and pharmacology. Contact person: **Paul J. Linser**; e-mail: pjl@whitney.ufl.edu. (3) Vertebrate neural retina development and cell biology. Candidates should have interest in molecular neuroscience and development with a background in cell or developmental biology and technical expertise in biochemistry, molecular biology, or retina physiology. Contact person: **Paul J. Linser**; e-mail: pjl@whitney.ufl.edu. Please send full curriculum vitae, a summary of research interests and experience, and names and addresses of three references to the appropriate contact person at: **The Whitney Laboratory, University of Florida, 9505 Ocean Shore Boulevard, St. Augustine, FL 32080**. Applications should be received no later than July 1, 2002. *The University of Florida is an Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS

Postdoctoral Research Associate positions are available immediately in the Center for Bio/Molecular Science and Engineering of the Naval Research Laboratory. Applications are currently sought for two Postdoctoral positions in the fields of (1) bioinformatics or quantitative analysis of biological data sets, e.g., functional genomics (contact: **Dr. J. J. Pancrazio**; e-mail: jxp@cbmse.nrl.navy.mil); (2) genomics underlying microbial pathogenesis (contact: **Dr. D. A. Stenger**; e-mail: dstenger@cbmse.nrl.navy.mil). These positions require a Ph.D. in a relevant field with less than five years of previous postdoctoral experience. Starting salaries are \$55,000 per year and opportunities are excellent for transition to permanent status after a successful postdoctoral tenure. Interested applicants should send their curriculum vitae, letter summarizing background with statement of interest, and the names of two references by e-mail (or regular mail) to the respective contacts. The regular mailing address is: **CBMSE, Code 6900, Naval Research Laboratory, Washington, DC 20375**. *Only U.S. citizens or permanent residents can be considered for these positions.*

A **POSTDOCTORAL POSITION** is immediately available in the area of gene therapy. Our laboratory is developing a naked DNA-based approach that allows for long-term expression of transgenic material. Applicants should possess a Doctoral degree in the biomedical sciences with training in molecular and cell biology and preferably have some experience with animals. Please send curriculum vitae and the names of three references to: **Brad Fletcher, M.D./Ph.D., University of Florida, Department of Pharmacology and Therapeutics, P.O. Box 100267, Gainesville, FL 32610**. E-mail: bsf@college.med.ufl.edu.

The University of Florida is an Equal Opportunity Employer/Affirmative Action Employer and minorities and women are especially encouraged to apply.

POSTDOCTORAL POSITION available to study primate maternal-fetal immunology and placental development. Ph.D. in cellular/molecular reproductive biology or immunology and experience in reproductive immunology, NK or macrophage cell biology, and maternal-fetal interactions desired. Submit curriculum vitae and names, addresses, and telephone numbers of three references to: **Dr. Thaddeus G. Golos, Ph.D., Wisconsin Primate Research Center, University of Wisconsin, 1223 Capitol Court, Madison, WI 53715-1299**. E-mail: golos@primate.wisc.edu. *Affirmative Action/Equal Opportunity Employer.*

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POSTDOCTORAL POSITION

A Postdoctoral position is available in the Laboratory of Allergic Diseases/NIAID/NIH to study Fc gamma RI/Fc epsilon RI-dependent signaling mechanisms in human mast cells. These studies will concentrate primarily on the role of tyrosine kinases and PI-3-kinase in the regulation of PKC activation and gene expression. The candidate should have a Ph.D. in immunology, molecular biology, protein biochemistry, or cell biology, preferably with experience in transfection of primary cultures and cell lines. Interested individuals should e-mail or send a cover letter, curriculum vitae, and names and contact details of three references to: **Alasdair M. Gilfillan, Ph.D., LAD/NIAID/NIH, Building 10, Room 11C205, 10 Center Drive, MSC 1881, Bethesda, MD 20892-1881 U.S.A.** Salary based on relevant experience and education. Application deadline is June 30, 2002. E-mail: agilfillan@niaid.nih.gov; website: <http://www.niaid.nih.gov/dir/labs/lad.htm>.

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NCI-Frederick, CCR, BRL, Molecular Genetics of Retroviruses Section. A **POSTDOCTORAL POSITION** is available to conduct research on human T cell leukemia virus Type 1 (HTLV-1). Current projects include studies of virus infectivity, replication, and control of cell and virus gene expression. Applicants must have a Ph.D. or M.D. degree and should have a strong experience in molecular and cell biology, cellular immunology, or virology. Applicants must have received their Ph.D. within the past five years. NCI offers J-1 visa to visiting Fellows. Curriculum vitae and names of three references should accompany response. Reply to: **Dr. David Derse, NCI-Frederick, Building 567, Room 152, Frederick, MD 21702-1201**. Telephone: 301-846-5611; FAX: 301-846-6863; e-mail: derse@ncifcrf.gov.

POSTDOCTORAL PROTEIN FOLDING

Tulane, New Orleans, Louisiana

NIH-funded Postdoctoral position available to study the roles of cofactors in protein folding using equilibrium and kinetic spectroscopic as well as molecular-biology methods. Current research includes blue-copper proteins, flavodoxins, ferredoxins, and oligomeric chaperonins (website: <http://www.tulane.edu/~pernilla>). Applicants should have graduate experience in protein biophysics and/or biochemistry. If interested in working in a dynamic environment, send your résumé, three recommendation letters, and a research statement to: **Dr. Pernilla Wittung-Stafshede, Chemistry Department, Tulane University, New Orleans, LA 70118**.

POSTDOCTORAL FELLOW

Imaging Neural Circuitry in Behaving Zebrafish
Boston, Massachusetts

To join research group investigating the neural control of locomotive behaviors and the origins of individually identified neurons. Fellow will be trained in confocal and high-speed behavioral imaging and related techniques (see *J. Neurophys.* 87:608-614, 2002). Curriculum vitae to: **Don O'Malley, Department of Biology, 414 Mugar Hall, Northeastern University, Boston, MA 02115**. Website: <http://www.omalleylab.neu.edu>. Inquiries to e-mail: d.omalley@neu.edu. *Northeastern University is an Equal Employment/Affirmative Action Opportunity Employer.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS in molecular pathogenesis of Epstein-Barr (**Drs. Kieff, Wang**) or Kaposi's sarcoma herpesvirus (**Drs. Desrosiers, Jung, Kaye**) infections and oncogenesis at Harvard Medical School. Candidates should have a strong background in biochemistry, genetics, cell biology, virology, or immunology. Submit curriculum vitae and three letters of reference by mail to: **Harvard Viral Oncology Program, c/o Elliott Kieff, 181 Longwood Avenue, Boston, MA 02115**. E-mail: elliott_kieff@hms.harvard.edu.

GLOBAL OPPORTUNITIES

POSITIONS OPEN

**Institute of Molecular Biology
Academia Sinica, Taiwan, ROC**

Tenure-track positions are open for outstanding individuals to establish research programs in an expanding and stimulating research institute. Scientists in all areas of molecular biology with a Ph.D. degree and at least two years of postdoctoral experience are encouraged to apply.

The Institute (website: <http://www.sinica.edu.tw/imb>) currently has 28 laboratories, 60 Postdoctoral Fellows, and 120 graduate students. It is well funded, has modern research facilities, and maintains close international connections. Successful candidates will be appointed at the ASSISTANT, ASSOCIATE, or FULL RESEARCH FELLOW level and are expected to develop their own independent research programs as well as program projects with other researchers in the Institute.

Deadline for application is June 30, 2002. First-round candidates will be selected by July 31, 2002. The interview process and final decision are expected to be completed by October 31, 2002.

Interested individuals should send curriculum vitae; a description of past research accomplishments and future research interests; and three letters of reference by June 30, 2002, to: **Director's Office, c/o Fei Chen, Institute of Molecular Biology, Nankang, Taipei, Taiwan 11529, ROC**. Further information can be obtained from: **Ms. Fei Chen**; e-mail: feichen@ccvax.sinica.edu.tw.

COURSE

CARDIOVASCULAR PATHOPHYSIOLOGY

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One-week intensive course sponsored by Massachusetts Institute of Technology, Cambridge, Massachusetts; July 8-12, 2002. **Dr. Richard D. Cohen**, Program Director. Basic principles of cardiovascular physiology, cardiovascular medicine, diagnostic and therapeutic technologies. Contact: **MIT Summer Session**; Telephone: 617-253-2101; website: <http://web.mit.edu/professional/summer>.

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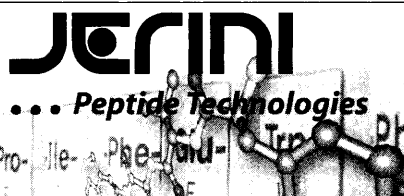
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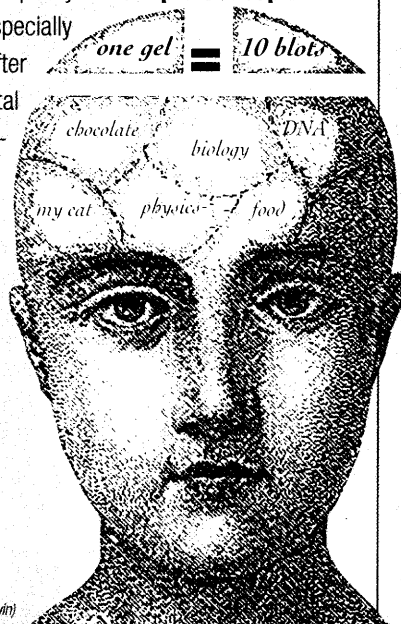
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