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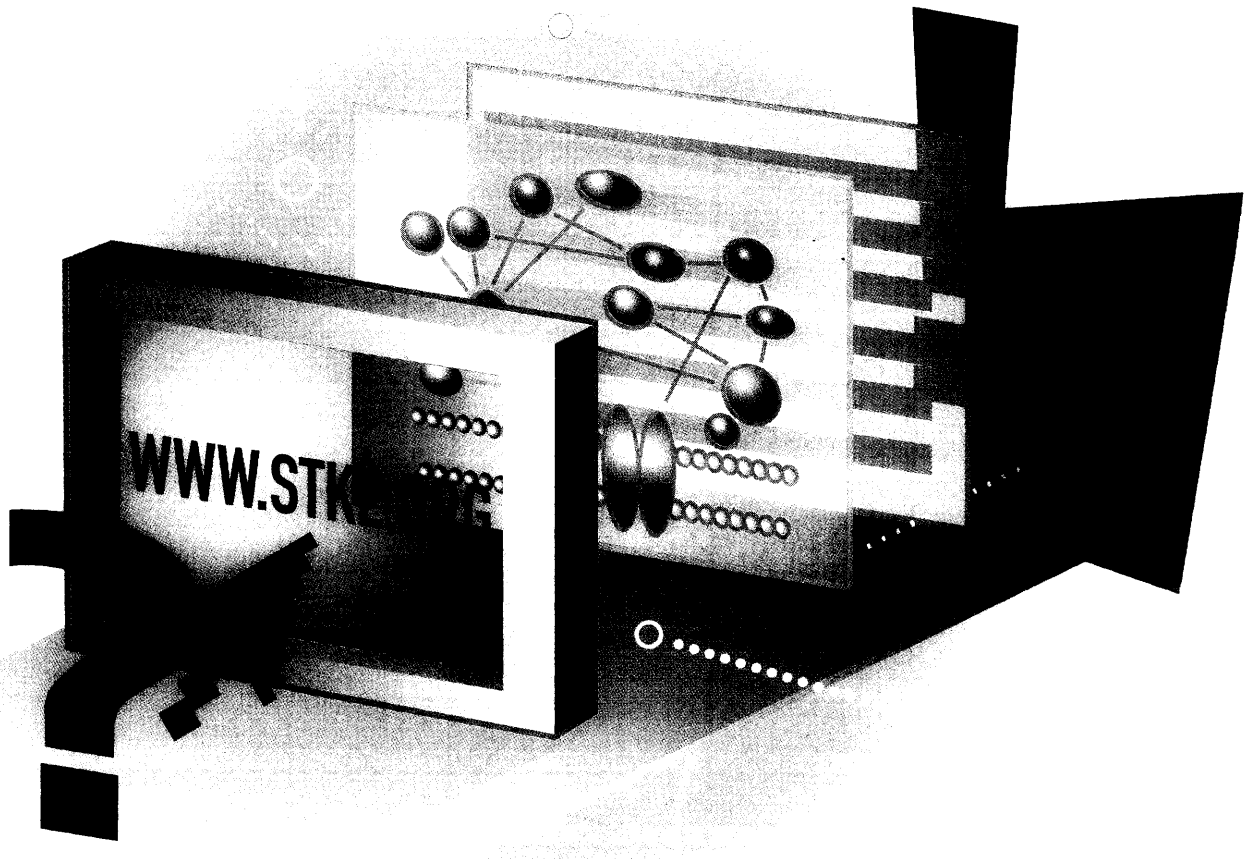

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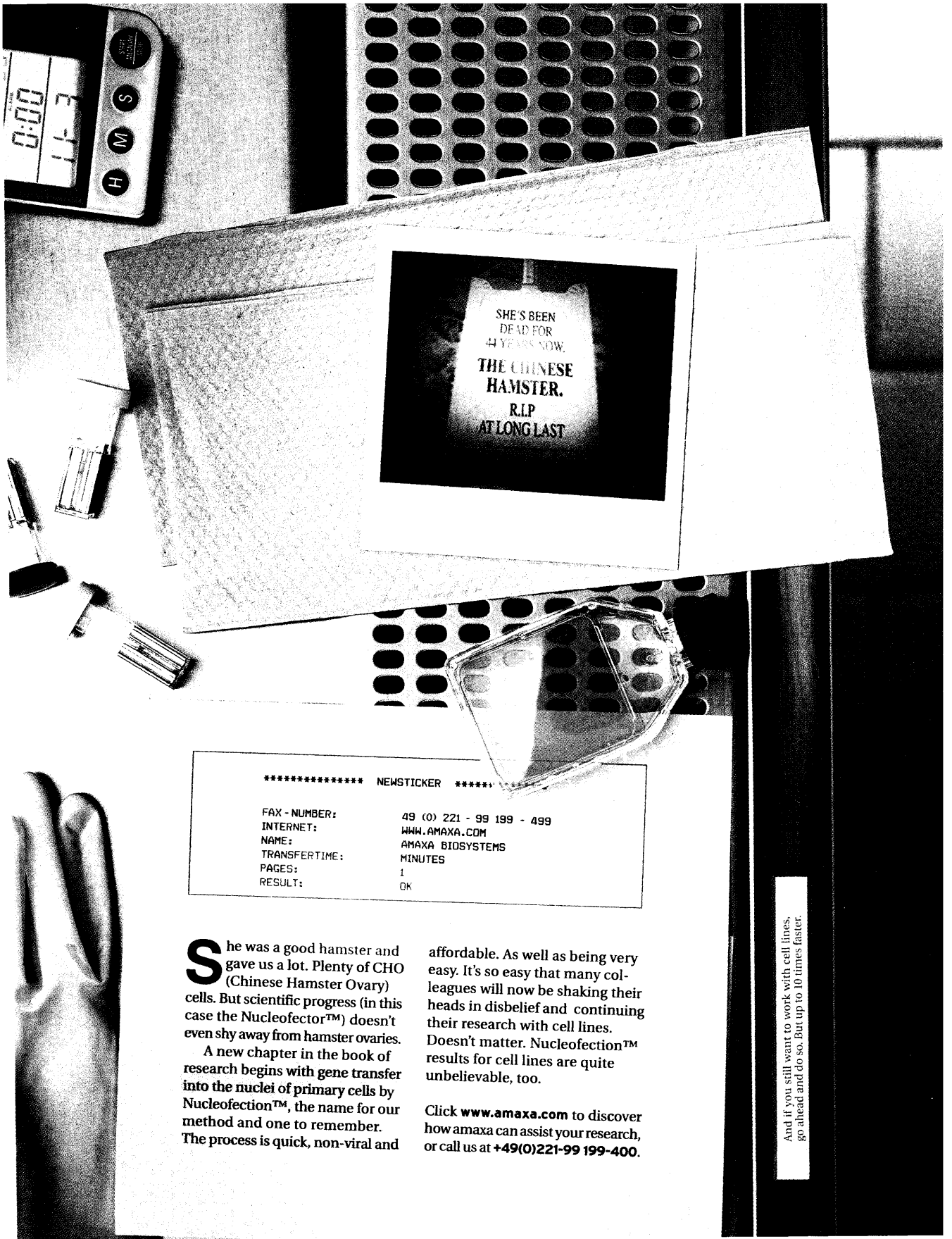

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One of the most common uses of the Web cited by many users is to check atmospheric conditions and obtain weather forecasts. For those interested in extraterrestrial conditions, a considerable amount of information about solar activity is available. StimpSoft's Solscape is one of the first products to tap into these resources.

Solscape is one of those rare applications that in a single product seamlessly combines research data with information of interest to a general audience. The program is divided into six main areas: Sun Images, Graphs, Aurora, Earth, Alerts, and Moon. Under Sun Images, users can view 10 different pictures of the Sun taken from Earth or from satellites. These current images are obtained using different wavelengths of light. Like almost all information in the program, users can specify the frequency through which images are downloaded, but the "real" update frequency will be limited by how often the servers themselves update information.

For scientists with casual interests in solar activity, the Aurora, Earth, Alerts, and Moon areas of the application will be of most interest. Aurora provides global projections of current aurora activity, as well as satellite and ground-based images as they become available.

The Earth module is the part of the program most pertinent to terrestrial weather. It includes global and regional satellite images in visible and infrared light. Ten global views are available, as well as 15 images focused on regions of the United States. The Alerts section provides solar weather conditions, including solar wind speed (537 km/s at the time of this writing), proton density, and counts of current x-ray and optical flares. Warnings about magnetic storms are also presented in this section. The Moon section contains the least information, showing only the phase of the Moon and days until new or full Moon.

Scientific data is presented in the Graphs module. Nineteen different plots are listed, but only a handful of them had information as this was being written. The Graphs section includes time plots of electron and proton densities in the solar wind, as well as x-ray fluxes, radio fluxes, sunspot numbers, and more. One shortcoming of this section was the lack of descriptions of each plot, a trait made more noticeable by the excellent descriptions in the other, more general sections of the program.

There's a lot to like and little to complain about in Solscape, particularly given the program's price (it's free). Developers ask that users consider donating money to provide continued support for the program. **—Kevin Ahern**

Department of Biochemistry and Biophysics, Oregon State University, Corvallis, OR 97331, USA. E-mail: ahernk@onid.orst.edu

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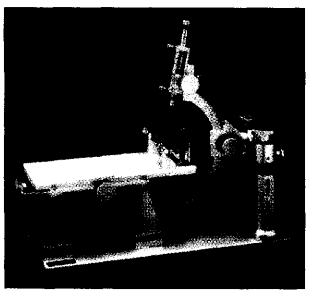

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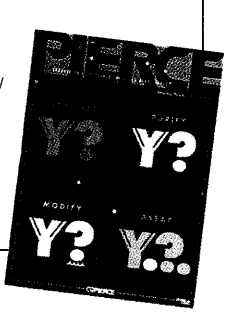

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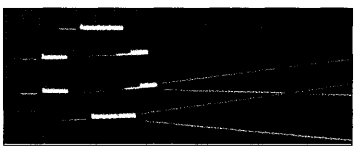

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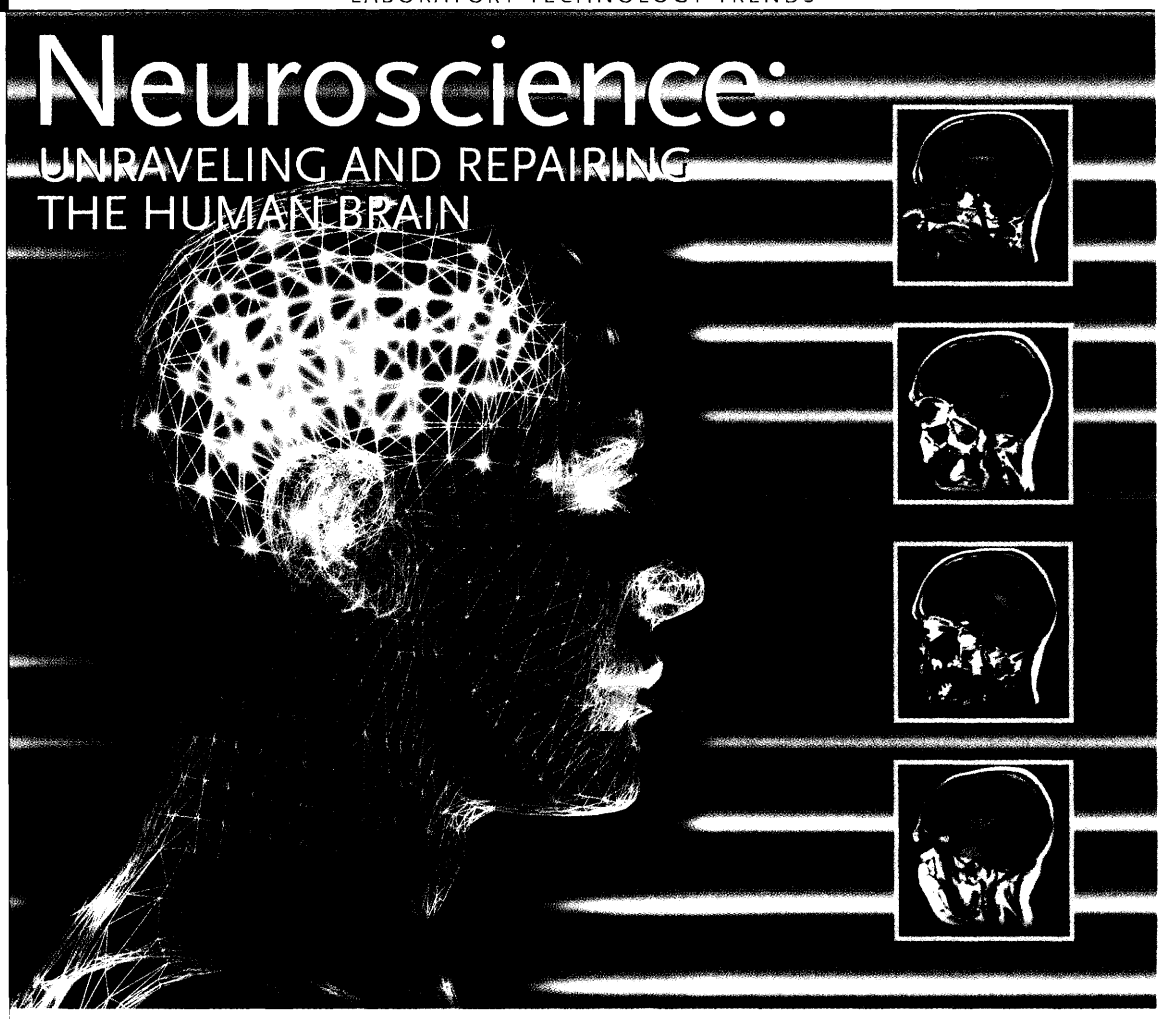
Neuroscience: UNRAVELING AND REPAIRING THE HUMAN BRAIN



Neuroscientists continually unveil unexpected processes inside our brain, such as the rather recent discovery that we generate new neurons from before birth until death. With a growing understanding of our brain's structure and function, neurobiologists aim at repairing extensive brain damage, including that associated with Alzheimer's and Parkinson's diseases.

BY MIKE MAY
AND GARY HEEBNER

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For many decades, biologists believed that the human brain relied on only the neurons created by the time of birth, because it never made any more. In the late 1990s, though, two groups of neuroscientists debunked that myth, which had been held as a central tenet of brain biology. Elizabeth Gould's group at **Princeton University** reported the birth of new neurons—so-called neurogenesis—in the brains of adult primates. Even more amazing, Fred Gage's group at **The Salk Institute** unveiled neurogenesis in adult humans. Those findings remodeled a significant portion of the foundation of neuroscience. In fact, many neuroscientists considered the discovery of neurogenesis in adult humans to be the discovery of the decade, and perhaps beyond. As Anders Haegerstrand, president and chief executive officer of **NeuroNova AB**, said, "The most striking advance in neuroscience is understanding that the brain is rebuilding itself to some extent."

The ongoing creation of new cells in our nervous system stimulates an intriguing question: What if we could turn neurogenesis on and off, or fine-tune it in very specific ways? If that could be done, investigators might develop therapies that prompt the human brain to repair itself, even when attacked by Alzheimer's, Parkinson's, or Huntington's disease. Maybe neurologists could even trigger the nervous system to repair injuries as devastating as a severed spinal cord. Moreover, a better understanding of the endogenous production of neurons might teach brain biologists how to create cells that could be transplanted to treat a variety of injuries and disorders.

Still, many aspects of the brain—human or otherwise—remain unexplained. To continually uncover the brain's mysteries, neuroscientists use every tool available. As Mike Munzar, medical director at **Nymox Pharmaceutical Corporation**, said, "One of the most significant advances in neuroscience is the use of an integrated paradigm: genomics, proteomics, neuroanatomy, neuropharmacology, immunology, psychology, and clinical work."

CONTINUED ➢

Neuroscience: UNRAVELING AND REPAIRING THE HUMAN BRAIN

LOOKING BACK ON BRAIN BIOLOGY

In the 17th century B.C., someone recorded head injuries in two patients by writing on papyrus in ancient Egyptian. Several times, this document included a word now translated as "brain." Perhaps even then—many centuries ago—people of science wondered what the brain did and how. Most questions about the brain, though, remained unanswered until the early 1900s. Then, investigators started to expose the brain's structure by using new techniques.

Camillo Golgi developed a silver stain that exposed entire neurons. Suddenly, he could see a neuron's cell body with its attached projections, called dendrites, and a long structure, called an axon. Then, Santiago Ramón y Cajal used Golgi's staining technique to show that a brain consists of networks of many discrete cells. This so-called neuron doctrine, which means that many individual neurons make up a nervous system, continues as the foundation of modern neuroscience.

From the start, neuroscientists suspected that these networks of neurons operate as a complex control system. Lightning storms of electrical activity in the brain contributed to the idea of ongoing communication. In fact, voltage spikes called action potentials rocket along a neuron's axon to carry messages from one end to the other. At the end of a neuron's axon, an action potential can trigger signals in adjoining cells. The communication from neuron to neuron relies on chemical messengers—called neurotransmitters—that travel from one cell to the next at a synapse. In some cases, an electrical signal literally jumps from one neuron to another through so-called gap junctions.

To better understand the normal and disease processes in our nervous system, neuroscientists often study development. With improved techniques, neuroscientists started seeing the maze of 100 billion neurons, all entwined in 10 times as many supporting cells called glia. This labyrinth of cells made investigators wonder how such a system could get "wired" correctly. In the 1950s, neurobiologists discovered that a substance called nerve growth factor guides peripheral nerves along predetermined pathways. Later, scientists found other growth factors that direct the growth and organization of central neurons as well.

AGING—PLAQUES, TANGLES, AND ALZHEIMER'S DISEASE

In considering development, many biologists think of blastocysts and neural tubes, but this field includes another end—aging. We know that a human body wears out over time, and some of the most devastating effects of aging involve the brain. As the world's population ages, Alzheimer's, Huntington's, and Parkinson's diseases attract increasing attention. According to William Thies, vice president of scientific and medical affairs for the **Alzheimer's Association**: "Alzheimer's is a very big problem. About four million Americans currently have this disease." He added, "We're at the very beginning of an epidemic with Alzheimer's." By 2050, this disease could affect more than 14 million Americans.

In 1906, Alois Alzheimer described the disease that carries his name. He pointed out two types of brain lesions: plaques and tangles. In the cortex, the outermost layer of the brain, plaques develop outside of neurons and tangles appear in neurons. Plaques consist of accumulations of a protein called beta amyloid. The creation of tangles involves another protein, called tau. The tau protein normally stabilizes the system that carries materials from a neuron's cell body to peripheral locations. In Alzheimer's disease, tau gets phosphorylated and stays in the cell body, where it forms tangles. Consequently, both plaques and tangles arise from accumulations of proteins. Presumably, these deposits interfere with messaging in the brain. Moreover, the magnitude of these deposits correlates positively with the degree of dementia experienced by Alzheimer's patients.

Inevitably, these protein accumulations generate serious problems. Thies said that memory loss is the hallmark symptom of Alzheimer's disease. Memory loss, though, can lead to psychological problems, including paranoia. Eventually, a patient grows entirely unresponsive, and the disease proves fatal. Despite knowing so much about the brain lesions and development of symptoms behind Alzheimer's disease, it remains difficult to diagnose at early stages.

To address that problem, Nymox Pharmaceutical developed a test based on AD7c-NTP, which is a neural thread protein. This protein's concentration rises in brain tissue, cerebrospinal fluid, and urine of patients with Alzheimer's disease. Consequently, Nymox's AlzheimAlert examines the level of this neural thread protein in a urine sample.

Nymox also takes other approaches to combating Alzheimer's. For example, investigators at Nymox examine tiny balls of densely packed protein, or spherons, which are scattered throughout our brain cells. Spherons begin developing soon after birth, and eventually get so big that they burst. The bursting spherons, according to Nymox scientists, might lead to the senile plaques found in Alzheimer's disease. Moreover, Nymox is testing several drugs that could prevent the conversion from spherons to plaques.

Whatever approach medicine takes to treating Alzheimer's disease, earlier diagnosis should help. Munzar said, "On average, it takes three years to diagnose Alzheimer's disease. If you want early diagnosis, early treatment, you need a tool for general caregivers." Nevertheless, he emphasizes that AlzheimAlert is not a standalone diagnostic. Instead, it simply aids a clinician in diagnosing Alzheimer's disease.

A collaboration between **BioErgonomics, Inc.,** and **Loma Linda University** might also lead to a diagnostic for Alzheimer's disease. Wolff Kirsch, professor of neurosurgery and biochemistry at Loma Linda, said, "Iron has long been implicated in neurodegenerative diseases, and Alzheimer's patients have buildups of iron

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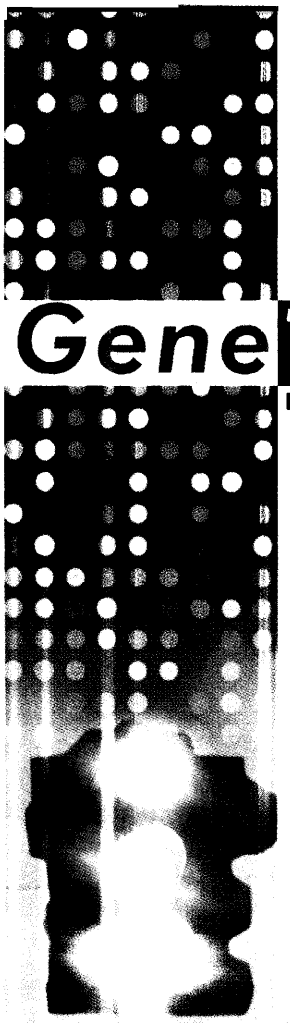

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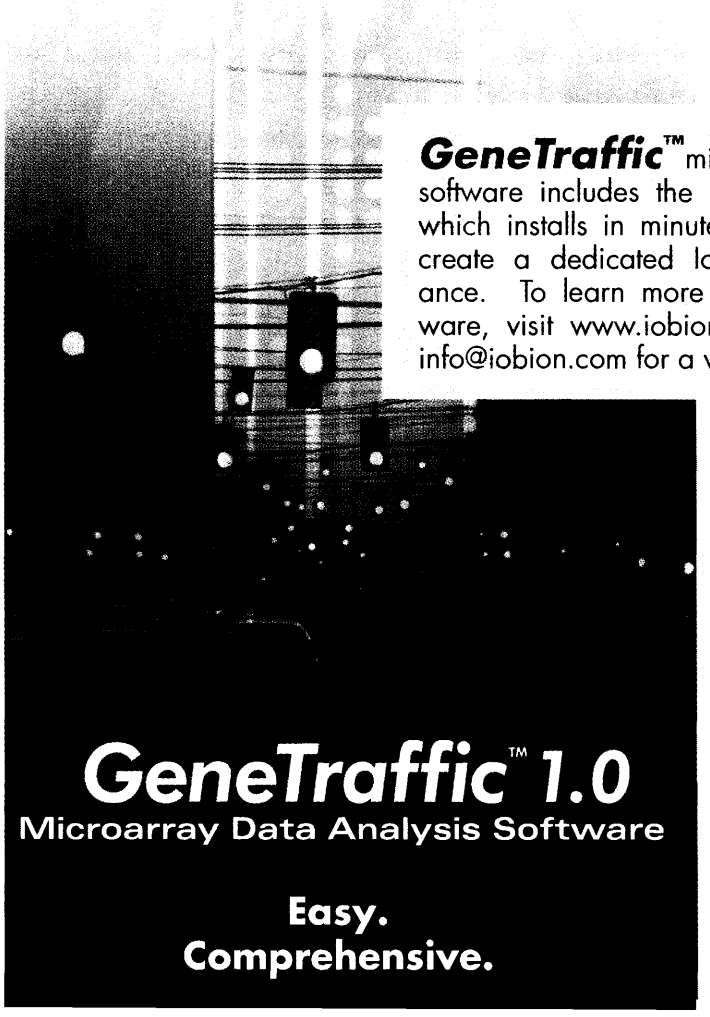

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Neuroscience: UNRAVELING AND REPAIRING THE HUMAN BRAIN

in areas of the brain associated with memory." He added, "There could be something wrong with the iron regulators." In particular, Kirsch and his colleagues suspect that iron regulating protein-2 might be involved. According to Dan Collins, chief scientific officer and executive vice president for BioErgonomics, a study is under way in which iron regulating protein-2 is being measured in patients with minimal cognitive impairments. From this study and others, this group of investigators hopes to develop a blood test that provides early diagnosis of Alzheimer's disease. Collins said, "If you wait till a person has dementia, it could be too late to treat the disease."

IMPROVING THE IMAGE

In spite of a brain's amazingly complex structure, many of the early findings in neuroscience came from simple visual observation through the lens of the microscope. Light microscopy revealed the gross structure of nerve cells and other structures that are too small to see with the naked eye. Although the earliest light microscopes seemed cumbersome, today's instruments provide ease of operation and capture highly detailed images of cellular and subcellular components.

From the start, though, a microscopist faces a challenge—the colorless and transparent nature of cells. Consequently, cells appear virtually invisible under the lens of a standard light microscope. The discovery of biological stains and dyes, however, revealed different cell types and structures within them. A variety of companies—including **Fisher Scientific**, **Sigma-Aldrich**, and **Wako Chemicals**—offer a large number of stains and dyes that expose different structures based on their chemical characteristics.

Nevertheless, some challenges exceed the capabilities of ordinary light microscopy. When that happens, investigators turn to confocal, phase-contrast, dark-field, or fluorescence microscopy. For example, Marco Eijsackers, business development manager for the biomedical market segment of compound microscopy at **Leica Microsystems**, said, "Fluorescent microscopy enabled advances in four crucial aspects of neuroscience: morphology, physiology, developmental neurobiology, and molecular biology and diagnostics related to diseases." Several companies, including **Carl Zeiss**, Leica Microsystems, **Nikon Instruments, Inc.**, and **Olympus**, produce a wide range of microscopes. These suppliers also develop digital camera systems and analytical software for data analysis.

Even advanced forms of microscopy benefit from various markers. By tagging several types of proteins, for example, Werner Knebel, application manager in confocal microscopy at Leica Microsystems, said, "Multiphoton confocal microscopy lets brain tissue be penetrated." With some markers investigators can make *in vivo* measurements on neurobiological changes in whole animals. Knebel added, "As we saw more and more dyes, we developed a detector system for confocal microscopes that lets you scan through a wide range of emission wavelengths by adjusting a slider instead of changing filters."

With continued advances in microscopic techniques, neuroscientists need ways to update instruments as easily as possible. Stephen Ross, senior applications scientist at Nikon Instruments, said, "We are designing instruments that will be much more modular." If a scientist wants to add a laser light source to a microscope, for instance, Ross said, "it won't be necessary to reengineer the entire scope. Instead, you can combine off-the-shelf components to build the system that you want." As an example of the new generation of modular optics, Nikon is now offering an inverted microscope designed for modular components to perform cutting edge techniques like total internal reflection fluorescence. In addition, Nikon just introduced a high performance, low cost confocal microscope that can use a variety of components from various manufacturers.

In considering other advances in imaging for the neurosciences, Ross said, "genetically encoded indicators, like green fluorescent protein, are one of the biggest changes." To resolve these tags, investigators often need a substantial signal-to-noise ratio, especially if the indicator is in tissue or being used *in situ*. Nikon and other manufacturers also see a growing need to simultaneously view more than one tag—or more than one wavelength of light. This technique can be used to simultaneously track, say, more than one protein or even to look at energy transfers in molecular cascades. The latter approach, however, demands quantification of a signal, and Ross said, "There is still no universally accepted protocol on quantifying signals, and we need that to make comparisons between studies."

Even when a neuroscientist can see cells of interest, isolating them can prove demanding. Now, that can be done with Leica's laser microdissecter. Investigators tag specific cells with fluorescence or an immunological stain, and then use a laser to cut out the area for further analysis. Robert Wick, vice president of microscopy in North America for Leica Microsystems, said, "This system has been used to microdissect cells from the dorsal root ganglion for studies of neuropathic pain, hippocampal cells associated with Alzheimer's disease, and neuroblastoma cells." Overall, Wick said, "Leica anticipates customers' needs to create systems that often transcend microscopy."

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Neuroscience: UNRAVELING AND REPAIRING THE HUMAN BRAIN

PROBING FOR POTENTIALS

Beyond seeing the outside of neurons, neuroscientists also explore the activity inside of them. Much of this work focuses on a neuron's membrane, which consists of two layers of lipids with a wide variety of proteins stuck in here and there. This membrane controls what goes into a neuron and what stays outside. More than a century ago, scientists knew that the nerve cell membrane creates a chemical gradient–or different concentrations of ions on the inside and the outside–that generates a voltage, sort of like a little battery lying across the membrane. Proteins play a significant role in the behavior of this membrane. For instance, proteins serve as receptors that recognize specific chemical messengers outside a cell and create ion channels that control a neuron's electrical activity.

When a neuron is not being activated, the voltage across its cell membrane is called a resting membrane potential. When a neurotransmitter interacts with a neuron's membrane, though, ion channels go into action–some opening and others closing–and generate an action potential. A neuroscientist can record this voltage spike by inserting a very small glass electrode inside a cell. In the earliest days of electrical neurophysiology, scientists made their own instruments to record these signals. Today, a wide variety of companies–including **Axon Instruments**, **Harvard Apparatus**, and **Narishige International**–carry a diverse line of tools designed for recording the electrical activity of neurons.

In most experimental situations, recording from neurons begins with locating them. According to Eijsackers: "Many changes in rather ordinary light microscopes also affect neurosciences. For example, we have a microscope in which an investigator can focus it or even switch objectives without touching it." And, any neuroscientist with an electrode in a cell hates to touch anything for fear that the smallest vibration could ruin the recording.

Over the years, neuroscientists used a wide array of compounds to probe the behavior of neurons, especially the signaling mechanisms associated with receptors and ion channels. A new agonist or antagonist for a specific receptor, for example, often generates new directions of experimentation. Today's neuroscientist can select from seemingly endless lists of compounds in a variety of catalogs.

In describing this realm of neuroscience, Keith Watling, director of **Sigma-RBI**, said, "You've really got to keep in touch with the scientists–and know what they're working on–in order to provide them with cutting-edge research tools." As a result, Sigma-RBI provides a wide range of innovative small organic ligands and an array of antibodies to aid the study of receptor and ion channel research, in addition to neurodegeneration and many other areas. Watling said, "Apoptosis, for example, pervades all areas of biology. Perhaps some types of neurodegeneration are associated with an increase in certain apoptotic processes whereas neuroregeneration occurs as a result of a decrease in these mechanisms." In order to maintain a constant stream of novel compounds, Sigma-RBI established strong links with research groups in universities and pharmaceutical companies from whom it licenses numerous drug-like molecules and antibodies for sale to the research community. For example, Sigma-RBI licensed the antidepressant drug fluoxetine, better known as Prozac, which blocks the reuptake of the neurotransmitter serotonin into serotonin-containing neurons in the brain, thereby prolonging its action at serotonergic synapses.

As evidence of its close association with research scientists, Sigma-RBI also produces *The Sigma-RBI Handbook of Receptor Classification and Signal Transduction*. Watling said, "Sigma-RBI collaborates with over 150 scientists worldwide to produce short summaries of the biology and classification of over 80 key enzymes, ion channels, and receptors associated with signal transduction and cell signaling mechanisms." Soon, Sigma-RBI's handbook will be available on the Internet as an e-handbook, in which users can point and click through information.

CULTURING AND COMPOUNDS

Scientists often rely on cell culturing, which requires a host of media and reagents. Growth media, for instance, must be particularly well defined and controlled so that investigators know precisely what is being added to cultured neurons. Then, varying the components reveals a neuron's response to a changing environment. **BioWhittaker**, **Invitrogen**, Sigma-Aldrich, **StemCell Technologies**, and other companies provide such products.

A culture of neural material might contain more than neurons. Neural cells can be classified as neurons, astrocytes, oligodendrites, Schwann cells, or fibroblasts. Each of these cells possesses unique markers that can be used to identify and separate one type of nerve cell from another. Investigators often use antibodies to these markers to differentiate between cell types. Moreover, a neuroscientist can tag an antibody with fluorescein or other molecules, which can be visualized to identify and locate specific proteins. Many companies–including **Amersham Pharmacia Biotech**, **BD Biosciences**, **Chemicon**, Sigma-RBI, and **Zymed Laboratories**–provide antibodies already tagged with markers.

Neuroscientists also explore cells in culture by applying peptides. For example, one neuropeptide, bradykinin, activates pain receptors, induces smooth muscle contraction, activates

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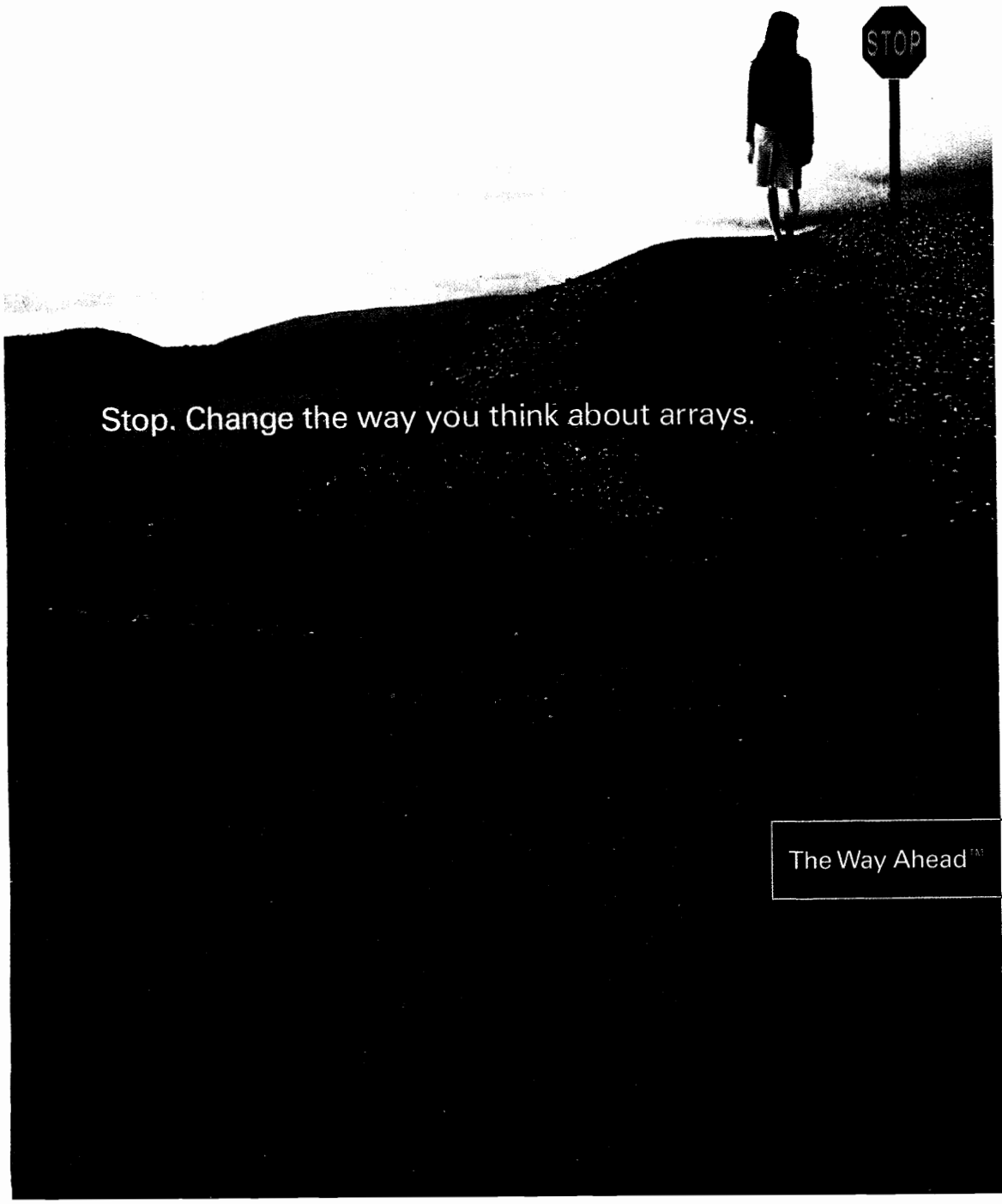

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calcium-dependent nitric oxide synthases, and increases capillary permeability. An investigator adds these molecules to a cell culture to see if they block or activate a particular response, which can reveal how intracellular pathways function. **Bachem**, **Tocris Cookson, Inc.**, and other companies offer neuropeptides and neurotransmitters.

Duncan Crawford, business development manager at Tocris Cookson, said, "We offer a wide line of small molecules and peptides as research tools." For example, Tocris Cookson carries a diverse collection of glutamate agonists and antagonists. Crawford added, "Cannabinoids are doing well out of nowhere. Ten years ago, few investigators wanted these. Once investigators found two endogenous cannabinoid receptors, though, this field became bona fide neuroscience."

Some of the drugs used to treat diseases also become tools for neuroscience research. In fact, some of the drugs that fail in clinical trials turn out to be valuable reagents in basic research. A number of companies—including BD Biosciences, **Calbiochem**, and **ICN Biomedicals**—acquire these drugs from pharmaceutical companies and offer them as research reagents. Other companies search for potential products in research laboratories. Brian Conkle, vice president of marketing and sales for **Alexis Corporation,** said, "Alexis identifies neurobiological compounds from sources, prior to their going through any clinical work." This company's line of neurochemicals includes acetylcholine esterase, monoclonal antibodies, neuropeptides, neurotoxins, and more. Conkle said, "Products that we produce or license are usually novel and extremely difficult to make. Consequently, customers often prefer to buy these compounds instead of investing in a costly synthesis."

In other cases, companies develop their own compounds and generate potential therapeutics from this research. For example, investigators at **Cephalon, Inc.**, started exploring stress-activated protein-kinase pathways, largely in search of components involved in cell death. This work led them to experiments on a molecule called 1347, which enhances the survival of neurons in cell culture and a variety of animal models of disease. This compound is in phase II clinical trials against Parkinson's disease. Jeffry Vaught, president of research and development at Cephalon, said, "Phase I studies have been successfully completed with little to no side effects observed." He added: "Some of our data indicate that 1347 restores some function to damaged neurons in culture." In other words, this compound could prevent further neuron damage associated with Parkinson's disease and possibly repair previously damaged neuron circuits. Investigators at Cephalon also hope that similar compounds might eventually be used against Alzheimer's disease, Huntington's disease, and amyotrophic lateral sclerosis.

SCREENING SCORES OF CELLS

In the early 1970s, **Becton Dickinson** introduced the first commercial flow cytometer, which was called the FACS-1. A few years later, **Ortho-Clinical Diagnostics** followed with its device in this powerful field of cell analysis. A flow cytometer characterizes populations of cells based on inherent cellular properties or fluorescent labels, which can tag markers in or on the surface of specific cells. **Coulter Electronics** later introduced a flow cytometer with multiparameter sorting capability.

Today, more advanced techniques help neuroscientists sort through large numbers of cells. For instance, **Cellomics** focuses on instruments for high content screening, which allows the automated measurement of complex cellular activity, including adhesion, apoptosis, morphological changes, and protein trafficking in a living cell. Coupled with software for image acquisition, analysis, data review, and data reporting, these instruments bring screening to a higher level.

Improved technology also reduces the size and cost of these instruments, including the Guava PC from **Guava Technologies, Inc**. This so-called personal cytometer system provides automated cell counting and viability assays, and includes protein expression and apoptosis applications. This system can work with as little as 50 microliters of cell suspension. Roger O'Neill, vice president of research and development at Guava, said, "We can do absolute cell quantification, without any internal standards, like a fluorescent bead." He added that Guava's system can analyze 1,000 to 2,000 cells in just a few seconds. Also, this system is so small—with a footprint the size of a laptop—and economical that some customers purchase individual machines for each investigator in a laboratory. It's also very easy to use. O'Neill said, "We can teach anybody to use this in a few minutes."

MAKING USE OF MULTIPOTENCY

For decades, developmental biologists speculated about stem cells—cells that can regenerate themselves and create other cell types—but no one had isolated one. Then, in the 1990s, advanced methods ferreted out stem cells in relatively large numbers. Today, scientists know that stem cells in the blastocyst migrate to organ sites during development. These embryonic stem cells create the organs, but some so-called multipotent stem cells, which can make a variety of cell types, remain in the organs. In the adult human brain, for example, multipotent stem cells continue to generate new neurons in the hippocampus, which is related to memory, and in the olfactory bulb, which processes sensory information related to scents.

Our brain seems to make new neurons throughout life. For instance, Gage and his colleagues at The Salk Institute removed stem cells from autopsy material and induced them to make neurons, even in an adult who was 72 years old. Gage sees the challenge as dissecting how this process works in normal development and in disease states. So far, he knows that proliferating cells must be in a specific environment to create neurons. He said, "Our goal is inducing the endogenous cells to whatever path we need." In other words, the proliferating cells in the nervous system might be directed to make neurons or glia wherever it is needed to fend off a variety of diseases.

Still, neuroscientists continue to unravel just how neurogenesis works. Gage said, "We originally thought that neurogenesis in adults would recapitulate ontogeny, but it is different in adults. So, it might rely on different mechanisms." He added: "Neurogenesis even changes as adults change. It decreases with age, but environmental stimulation of an organism can dramatically change neurogenesis." For example, Gage and his colleagues found that exercise can increase the proliferation of neurons in adults.

What is already understood about stem cells, though, drives investigators and companies to create therapies from this knowledge. For instance, NeuroNova AB takes two approaches to using stem cells. First, NeuroNova is looking for ways to trigger stem cells to regenerate deficits resulting from stroke, spinal cord

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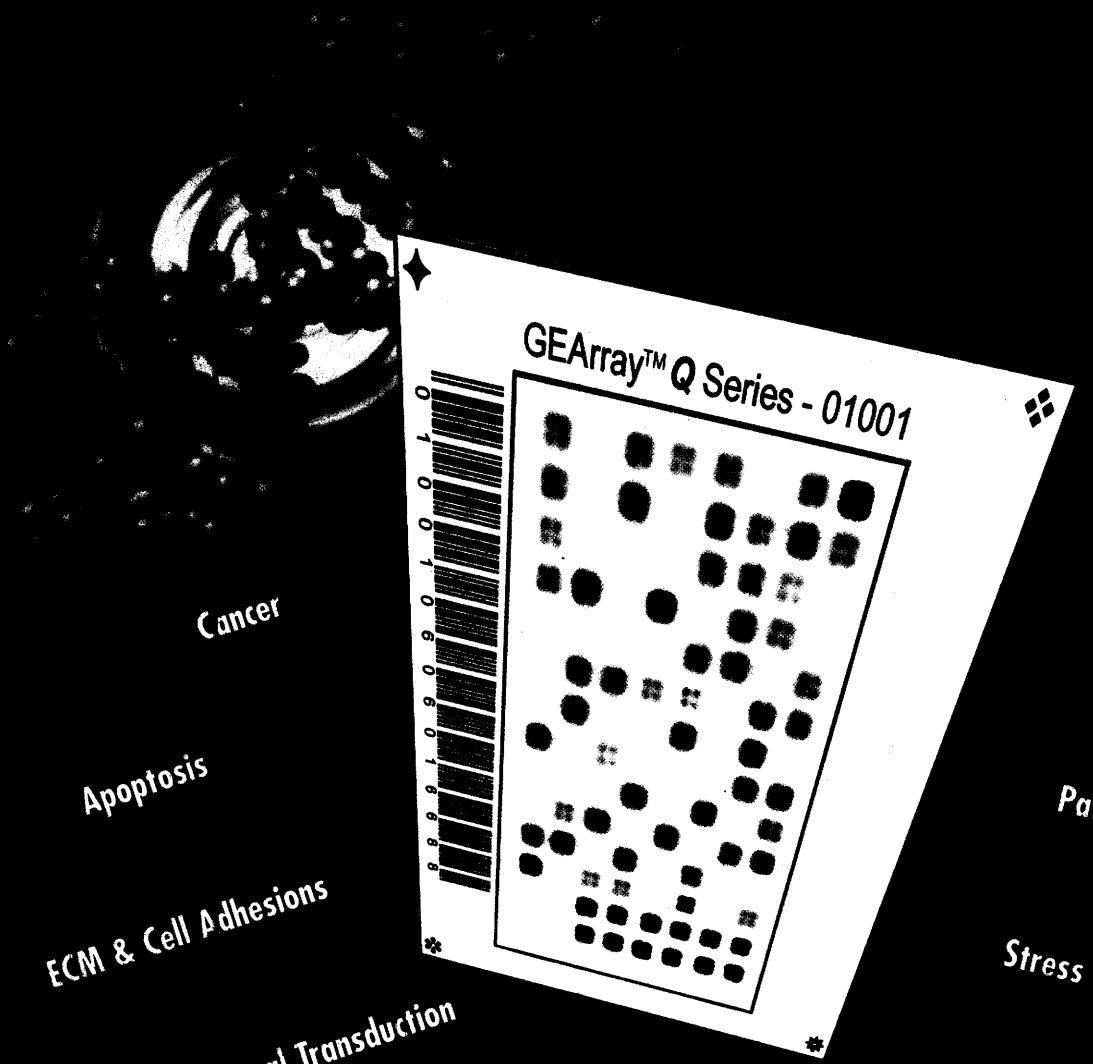

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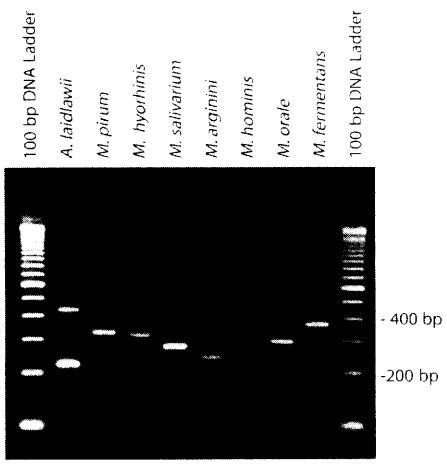

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injuries, or virtually any sort of neural degeneration. Haegerstrand said, "Investigators at NeuroNova are identifying molecular targets and compounds that might trigger neurogenesis." Second, NeuroNova is developing a transplantable cell—specifically, an adult human stem cell that can be made into a dopaminergic cell, which would be used against Parkinson's disease. Eventually, this company hopes to make implantable cells against other diseases as well.

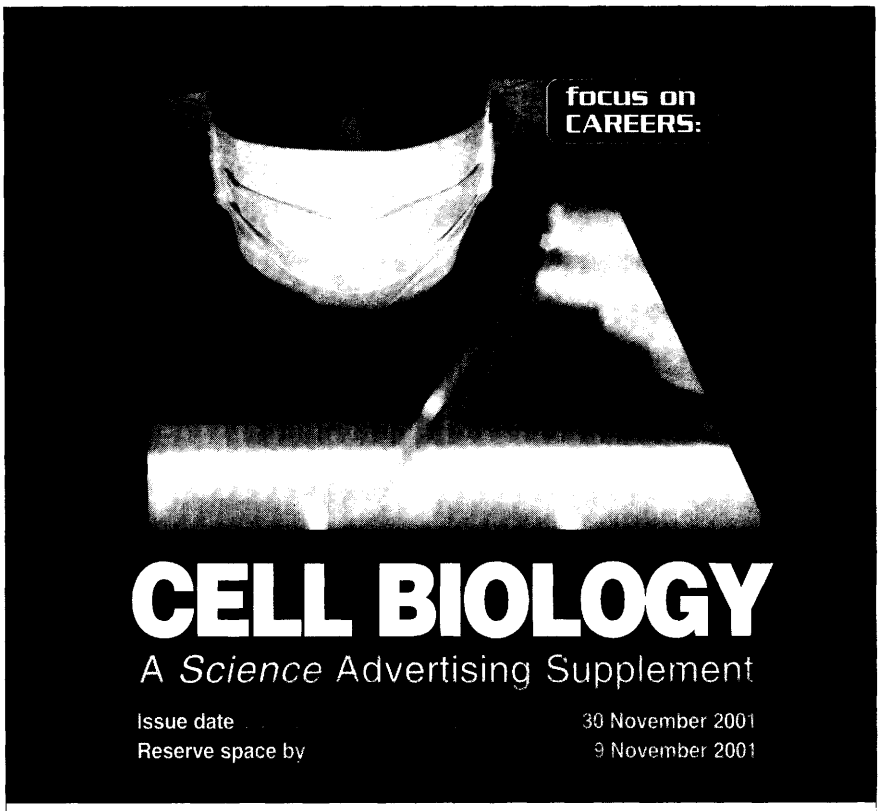
DATABASE USE DOWN THE ROAD

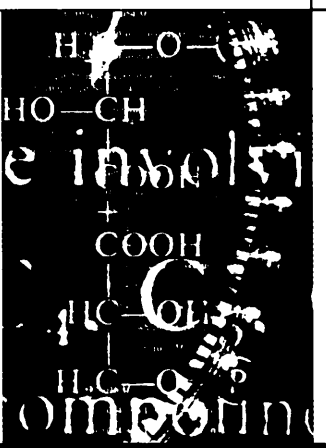
Like virtually all of biology, neuroscience will also take advantage of the human genome sequence. For example, gene probes might reveal which genes and protein products participate in specific brain functions. Genomic and proteomic techniques, however, will generate large volumes of data. According to Floyd Bloom, chairman and chief executive officer at **Neurome, Inc.**: "Currently, bioinformatics is focused mainly on molecular analysis, but analysis of brain circuitry and detailed comprehensive interbrain comparisons are starting to take place, in part stimulated by the **National Institute of Mental Health**'s Human Brain Mapping Project."

Neuroscientists will increasingly apply bioinformatics to their work. To help with that, Neurome brings genomic data to neuroscience to explore neurobiologically based disease and search for preventions and cures. This company develops software that collects, displays, and analyzes three-dimensional data on gene expression in the brain. In addition, a database initiative called GenSAT—funded by the **National Institute of Neurological Disorders and Stroke**—will provide images of gene expression from the brain in a single database.

Regardless of these incredible advances, even more questions remain unanswered. The cause of Alzheimer's disease remains unknown. Neuroscientists can now collect stem cells, but do not know exactly how they create and maintain our nervous system. With so many cells and responsibilities wrapped up in the human brain, today's neuroscience only begins to map its rough terrain. Only the discovery of many more details can complete this mental map.

Mike May is a freelance writer based in Clinton, Connecticut, U.S.A. Gary Heebner is president of Cell Associates, a scientific marketing firm in Foristell, Missouri, U.S.A.





HOT CAREERS

Beyond Biology's Bounds

by Peter Gwynne

Key advances in life science demand more than basic biological training. Students who want to work at the cutting edge need familiarity with – and even cross-training in – physical science, mathematics, and computer science.

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Scientist - Rapid Throughput Screening
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Senior Scientist - Computational Genomics
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Scientist - Cell Cycle Analysis
Seeking BS/MS level scientist to join Functional Genomics Group. Responsibilities include identifying genes relevant in cell cycle regulation. Successful candidate will have strong background in cell cycle analysis, proficiency in flow cytometry, experience in cell culture and quantitative RT-PCR. **Reference Code 606-EK.**

Scientist - Biochemistry/Molecular Biology
Research position available in multidisciplinary research group investigating the molecular mechanisms of action of antisense oligonucleotides. Candidate will have a BS/MS with minimum 2 yrs experience in general molecular biology and biochemistry techniques. Experience in either: (1) cloning, protein expression and purification and/or (2) classical enzyme kinetic techniques a plus. Candidate must be creative, team-oriented, able to work independently and manage multiple projects. Attention to detail, strong organizational and communication skills are essential. **Reference Code 616-WL.**

Scientist - Custom Target Validation
GeneTrove™ division seeks a scientist (BS/MS) to join the Custom Target Validation group for the characterization of antisense inhibitors inhibiting novel gene targets. Responsibilities include cellular transfection of antisense compounds, RNA isolation, and quantitative RT-PCR. Successful candidate will have experience in cellular and molecular biology and strong computer skills. Experience with robotics/assay automation desirable. **Reference Code 610-BG.**

Sr. Scientist - Custom Target Validation
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HOT CAREERS

Beyond Biology's Bounds

"The old order changeth, yielding place to new." More than a century after British poet Alfred Lord Tennyson wrote them, those words have particular resonance in the world of life science. Efforts to understand the basic causes of diseases and to use that knowledge to develop means of diagnosing and treating those same diseases rely on tools and technologies unavailable just a few years ago. Life scientists who want to understand how to use the tools and how to interpret the results they yield must move outside the restrictions of their classical disciplines and learn how to contribute effectively to multidisciplinary teams.

Those demanding requirements have an up side. The blossoming of technology has created a need for scientists with the ability to think in new and different ways. In other words, hot new careers beckon individuals prepared to put in the work necessary to understand the complexity of 21st century life science.

The most obvious hot areas rely on computational skills. Bioinformatics, statistical biology, and computational biology have gained huge prestige in the past few years, as leaders of academic and industrial research groups have come to realize the value of those subdisciplines in interpreting the vast amounts of data produced by high throughput forms of investigation and analysis. Given the extraordinary rate at which these techniques produce data, many observers believe that a basic knowledge of bioinformatics will soon be essential for every serious life scientist. Students who move into biology to avoid mathematics will have to sign up for the calculus courses that they missed if they want to work in a hot field.

Biologists aren't the only scientists grasping creative opportunities. Mathematicians and physicists increasingly find that life science labs in industry and academe offer problems as challenging as those in, say, cosmology and elementary particle physics. Laboratory managers value such scientists for their precise thinking; they regard the task of training them in the mores of biology as a relatively simple one.

Hot careers don't stem entirely from new fields. One traditional discipline is making a remarkable comeback in a slightly different guise. Biochemistry, dismissed not many years ago as molecular biology lite, has gained new prominence in the form of proteomics, a hot new field that does for proteins what genomics has achieved for DNA.

Like other hot disciplines, proteomics involves more than classical scientific training. Practitioners must be prepared to design experiments for the spectrum of new tools now available and to consult with computational experts in figuring out ways to interpret the results of those experiments. Indeed, comfort with multidisciplinary teamwork has become essential in life science. Just as physicists with widely varying skills combine to design and carry out experiments on particle accelerators that reveal the fundamental secrets of matter, so scientists with diverse backgrounds now set up and implement research projects that explore the fundamentals of life and the causes and treatment of disease.

The need for diverse backgrounds doesn't apply solely to teams. To earn the opportunity to join scientific teams at the cutting edge of research, individual scientists must put themselves through a kind of cross-training that exposes them to subjects outside – sometimes far outside – their own specialties. That can be difficult, as many academic departments retain traditional disciplinary boundaries. However, recruiters point out that young scientists truly motivated to work at the cutting edge of research will find ways to gain the extra training – through internships, for example.

Here we talk to representatives of two nonprofit research centers, two academic institutions, four companies, and a government laboratory. Their views about which careers are truly hot differ somewhat according to their organizations' backgrounds. But they all agree on two essentials for life scientists who want to work on the cutting edge of their fields. They must learn as much as they can as early as they can about computing and related disciplines. And they must gain experience working in multidisciplinary teams.

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

BILL GEDDES

Bruce Stillman

COLD SPRING HARBOR, New York: The Cold Spring Harbor Laboratory undertakes research and educational programs on cancer, neurobiology, plant genetics, genomics, and bioinformatics. Those areas of concentration put the laboratory routinely in touch with hot areas of life science. "Because we teach advanced courses we have always tried to be innovative," says laboratory director Bruce Stillman. "We have about 8,000 scientists coming through here annually and we hear a lot from them. We try to introduce the new technologies as quickly as possible."

That effort gives Stillman a close-up view of emerging hot fields. "Computational biology is a very hot area at the moment," he says. "It's not just informatics. One main part of it involves pulling together pieces of information from the literature and making connections or predictions about protein function. That type of information science is attracting a lot of people from computer science, physics, and mathematics. In our experience scientists coming from those fields are very good. They need to interact with biologists but they bring the necessary tools." The fact that 7 out of the laboratory's 45 faculty members specialize in some

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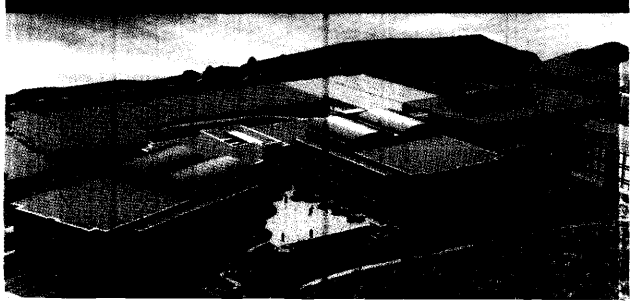

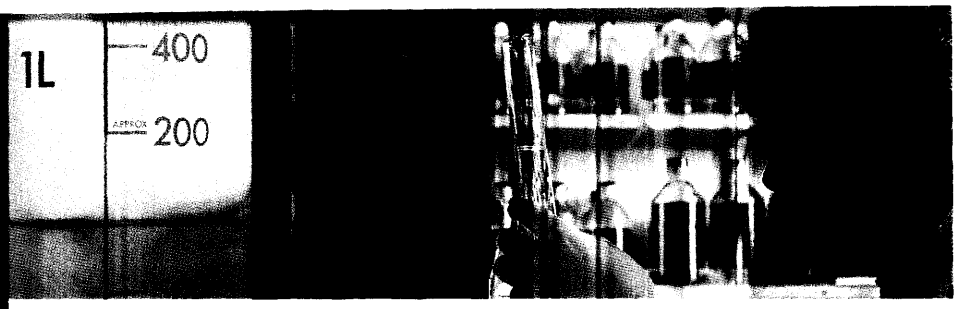

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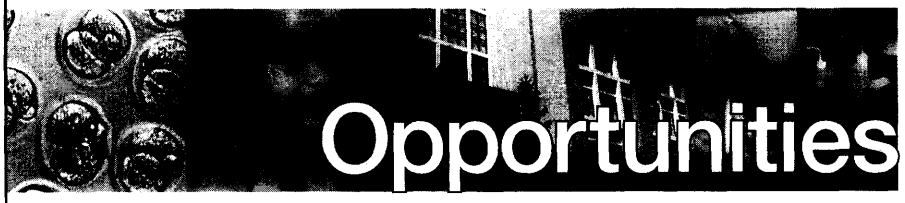

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Children's Hospital Research Foundation
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Visual Systems Development

Children's Hospital Research Foundation in Cincinnati, Ohio, has begun a well-funded initiative in Visual Systems Development as a combined endeavor of the Divisions of Ophthalmology, Developmental Biology and Human Genetics. The Visual Systems Development group will comprise four basic research labs working in areas relevant to the eye. To establish this group, three tenure-track faculty positions are offered. Applications are invited for:

Position 1: Assistant or Associate Professor in Human Genetics of the Eye

The successful candidate will hold M.D. and/or Ph.D. degrees and will establish a vigorous research program investigating the genetic basis of eye or visual system disorders using the strategies of human genetics. The position will provide a generous package of remuneration and startup support, as well as access to the patient resources of the Division of Ophthalmology. The successful candidate will be encouraged to work closely with clinical and bioinformatics faculty. This position will be a joint appointment in the Divisions of Pediatric Ophthalmology, Human Genetics and Developmental Biology.

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The successful candidates will hold M.D. and/or Ph.D. degrees and will establish vigorous research programs investigating some aspect of eye development. Individuals using both vertebrate and invertebrate systems are encouraged to apply. The positions will provide generous packages of remuneration and startup support. These two positions will be joint appointments in the Divisions of Pediatric Ophthalmology and Developmental Biology.

To Apply

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Richard A. Lang, Ph.D.
Emma and Irving Goldman Scholar
Division of Developmental Biology and Department of Ophthalmology
Children's Hospital Research Foundation
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Cincinnati, OH 45229-3039
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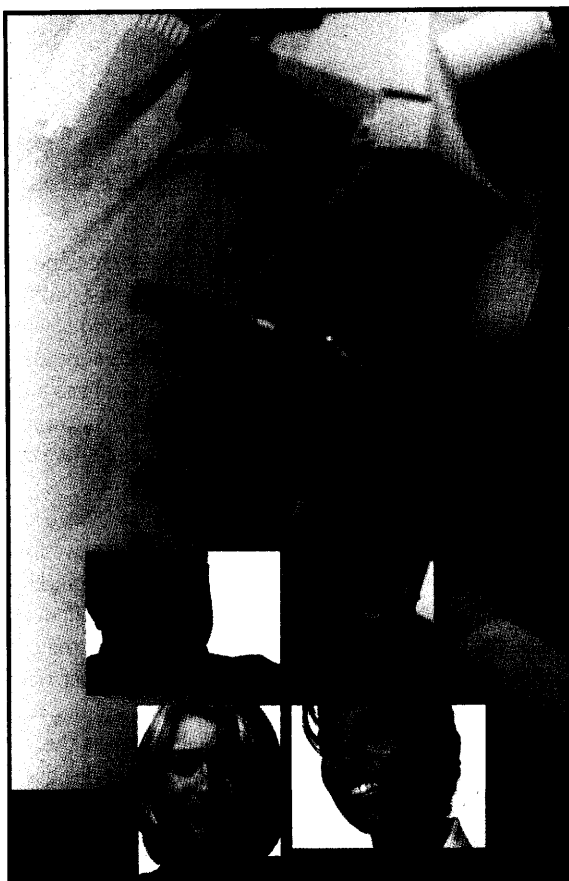

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aspect of computational biology, including genomics, informatics, and computational neuroscience, indicates the demand for scientists qualified in that broad field.

Another hot area relates more directly to conventional life science. "Whole organism physiology involves looking at the whole organism or the whole tissue, not only the genome," Stillman says. "Many different changes in a cell or tissue can be analyzed at a single time. DNA microarrays are an obvious example of research in this area, and so are mass spectrometry and protein microarrays. They are used with modern, high resolution imaging technologies. Combinations of these technologies have the potential to rapidly advance cancer therapy research, a hot topic at Cold Spring Harbor."

The old order isn't entirely ignored. "A traditionally strong field that is bounding back is biochemistry," Stillman says. "It got a bad rap in the past when many deserted it and became molecular biologists. Now molecular biology is reverting back to biochemistry, also known as proteomics." In addition, he continues, "Neuroscience will remain big. We see that reflected in the courses we teach at Cold Spring Harbor. We've expanded our own research focus in neuroscience to integrated systems level analyses that have incorporated DNA arrays as readouts of neural systems."

Unusually, the institution doesn't demand postdoctoral experience by applicants for its faculty positions. "Since I've been director I've hired scientists directly from Ph.D. studies. We have a formal program for hiring people straight out of graduate schools," Stillman says. "A level of maturity comes with doing a postdoctoral fellowship, but if people are good they don't necessarily get better by doing a postdoctoral fellowship. This works for a place like Cold Spring Harbor but it is unlikely that universities will start hiring graduate students onto their faculties."

Stillman warns students to be leery about jumping on the closest scientific bandwagon, particularly if it involves new methodologies. "Techniques will come and go in science, but young people should probably focus on fundamental biological problems," he says. "And they should not worry about how many people are in the field, as there are always important questions to ask; they can find their niche."


Greg Naeve

SAN DIEGO, California: From the viewpoint of Greg Naeve, principal scientist at Neurocrine Biosciences, Inc., the hot areas of life science are those that have developed momentum in recent years. "Oncology, neuroinflammation, autoimmunity, and stem cells are hot," he says. "So is looking at intracellular targets for drug discovery. Pharmacogenomics has developed rapidly over the past year. And a small-time player is nanotechnology; we see that coming across our desks more and more."

Neurocrine uses novel technologies and hot fields of life science to drive the discovery and development of therapies for neuropsychiatric, neuroinflammatory, and neurodegenerative diseases and disorders. "We try not to restrict ourselves," says Naeve. "We have a variety of targets to go after. We're more of a small pharmaceutical company than a platform-based biotechnology firm. But we like to use our biotech based agility."

The five compounds that Neurocrine has in clinical trials illustrate its dedication to moving products to the market. "A lot of our hires are in development and associated areas," Naeve says. "Over the past two years we have grown particularly fast in the area of development. And we have recently started a chemistry scale-up group."

At the research level the company emphasizes flexibility. "We're looking for good scientists," he continues. "To maintain our agility we try to have people with broad backgrounds and the ability to move quickly in different fields. We expect scientists to be able to move fast from one project to another in the context of research teams." Most of the company's researchers have training in chemistry or biology. However, Naeve says, "When recruiting we look favorably at scientists with a strong foundation and practical knowledge across the basic sciences, as this provides the basis for developing the tools that allow you to be creative."

The roughly 100 members of the company's research group are divided evenly between Ph.D.s and scientists with lower degrees. In addition, Naeve says, "We have just instigated a healthy postdoctoral program. It's fantastic for a company our size as we have a lot of basic science questions while at the same time being focused on getting products out."

How should life science students prepare for careers in the pharmaceutical business? "Read outside your field," Naeve advises. "That's a common thing we find among a lot of our scientists. You never know when an application might come from a field far away from your own."


James Landers

CHARLOTTESVILLE, Virginia: "In many ways the hot disciplines are essentially subdisciplines of the old guard," asserts James Landers, professor of chemistry and associate professor of pathology at the University of Virginia. "For example, we still need to understand how cancer develops and what the markers are for specific cancers. Miniaturization with other improved technological advances, most stemming from efforts in analytical chemistry, will eventually allow us to do that better, faster, and more cost effectively. Ultrafast protein sequencing linked to mass spectrometry is one good example. There are also micro analysis systems such as lab-on-a-chip, where people are attempting to integrate benchtop procedures into a microdevice format to execute assays with smaller samples, less expensively, and more rapidly."

Virginia's chemistry department is heavily involved in this type of approach. "Don Hunt's team is exploiting proteomics as an approach for understanding cancer, trying to define the differences between neoplastic and normal cells," Landers says. "This is taking mass spectrometry in a direction that was not anticipated 20 years ago. Moreover it presents a new analytical tool with tremendous power." In his own laboratory, Landers adds, "We are working with microchip technology designed to improve diagnos-

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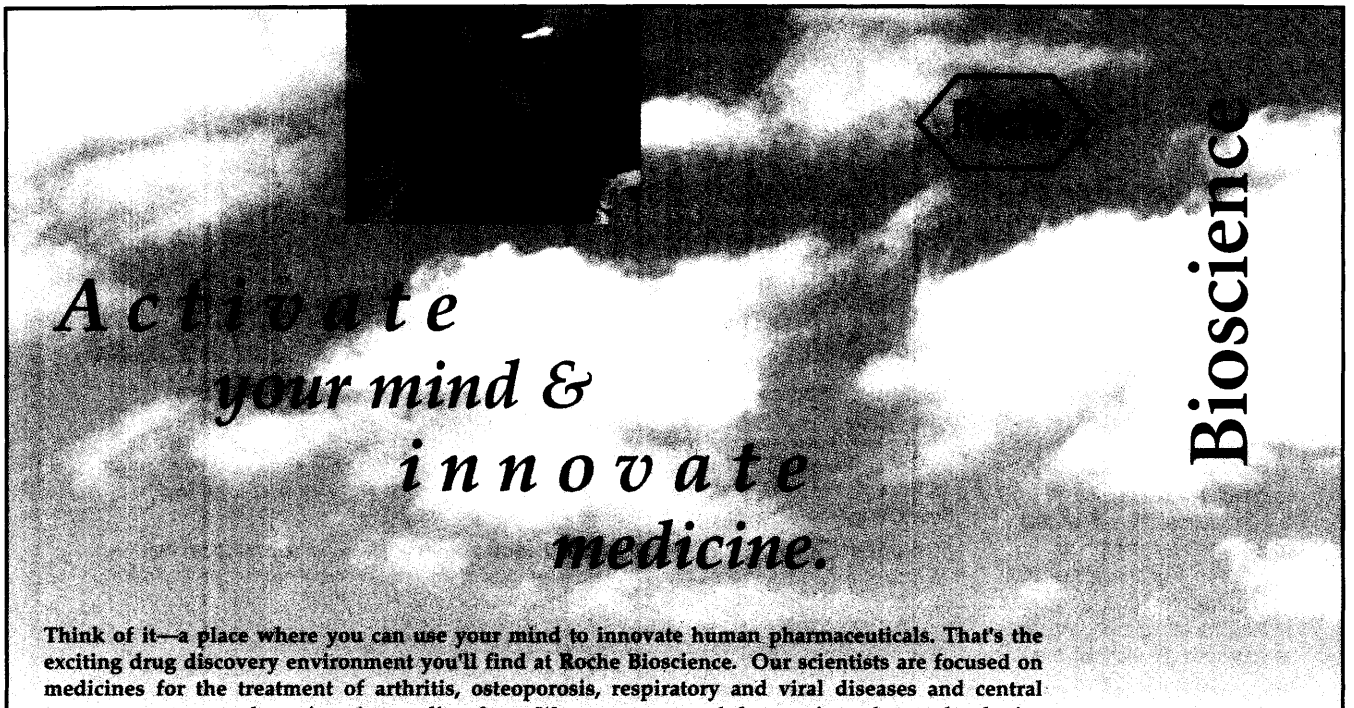

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Enzymology

This senior team member working closely with the Medicinal Chemistry and Structural Biology groups will establish a compound and enzyme analysis lab, focusing on the analysis of enzyme-substrate interactions. Requires a PhD, 0-5 years postdoctoral research and experience in enzymatic assay design and the analysis of enzyme-substrate interactions. Experience with automation and electronic data management is a plus. Job Code: 2472-SCI

Molecular/Cellular Biology

Working with Cell Biology groups, you will establish and analyze viral replication models and cellular enzyme activities and work with the Protein Expression group to optimize protein expression constructs. Requires a PhD, 0-5 years postdoctoral research and experience in cloning, recombinant DNA and cell culture techniques. Strong knowledge of construct optimization, analysis of cellular enzyme activity and cell fractionation is also required. Job Code: 2471-SCI

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Scientist/Senior Scientist, Protein Biochemistry (job code NAUSRD001199)
A Ph.D. is required in Protein Chemistry or Biochemistry, and extensive experience in developing purification processes for soluble and insoluble recombinant proteins from a variety of expression systems (bacterial, yeast, insect, mammalian). Requires hands-on knowledge of standard chromatography procedures, instrumentation and scale-up (ion exchange, hydrophobic interaction, size exclusion, affinity chromatographicsl FPLC, HPLC, Vision workstations). Successful track record of purifying 20-50 milligram quantities of protein with sufficient quality for crystallization, structural studies, HTS and assay development. Strong protein analytical skills preferred. Experience working with GPCRs is a plus.

Scientist/Senior Scientist, Bioinformatics (job code NAUSRD001127)
The selected candidate will possess a Ph.D. in bioinformatics, computer science, or molecular biology/ biochemistry. Background in molecular biology, computational and mathematical skills, and experience in using computational tools to analyze gene expression data are necessary. Applicants should have user-level experience with UNIX, relational databases, GCG, SQL, and a scripting language.

Principal Researcher, Bioinformatics (job code NAUSRD001115)
An individual is needed with a B.S./M.S. in computer sicence, bioinformatics or molecular biology/biochemistry. Computational and mathematical skills, background in molecular biology and experience in using computational tools to analyze gene expression data are necessary. Applicant should have user-level experience with UNIX relational databases. Experience with scripting languages (Perl) and web oriented programming (CGI) a plus. Programming skills in a computationally oriented language (Java, C, or C++) is desirable.

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An individual with a B.S./M.S. in Protein chemistry or Biochemistry and 2-4 years of laboratory experience is required. You will be a key member of a team of molecular biologists and biochemists responsible for developing purification processes for a diverse group of recombinant proteins from a variety of expression systems. Requires hands-on knowledge of standard chromatography procedures and instrumentation (ion exchange, hyrophobic interaction, size exclusion, affinity chromatographies; FPLC, HPLC, Vision workstations). Successful track record of purifying 20-50 milligram quantities of protein with sufficient quality for crystallization, structural studies, HTS and assay development is a plus. Strong protein analytical skills preferred.

Senior Researcher, In Vitro Validation (job code NAUSRD001263)
B.S. or M.S. in Cell or Molecular Biology with experience in maintenance and propagation or mammalian cell culture, optimization and development of biochemical assays, protein purification, Western blotting, RNA extraction, cloning, transfection and gene overexpression and other molecular biology techniques. The individual will be expected to have strong computer knowledge, organizational and data alanysis skills. This position will be involved in supporting multiple research projects. Thus the individual is expected to work well in the team environment with good oral and written communications skills.

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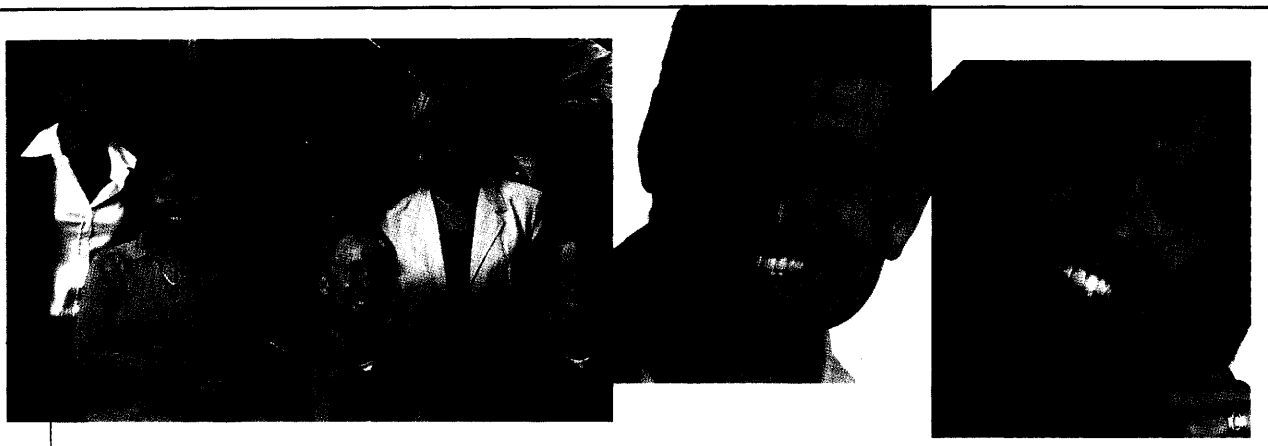

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You will develop/perform *in vitro* metabolism studies and permeation/transport assays. You will need a PhD-level qualification in Drug Metabolism, Enzymology, Pharmaceutical Sciences, Analytical Chemistry or Pharmacology, familiarity with hepatocytes, cell culture systems and HPLC and LC/MS analytical technology, and a strong publishing record. A solid understanding of membrane transporters or experience in identifying structures of metabolites in a biological matrix would be an advantage. **Job Code: 01-200**

ASSOCIATE SCIENTIST/SENIOR RESEARCH ASSOCIATE
PK/METABOLISM

You will develop/perform *in vitro* metabolism studies and permeation/transport assays. We require a BS with 4+ years or an MS with 2+ years of relevant experience, including familiarity with microsomal metabolic stability assays, cytochrome P450 inhibition, hepatocytes, cell culture systems and HPLC and LC/MS analytical instrument operation. **Job Code: 01-205**

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Lead a group responsible for the evaluation of physiochemical properties, characterization of new drug candidates, and formulation development of all therapeutic agents in clinical development. You'll provide input on various drug delivery systems, be involved in the development of compositions and help identify appropriate vehicles to support Discovery Biology and Safety Evaluation for new drug candidates. We will also rely on you to take the lead on technology transfer activities and work closely with contract manufacturing facilities to manufacture GMP supplies for clinical studies. Along with a PhD in Pharmaceutical Chemistry, Pharmaceutics, or Analytical Chemistry, you will need a minimum of 5+ years industry experience demonstrating a solid understanding of the fundamentals of physical-organic chemistry and/or pharmaceutical chemistry. Candidates with an MS degree and 8+ years experience will also be considered. Formulation and process development expertise relative to parenterals and solid dosage forms, plus exceptional communication skills will also be required. **Job Code: 01-201**

SCIENTIST/RESEARCH SCIENTIST
PK/METABOLISM

You will conduct pharmacokinetic analysis, maintain pharmacokinetic database, and write pharmacokinetic/toxicokinetic study reports in a preclinical setting with some participation in clinical research. Along with PhD-level qualification in Drug Metabolism, Pharmaceutical Sciences, or Pharmacology, you must be familiar with *in vivo* PK studies and WinNonlin modeling. Excellent interpersonal skills and a strong publishing record are also required. A solid understanding of PK/PD modeling and population PK modeling would be an advantage. **Job Code: 01-206**

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You will characterize and evaluate the physiochemical properties of new drug candidates. You will also develop compositions, identify appropriate vehicles to support Discovery Biology, and perform safety evaluations of new drug candidates. Specific functions will include designing experiments, conducting experiments to measure solubility, evaluating solid-state stability and solution stability in support of identification, and selecting appropriate dosage forms to support clinical trials. We require an MS in Chemistry, Pharmacy or Analytical Chemistry with a minimum of 1 year related experience or a BS degree with at least 3 years experience. Your background must demonstrate an understanding of the fundamentals of physical-organic chemistry and/or the basic principles of pharmaceutical chemistry. Experience with HPLC and pharmaceutical analysis is highly desirable. **Job Code: 01-188**

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tics. Our fundamental goal is to try to improve the speed at which diagnostics can be carried out. Earlier diagnosis will ultimately lead to expedited treatment, which has obvious value with certain diseases, like cancer."

Microminiaturization research is interdisciplinary and demands skills and knowledge beyond the traditional boundaries of a chemistry team. "It's not just a biochemical, clinical, or analytical challenge," says Landers. "It involves engineering, software development, and microfluidic design. In that light it's very multidisciplinary. We have learned that we have to bring other skills to the table in order to effectively tackle the whole problem."

This multidisciplinary nature of the research has an impact on students and their education at the graduate level. "They come into my lab as chemistry or biochemistry students," says Landers. "But by the time they leave they will have learned how to write programs with science based software; they will have learned some fundamentals of engineering; and they will have gained hands-on experience building and using instrumentation. I believe they leave with a much broader knowledge base than they would have obtained in a classical chemistry or biochemistry laboratory."

In addition to research projects, the department's graduate students can expand their intellectual horizons in the lecture hall. For example, the chemistry department at UVA has allowed a biomedical engineering course taught in another department to count as part of its core curriculum. "Multidisciplinary education has become an important part of what we and others do," says Landers. "We have to step outside the bounds of the traditional chemistry curriculum. Many companies who hire analytical chemists ultimately don't have them do analytical chemistry. And as part of multidisciplinary teams you have to be able to appreciate what other team members do. You can only appreciate it by having experienced it."

Landers advises chemistry students to learn about computing and math at the undergraduate level. "If you have those fundamentals when you enter a graduate program and if you understand some fundamental aspects of engineering, you won't have as much catching up to do," he says. "Get a degree in a subject that interests you and has market value, but don't shy away form spreading your wings at the undergraduate level."


Keith Hall

CAMBRIDGE, Massachusetts: Biogen, Inc., is a biopharmaceutical company that focuses on novel products to treat inflammatory and autoimmune diseases, neurological diseases, cancer, fibrosis, and congestive heart failure. Its hot fields cover a broad spectrum, from bioinformatics to regulatory affairs and from quality assurance and control to pharmaceutical development.

Biogen's viewing bioinformatics as a hot field comes as no surprise. Almost every life science company is looking for individuals qualified in that subdiscipline. "It is indeed an exciting area," says Keith Hall, Biogen's head of employment. "It's expanding rapidly and we want to be in the forefront of recruiting." Regulatory affairs is a more unexpected hot field. However, Biogen has emerged as a pioneer in the area. "We are the first company to do a totally electronic submission for a drug," explains Hall. "We are looking for scientists, mostly at the Ph.D. level, familiar with clinical data and who have experience with electronic submissions."

The company also wants individuals who can undertake key tasks in drug production. "We have very interesting needs in the quality assurance and quality control areas for Ph.D. scientists and engineers," says Hall. "We are also looking for scientific and engineering talent for 'pharmaceutical development.' These people will be responsible for taking a drug product at a very early stage and helping our manufacturing people to make it repetitively on a large scale."

Biogen puts a strong emphasis on teamwork. "Most of the candidates who come to our attention have worked in collegial or collaborative situations," Hall points out. "They are familiar with 'cross-functional learning,' which is so collaborative that it becomes seamless."

Recruits have the opportunity to ease into the corporate culture. "We build flexibility into our training," Hall says. "We also try to add a degree of formality to our human resource planning. In their first year here all individuals have a formal development plan that allows them to merge their own objectives with the company's." To encourage employees to gain broad experience, Biogen sometimes rotates assignments – for example, sending specialists in regulatory affairs into manufacturing or quality assurance.

Hall advises scientists considering a career in Biogen or any other pharmaceutical company to think in broad terms. "Research is the foundation of our company; Biogen is a winner of the United States National Medal of Technology," he points out. "In addition to the pure research interest, it is always an advantage for candidates to talk about the value and importance of commercialization. Our pipeline is the most robust in our history because we have employees who relish the science and who also understand that a product that meets unmet medical needs is a wonderful conclusion to high quality research."


Melissa Evans

LA JOLLA, California: "Immunology is our largest department and so tends to be our hottest area," says Melissa Evans, employment and systems manager at the Scripps Research Institute. "For those positions we are looking for experience in immunology and molecular biology skills. Approximately six months ago protein biochemistry became important as the area of proteomics has become hot."

The institute, a private nonprofit organization, uses interdisciplinary programs to pursue basic research in the biosciences and to train researchers before and after they receive their Ph.D.s. While it relies mainly on funds from the National Institutes of Health, it also undertakes collaborative research partnerships with pharmaceutical companies.

Typically principal investigators select postdoctoral fellows for their labs, while Evans's department recruits lab technicians and other employees with qualifications up to the M.S. level. "The P.I.s often prefer

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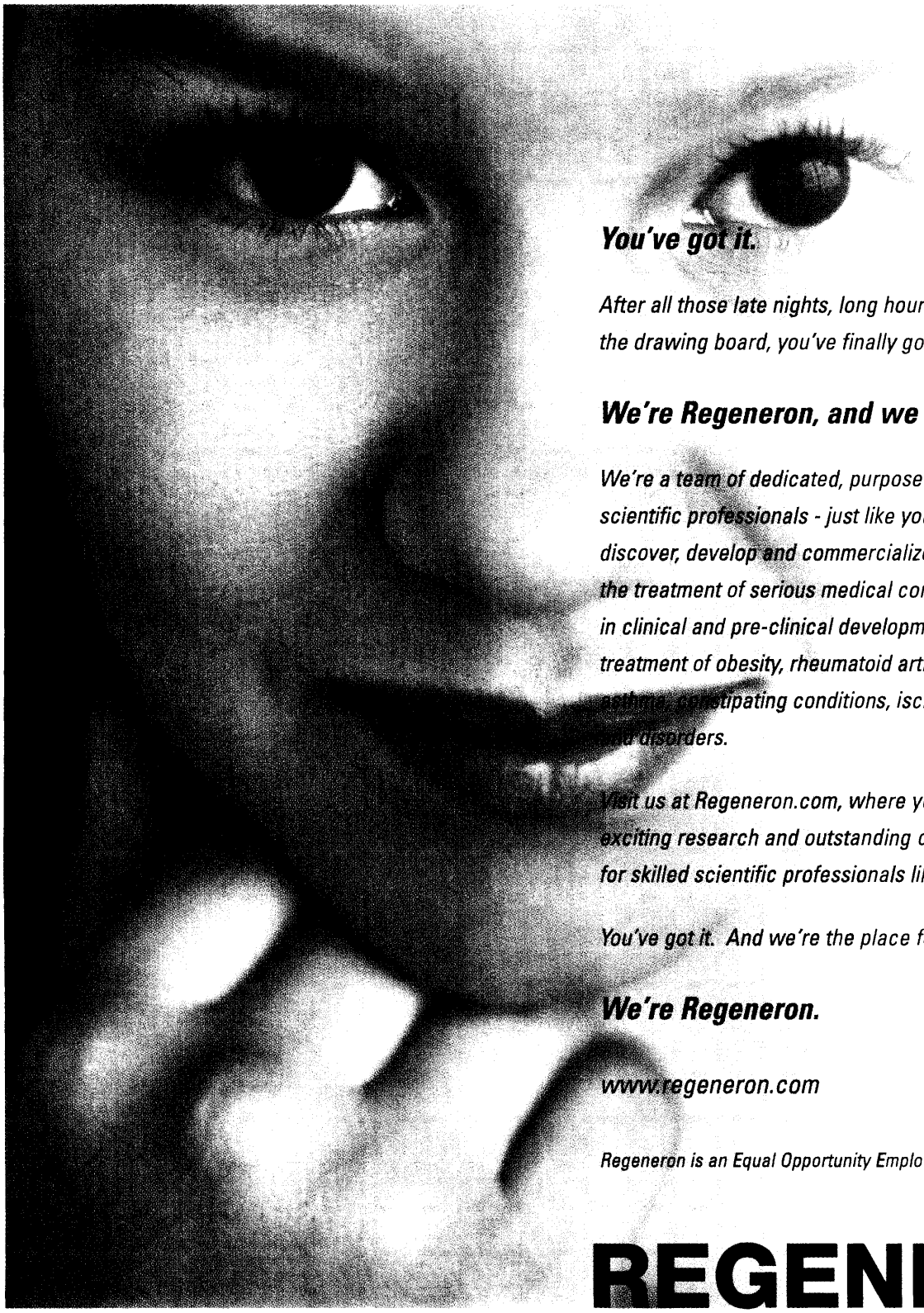

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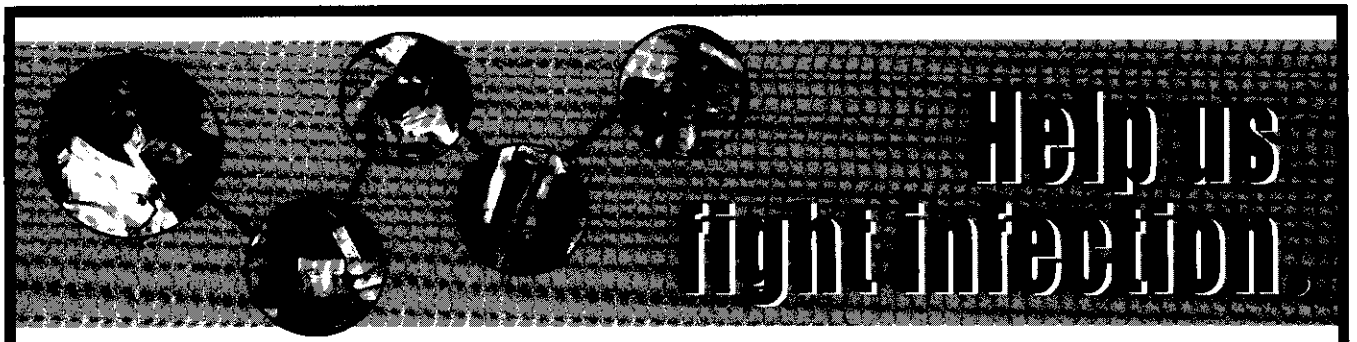

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Experimental Therapeutics and Pharmacodynamics

Research Scientist in Experimental Therapeutics and Pharmacodynamics

Play a key role in the development, implementation, and design of in vitro/in vivo experiments employing pharmacokinetic/pharmacodynamic principles in the evaluation of compounds emerging from discovery programs, as well those in preclinical, and clinical stages of drug development as part of the drug evaluation strategies for bacterial and fungal programs of the Company. Requires advanced degree in the biological, microbiological, or pharmacological sciences, and 3 (5 for Masters) or more years of relevant experience in experimental therapeutics/pharmacology, immunology, or pathogenesis. Industrial experience preferred. Experience in the development of models for evaluation of antifungal agents also desired.

Natural Products Isolation

Research Associate

Isolate and characterize bioactive compounds from microbial fermentation. The work will involve extraction, preparative column chromatography, bioassay of column fractions, analysis of column fractions by HPLC, working up combined column fractions, and developing subsequent chromatographic purification methods. Requires BS or MS in Chemistry with research experience in organic or natural products chemistry. Familiarity with the use of analytical and preparative HPLC is required. An MS candidate (or equivalent based on BS plus experience) would be expected to have considerably more laboratory experience, as well as publications in refereed journals. Experience in determining the structures of organic compounds using NMR and mass spectroscopy is highly desirable.

Analytical Chemistry

Scientist

Perform analytical and preformulation studies as part of a multidisciplinary team conducting drug discovery research. Primary functions include assessment of purity, solubility and stability of new chemical substances using high-performance liquid chromatography (HPLC). Additional activities include determination of structures of degradation products suing mass spectrometry, summarizing results in formal reports, and supplying information on methods and procedures to other scientists. Requires BS or MS in Analytical Chemistry with at least 1 year of research experience in experimental analytical chemistry. An MS candidate (or equivalent based on BS plus experience) would be expected to have considerably more laboratory experience, as well as publications in refereed journals. A sound understanding of the theory and application of separations technology is required.

Medicinal Chemistry

Research Associate

Conduct synthesis, isolation and identification of organic compounds for biological evaluation. The ability to solve problems using general scientific principles and standard laboratory techniques in the field of organic chemistry is essential. Requires a BS or MS in Organic or Medicinal Chemistry with emphasis on experimental synthetic organic chemistry, with a minimum of one year of independent research experience.

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Postdoctoral Fellow – Fungal Genetics

You will use molecular genetics, proprietary sequence resources and animal model systems to explore infection and pathogenesis of a human fungal pathogen. You will have a PhD in molecular biology or related field and 1-2 years of postdoctoral experience. A background in fungal genetics is desirable. **Job Code: PAD/SCJ/SRI/2205HS**

Postdoctoral Fellow – Allergy

You will conduct research to investigate novel ion targets that involve activation of ion channels using patch-clamp techniques and single cell Ca++ imaging systems. PhD in physiology/pharmacology or a related field and experience with ion channel regulation in single cells, including a background in electrophysiology/pharmacology required. Expertise in patch-clamp techniques is also necessary. **Job Code: PAD/SCJ/SRI/2214HS**

MS Research Associate – Genomics – Allergy

You will participate in genomic research and drug discovery projects in allergic diseases. This involves performing experiments such as gene expression, protein purification, enzymatic assay development and compound screen. MS in biology or a related field and 3+ years of experience in a biochemistry or molecular biology lab, including a background in biochemistry and protein purification, enzymatic assay, HPLC and Western Blot required. Knowledge of recombinant DNA techniques is desirable. Familiarity with mammalian cell culture techniques is a plus. **Job Code: PAD/SCJ/SRI/2240HS**

Research Associate - CNS Pharmacology

Focusing on molecular targets for obesity, psychiatric and neurodegenerative disease, you will clone and express genes of interest in heterologous expression systems to develop high throughput assays and provide screening tools for new target discovery areas. BS/MS and experience in molecular biology, biochemistry or a related life science (preferably in a pharmaceutical/ biotechnology setting) including a background in cloning, expression, protein purification/characterization and tissue culture required. Excellent organizational, PC and oral/written communications skills are essential. Industrial experience with cell-based assays, assay development for high throughput screening, enzyme assays and radioligand binding assays is highly desirable. **Job Code: PAD/SCJ/SRI/2419HS**

BS/MS Research Associate – Antibacterial/ Antifungal Drug Discovery

You will collaborate with an antibacterial and antifungal drug discovery team. BS/MS in molecular biology or a related field and 3+ years of experience in microbial genetics, molecular biology, protein purification and enzyme characterization is ideal. **Job Code: PAD/SCJ/SRI/2268HS**

BS/MS Research Associate -- Molecular Genetics – Flow Cytometry

You will perform sample preparation, cell staining, sample acquisition and analysis as well as mouse handling and phenotyping, tissue harvesting, magnetic cell separations, cell cultures, ELISAs and molecular techniques such as RT-PCR and real-time PCR. BS or MS in molecular genetics, immunology or a related field and 2+ years of flow cytometry experience required. **Job Code: PAD/SCJ/SRI/2029HS**

BS/MS Research Associate – Genomics – Immunology

You will participate in genomic cloning, design and preparation of targeting vectors and transgenes as well as generation and expression analysis of transgenic mice. BS/MS in molecular genetics, immunology or a related field, and 2+ years of experience in molecular biology/cloning/ES cess manipulation required, as are communications, organizational and PC skills. A background in quantitative PCR (Taqman) is a plus. **Job Code: PAD/SCJ/SRI/2030HS**

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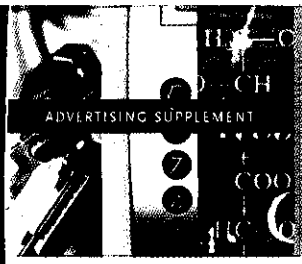

HOT CAREERS
Beyond Biology's Bounds

experience in protein biochemistry," says Evans. "We have a bit more flexibility with entry level candidates at the Master's level and below."

Cross-training plays an important role in the institute's activities. "The postdoctoral fellows tend to train the people at lower levels," Evans explains. "Our labs are very good at helping people to get a wide breadth of knowledge. The research covers multiple disciplines and individual principal investigators' labs do a spectrum of work. We also have specialized core facilities to which other laboratories may outsource work such as DNA sequencing and synthesis, flow cytometry, microscopy, and animal resources." The facilities also include a Cray supercomputer, X-ray crystallography laboratories, and high performance NMR spectroscopy.

The institute's organization encourages a team based approach to research. Each of the 14 buildings consists of a central galleria with laboratories and offices around its perimeter.

Evans suggests that students who wish to join the institute should obtain some basic research skills as undergraduates. "If you aren't able to take the appropriate classes and obtain the skills, try to volunteer in a lab to get that initial exposure," she advises. "It's like an unpaid internship that is mutually beneficial for both parties."


Michael Kane

ANN ARBOR, Michigan: The business environment is changing rapidly for Genomic Solutions, a company whose products and services permit clients to determine the activity level of genes and to isolate, identify, and characterize proteins. "A year ago I would have said that genomics and bioinformatics need to work together," says Michael Kane, the company's vice president of research. "Now it's bioinformatics and proteomics. Fortunately protein analysis tools and computational protein structure prediction has been an active area of research for over 10 years; yet significant room for improvement exists."

Bioinformatics and related statistical fields form a foundation for the company's activities. "Beyond general lack of experience in bioinformatics among employment candidates in the life sciences, one of the challenges we face is limited ability in applying higher math and statistical approaches to solve biological problems," Kane says. "The idea of bioinformatics is to take existing information and derive biological advances from it. We also need to establish efficient approaches to mining the data by combining math and logistics."

Certainly programmers can program scientists' tools to mine data. "But the life scientist needs to be capable of clearly defining objectives to enable the appropriate software engineering," Kane continues. Thus Genomic Solutions is seeking B.S./M.S. scientists who have experience in bench work. "We value people who embody professionalism and are very open to training, with professional expectations in line with what the company can offer them," Kane says. "Equally important, Ph.D. and postdoctoral scientists who have experience employing genomic and proteomic tools to solve a research problem are like gold. Scientists with those skills are highly sought and therefore rare, because they can add value to research efforts across the pharmaceutical and biotechnology industries."

For work on bioinformatics proper, says Kane, "an M.S. degree in a computational or statistical discipline is powerful. We can train those people to understand the objectives in life science research. What's most important is that they have experience in managing and mining large databases. In many ways these employees can be more objective and more valuable than bench scientists. Many have been working with computers all their young adult lives; the ability to overcome computational obstacles can be priceless when you have project time lines."

Kane advises students to use their initiative to prepare themselves for careers in bioinformatics. "Many academic curricula do not really offer any course work to support you in bioinformatics," he says. "So you have to break your bounds and get cross-trained, by hooking up with specialists in your college or by linking up with internships. The challenge for B.S./M.S. level people is that their course work may not reflect both the computational and biological tasks needed in the life sciences industry. But creative and enthusiastic people can find ways to become cross-trained in statistics, computational skills, and life sciences."


Bruno Sobral

BLACKSBURG, Virginia: Created just 14 months ago on the campus of Virginia Tech, the Virginia Bioinformatics Institute is intellectually located at the region where life science and computing meet. "We see our real contribution as trying to understand how living organisms function," says director Bruno Sobral.

To achieve that goal, the institute is recruiting scientists with backgrounds in physics, mathematics, modeling, and simulation. "Some of the very hot disciplines in life science have to do with biostatistics and statistical genetics," Sobral says. "Anything related to the data analysis side, such as statistical and numerical modeling and capabilities in neural network, is useful. People with experience in databases, particularly from the perspective of being able to integrate heterogeneous data and adapt formats into a working system, are extremely valuable."

Many of the institute's recruits want to solve truly tough scientific problems. "We're providing a path for mathematicians who wanted to get into biology but didn't find sequencing enough of a challenge for them," Sobral comments. "We do the same for physicists who previously thought that elementary particle physics and astrophysics offered the only real challenges." A collaboration with Sun Microsystems provides its own intriguing environment for experts in information technology.

The institute doesn't ignore classically trained life scientists. "Most of our senior people have some biology background even if it's theoretical," Sobral notes. However, the institute's balance is clearly toward the physical and computing sciences. "Our long-term steady state goal is to have 60 percent of people with a theoretical mathematical background and 40 per-

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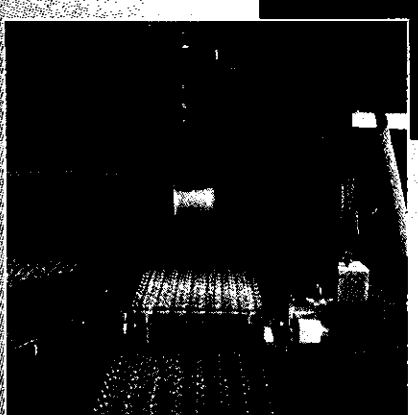
Molecular Biologist - Characterization

The successful candidate will join or lead a group focused on the discovery of chemical and physical characterization of proteins, including the determination of microheterogeneity and post-translational modification. Preferred candidate will also have a familiarity with analytical concerns relating to IND filing. (job code 11134)

Molecular Biologist - Expression

The successful candidate will join or lead a group devoted to the production of a wide range of proteins, including antibodies, both at small scale suitable for in vitro research and at larger scale for animal efficacy studies. The position requires a strong background in bacterial, insect and mammalian expression systems and the ability to evaluate and implement novel expression strategies. (job code 11114)



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HOT CAREERS
Beyond Biology's Bounds

cent involved in wet chemistry," Sobral explains. "The extent to which people are cross-trained is critical. Our belief is that the quantum leaps will be made at the interfaces between experimentalists and theoreticians."

Sobral regards mathematical and computing skills as more important than life science backgrounds in his recruits. "We're willing to reach out to people with quantitative skills and bring them up to speed. We would rather hire them than scientists who went into biology because they hated math," he says. "We've been fortunate that the biology people based here understand the concepts of computational techniques." He adds that individuals with a background in life science who are nevertheless committed to mathematics receive on-the-job training.

Sobral wants to expand the size of the faculty from the present nine members by adding endowed chairs and associate professorships. In addition to research, the faculty has the task of giving graduate students early exposure to bioinformatics and related computational fields.

As Sobral sees it, a computational background provides scientists with large numbers of career possibilities. By contrast, he says, "Molecular biologists are a dime a dozen; their opportunities are limited unless they can move into the bioinformatics area." Hence his advice to life scientists: "Get as many important quantitative skills as you can, the sooner the better. Take the database courses, the statistics courses, and the calculus courses." How about individuals with computer skills but little formal knowledge of life science? "Ask yourself," he advises, "if you have a passion for biology that can be ignited."

INDIANAPOLIS, Indiana: Pharmaceutical research and development firm Eli Lilly and Company regards the hot areas of science as "anywhere that we see technology and science coming together," says Nancy Lange, director of U.S. recruiting and staffing. "That means bioinformatics, genomics, and combinatorial chemistry." Those fields aren't entirely new to Lilly. "But what has changed in recent months," says Lange, "is the supply and demand ratio. Skill sets are becoming far more specialized and we're looking for more skill sets than there are people who have them."

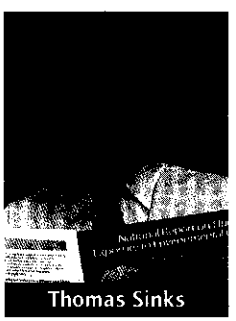
One of the company's strongest focus areas is biotechnology. "Our biotechnology strategy is driving our pipeline, which holds 10 drug products for potential launch in the next four years," Lange says. "Here we want to hire biochemists, molecular biologists, and scientists with backgrounds in genomic and gene expression technology. In all cases candidates who have outstanding scientific skills and experience with the information technology side are the ones we're looking for." The company doesn't restrict its intake to life scientists. "We have an ongoing need for physical scientists," Lange continues.

Lilly hires at all levels of training. Roughly 75 percent of its scientists have B.S. or M.S. degrees while the rest have Ph.D.s. "But it takes talent at all levels to get a product discovered and launched," Lange says.

It also takes flexibility. "Candidates can contribute by using the skills in which they have been trained," says Lange. "But their careers can go into other directions, such as regulatory affairs, technical services, and even manufacturing. Good scientists can apply their innovative abilities in several parts of the company. We've had many scientists come in and discover that they can use their skill sets in areas they had no knowledge of when they arrived."

The company actively helps scientists to gain new skills. "We have a number of internal courses," Lange notes. "We also do 'shared learning,' in which groups of people come together to talk about a problem and look at solutions that did and didn't work. And we encourage our scientists to go to outside symposia and training courses."

Teamwork plays a major role in the activity of Lilly and other large pharmas. Thus Lange advises students interested in finding hot careers in the pharmaceutical industry to work on their collegial skills. "Collaboration and team approaches are very much the way in which business is done," she says. "So develop the ability to share your ideas. Hone in on your skills of collaborating and leading." She adds one other piece of advice: "While you are still in the academic environment, expose yourself to industry through internships."


Thomas Sinks

ATLANTA, Georgia: The Centers for Disease Control and Prevention's National Center for Environment and Health (NCEH) has the goal of preventing illness, disability, and death from interactions between people and the environment. The center is particularly committed to safeguarding the health of population groups such as children, the elderly, and individuals with disabilities that are especially vulnerable to specific environmental hazards.

That broad mission means that the center seeks scientists with a wide variety of backgrounds for its cutting-edge work. "Our hot areas include medicine, chemistry, genetics, epidemiology, social and behavioral sciences, informatics, and toxicology," says Thomas Sinks, the center's associate director for science. The relative importance of those fields can vary as the center's priorities change.

NCEH hires mainly at the Ph.D. level, but it occasionally has vacancies for scientists with M.S. degrees. A key factor in hiring, says Sinks, is candidates' grasp of new tools and methodologies. "Some of the most successful scientists of each generation are those who apply new technologies to their field for the first time," he explains. "So understanding the basics of these technologies will be helpful when you want to apply them to a new situation."

Sinks has another piece of advice for students who want to prepare for careers in hot fields of life science. "Try to gain real life experience," he suggests, "by volunteering alongside scientists whom you aspire to be like." ■

For further valuable career features, go to sciencecareers.org, then click on Advice and Perspectives.

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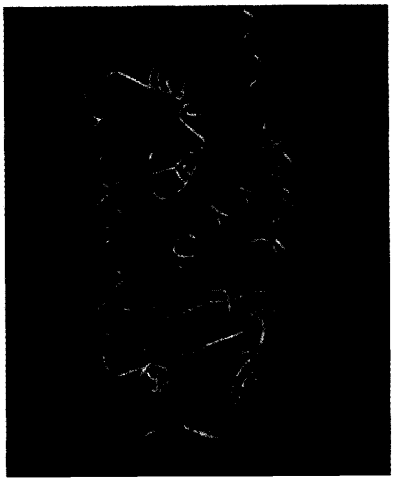

If you have a strong work ethic, entrepreneurial spirit, sense of discovery and are in search of a career in the cutting edge industry of biotechnology, then **Plexxikon Inc. is your career.**

At Plexxikon, the secret of our success is our team of highly motivated, talented, energetic scientists who want to make a difference in the arena of Life Sciences.

As we expand our interests and our science, we seek intelligent, talented people who want to take part in a stimulating work environment. Located in Berkeley, California, our multidisciplinary facility is operated by a culturally diverse staff and is supported by a proven management team.

All levels of positions are available within:

Protein chemistry
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Protein Crystallography
Assay Development and Screening
Synthetic Organic Chemistry
Computational Chemistry

Available Senior Positions:

Head of Drug Discovery: 10 plus years experience in medicinal chemistry research and a strong leadership track record in delivery of compounds to preclinical development. Candidates with success in integrating diverse technologies and innovative methods for drug discovery highly desired.

Senior Director of Structural Biology: 5 plus years experience in structure-based drug discovery with a proven research track record in X-ray crystallography. Must have a desire to integrate high-throughput protein crystallography with other technologies for advancing structural chemistry.

Resumes should be sent to: Plexxikon Inc. 91 Bolivar Drive, Suite A, Berkeley, California 94710.

Email: careers@plexxikon.com

Emailed resumes should be attached as Text or Word documents.
Please see our website for more information. www.plexxikon.com

Tel: 510.647.4000 Fax: 510.647.4090

Plexxikon

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SUNY Upstate Medical University
POSTDOCTORAL OPPORTUNITIES

SUNY Upstate Medical University at Syracuse is one of the 125 academic medical centers in the United States which support medical schools and teaching hospitals. They lead the nation in conducting biomedical research, educating the best health professionals and providing cutting edge health-care. SUNY Upstate employs over 5,300 including physicians, educators, nurses, clinicians, researchers and support staff. Postdoctoral associates and fellows are valued members of the Upstate community. We currently have Postdoctoral opportunities available in the following areas:

Department of Biochemistry and Molecular Biology

Patricia Kane, Ph.D.; KanePM@mail.upstate.edu
V-ATPases and cellular pH homeostasis

Department of Cell and Developmental Biology

Scott D. Blystone, Ph.D.; BlystonS@mail.upstate.edu
Leukocyte integrin activation

Jim McCasland, Ph.D.; MccaslaJ@mail.upstate.edu
Cortical development and plasticity

Chris Turner, Ph.D.; TurnerCE@upstate.edu
Paxillin and signal transduction

Department of Microbiology and Immunology

Arthur Andrew Hurwitz, Ph.D.; HurwitzA@mail.upstate.edu
http://web.upstate.edu:80/TUMORLAB/index.html
T cell activation in the anti-tumor and autoimmune responses

Steven Taffet, Ph.D.; TaffetS@mail.upstate.edu
Regulation of connexin43 channels

Departments of Microbiology and Immunology; Medicine

Andras Perl, M.D./Ph.D.; PerlA@upstate.edu
Autoimmunity, apoptosis, molecular genetics

Department of Neuroscience and Physiology

Michael Miller, Ph.D.; MillerMW@upstate.edu
Development of CNS neurons

Max Mozell, Ph.D.; MozellM@upstate.edu
Neurophysiology of olfacatory discrimination

Sandra Mooney, Ph.D.; MooneyS@mail.upstate.edu
Fetal alcohol effects on the brain

Ruth Yokoyama, Ph.D.; YokoyamR@upstate.edu
Molecular neurotoxicity

Steven Youngentob, Ph.D.; YoungenS@mail.upstate.edu
Olfactory neurobehavior

Department of Neurosurgery

Blair Calancie, Ph.D.; CalanciB@upstate.edu
Spinal cord injury; clinical neurophysiology; rehabilitation

Gregory Canute, Ph.D.; CanuteG@upstate.edu
Brain Tumor Research Laboratory; brain tumor genetics and development of new therapeutics

Department of Orthopedic Surgery

Timothy Damron, M.D.; DamronT@upstate.edu
Radiation and radioprotectant effects on growth plate

Department of Pharmacology

Jacques Beaumont, Ph.D.; beaumont@sundance.pharm.upstate.edu
Computer modeling in cardiac electrophysiology; computational biology; large scale simulations

Mario Delmar, M.D./Ph.D.; DelmarM@mail.upstate.edu
Secondary structure-regulation of connexin43 channels

Ying Huang, M.D./Ph.D.; HuangY@upstate.edu
Cell signaling; oncogene and tumor suppressor genes; cancer biology

Jose Jalife, M.D.; JalifeJ@upstate.edu
Cardiac electrophysiology; molecular mechanisms of cardiac arrhythmias

M. Saeed Sheikh, M.D./Ph.D.; SheikhM@upstate.edu
Apoptotic signaling; molecular targeted therapy; cancer biology

Richard Veenstra, Ph.D.; VeenstrR@mail.upstate.edu
Structure/function of gap junction permeability and regulation

Richard Wojcikiewicz, Ph.D.; WojcikiR@mail.upstate.edu
IP3 receptors, intracellular signaling, ubiquitination

Please directly apply via e-mail to the Researcher in whose field you are interested.

State University of New York
Upstate Medical University
Formerly known as SUNY Health Science Center

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Faculty Position in Molecular Neuroscience

Washington University in St. Louis
SCHOOL OF MEDICINE

Department of Anatomy and Neurobiology

We seek an individual taking innovative molecular or cellular approaches to fundamental questions in neural development, function, or behavior for a tenure track position as Assistant Professor in the Department of Anatomy and Neurobiology at Washington University School of Medicine (**http://thalamus.wustl.edu**). The department houses 25 active research labs in neurobiology, and it is part of a much larger interdepartmental neuroscience program (**http://thalamus.wustl.edu/Neuroweb**). Excellent shared facilities are available for molecular and cellular neuroscience, including imaging (electron, confocal and two-photon microscopy), and mouse genetics (generation and behavioral analysis of transgenic and knockout lines). Both the department and the neuroscience program offer numerous opportunities for scientific interactions and collaborations.

Send synopsis of research interests and a CV, and names and phone/fax/email of three references to: **Dr. David Van Essen, Anatomy and Neurobiology, Box 8108, Search Committee, Washington University School of Medicine, 660 S. Euclid Ave., St. Louis, MO 63110**, by December 1, 2001, or send as ONE email attachment to **susan@pcg.wustl.edu**.

AAEOE. Applications from minorities and women are encouraged.

Assistant Professor - Environmental Toxicology
UC Santa Cruz

The graduate program in Environmental Toxicology at the University of California, Santa Cruz invites applications for a tenure track position at the Assistant Professor level. We are interested in candidates with a strong, extramurally fundable research program with demonstrated expertise in organic contaminants in aquatic environments. This may include the introduction, transport, and the fate of organic contaminants in the environment, and the mechanisms underlying their metabolic fate and toxicity. The candidate will be expected to teach both graduate and undergraduate classes in Environmental Toxicology, and to actively participate in the ongoing development of the department and graduate program in Environmental Toxicology. Postdoctoral experience is preferred. The campus is especially interested in candidates who can contribute to the diversity and excellence of the academic community through their research, teaching and/or service.

Rank: Assistant Professor
Salary: $46,100 - $51,400

Minimum Qualifications: Ph.D. or equivalent in Biology, Biochemistry, Chemistry, Earth Science, Oceanography and/or Toxicology, or a related field completed or expected by effective date, a demonstrated record of research excellence and potential to obtain external funding, and a commitment to and talent for teaching at undergraduate and graduate levels. Position Available: July 1, 2002.

Apply to: Applicants should submit a curriculum vitae, a brief description of research and teaching interests, copies of reprints, and three confidential letters of recommendation to: **Chair, Environmental Toxicology Search Committee, Department of Environmental Toxicology, 269 Jack Baskin Engineering Bldg., University of California, Santa Cruz, CA 95064.** Please refer to Position #565 in all correspondence. **Closing Date:** January 2, 2002.

Visit the Environmental Toxicology website at:
http://natsci.ucsc.edu/acad/etox/

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Seeking molecular biologists with experience in molecular biology techniques, recombinant DNA techniques, mammalian tissue culture studies, and gene expression.

4) **BS/MS/Ph.D. CELLULAR BIOLOGISTS**
Seeking individuals with cell biology and tissue culture experience.

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Seeking microbiologists with basic micro techniques understanding of aseptic techniques.

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Seeking individuals in biological sciences with experience in statistical genetics interface.

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Seeking in vivo pharmacologists with technical expertise in in vivo pharmacology and in vivo modeling.

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9) **MS/Ph.D. TOXICOLOGISTS**
Seeking individuals with expertise in toxicological testing to determine safety of pharmaceutical compounds.

10) **MS/Ph.D. HEALTH OUTCOMES RESEARCH ASSOCIATES**
Seeking qualified candidates with an educational background in Economics/ Pharmacoeconomics and expertise in incorporating, analyzing, and reporting health outcomes data.

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EMBL

The European Bioinformatics Institute (EBI)
Hinxton, nr. Cambridge, UK

The European Molecular Biology Laboratory (EMBL), an international research organisation with its Headquarters Laboratory in Heidelberg (Germany), Outstations situated in Grenoble (France), Hamburg (Germany) and Hinxton (UK), and a Research Programme at Monterotondo (Italy) has the following vacancies **at the European Bioinformatics Institute (EBI) in Hinxton, UK:**

GROUP LEADERS IN BIOINFORMATICS AT EBI

The European Bioinformatics Institute wishes to recruit outstanding young research group leaders in Bioinformatics. Currently we have expertise in computational analysis of genomes, protein sequence and structure and functional classification. Recent funding increases allow us to strengthen and complement our research focus by establishing new groups in one or more of the following areas:

- Analysis of molecular complexes, pathways and networks
- The evolution of sequence, structure and function to relate genotype to phenotype
- Chemo-informatics in relation to biology
- Deciphering transcriptome/proteome data to understand biological processes
- The molecular basis of disease
- Algorithm development for biology

The EBI provides a world-class research environment and is committed to fostering top quality interdisciplinary research in a highly collaborative international culture.

As the European Centre for the international archiving for DNA and protein sequence data, genome data, protein structure data, GO, and expression data, the opportunities for better data integration, analysis and understanding are enormous.

Informal enquiries are welcomed and can be made to the Director, Professor J. Thornton **(thornton@ebi.ac.uk)**

Commencing date: Spring 2002
Closing date for applications: 15 December 2001

WWW pages: http://www.embl-heidelberg.de/
and **http://www.ebi.ac.uk/**

EMBL is an inclusive, equal opportunity employer offering attractive conditions and benefits appropriate to an international organisation.

Applicants should submit a curriculum vitae, quoting ref. no. 01/160, with a concise description of research interests and future plans, and should arrange for three letters of recommendation to be sent to:

The Personnel Section, EMBL, Postfach 10.2209, D-69012 Heidelberg, Germany. Fax: +49 6221 387555; email: jobs@embl-heidelberg.de

ARRAY BIOPHARMA

Array BioPharma is a publicly held drug discovery company creating new drug candidates through the integration of chemistry, structural biology and informatics. We collaborate with leading pharmaceutical and biotechnology companies to identify novel small molecule drugs. We leverage our drug discovery platform to develop our own pipeline of proprietary drug candidates. To expand this discovery platform, Array is seeking to hire pragmatic, driven scientists to lead from the bench in our discovery biology group. The following positions are available:

DIRECTOR OF DISCOVERY BIOLOGY
We are seeking a Director of Discovery Biology with a Ph.D. and 10+ years relevant experience in small molecule drug discovery biology programs. Experience in proposing projects, validating targets, and participating in teams that are responsible for moving pre-clinical candidates to clinical development is required. Expertise in leading teams responsible for protein production and characterization, cell biology, assay development, high throughput screening, or animal pharmacology is essential. Strong interpersonal and leadership skills are required.

GROUP LEADER/SCIENTISTS-CELL BIOLOGISTS
We are seeking highly motivated individuals with a Ph.D. and 5+ years (Group Leader)/2+ years (Scientists) of experience in cell biology to support small molecule drug discovery programs. Extensive experience in functional assay development and excellent skills in experimental interpretation is essential. Expertise in oncology and inflammation assays is preferred. Experience in designing systems to validate targets and identify new pathways are desired for the senior level position. The group leader position will have supervisory and laboratory responsibilities.

PROTEIN CHEMISTS
We are seeking highly motivated individuals with a Ph.D. and 4+ years of industrial experience purifying multi-milligram quantities of recombinantly expressed proteins for crystallography and high throughput screening. Extensive experience in refolding proteins and purifying non-tagged proteins is required. Experience in protein characterization and enzymology is desired.

ASSAY DEVELOPMENT SCIENTISTS
We are seeking a highly motivated individuals with Ph.D. and 2+ years of relevant experience in a pharmaceutical drug discovery environment. Extensive experience in developing numerous assays applicable to the areas of enzymology, *in vitro* drug metabolism and cellular drug profiling is required. Experience in the use of automated screening systems and biological database software packages is desired. Strong data interpretation and quantitative analysis skills are critical.

HTS/AUTOMATION SCIENTISTS
We are seeking a highly motivated individuals with 5+ years of relevant experience in a pharmaceutical drug discovery environment. Extensive experience in automating assays in 384 well format, use of automated screening systems and biological database software packages is required. Strong interpersonal skills and equipment trouble-shooting skills are required.

We offer an excellent compensation package including competitive salary, stock options, comprehensive benefits, and the opportunity to be a part of a growing team of experienced scientists who want to revolutionize drug discovery. Array is located in state-of-the-art facilities in Boulder and Longmont, Colorado, a gateway community to the Rocky Mountains, providing a high quality of life. Please go to www.arraybiopharma.com to learn more about our organization.

For consideration, please apply to: Array BioPharma, Attn: Human Resources, 3200 Walnut Street, Boulder, CO 80301, hr@arraybiopharma.com or by FAX at 303-381-6638. Array is an equal opportunity employer

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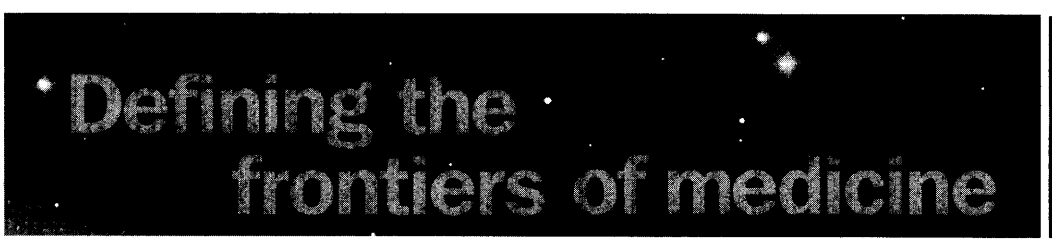
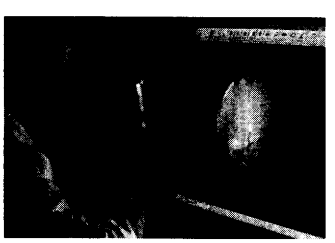


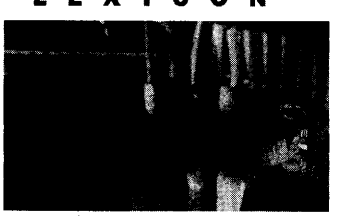


Lexicon Genetics Incorporated is a drug discovery company of the post-genome era and a leader in defining gene function for the discovery of pharmaceutical products.

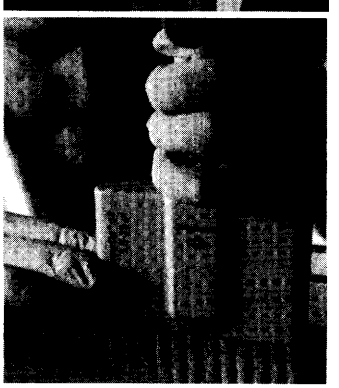
At Lexicon Genetics, we believe our people are a key source of our success. As an employee, you will have the opportunity to make significant, personal contributions to the growth and development of our company. Lexicon Genetics is dedicated to providing its employees with competitive salaries, stock options, and a comprehensive benefits program.

LEXICON

PHARMACOLOGISTS
We are seeking experienced pharmacologists with demonstrated expertise in one or more of the following areas: Immunology, Neurology, Diabetes and Obesity and/or Cardiovascular disease. Successful candidates will have a Ph.D. and/or M.D. and at least 3 years experience testing drugs in *in vivo* models in a pharmaceutical company. Responsibilities will include setting up *in vivo* models for one of the above areas and testing pharmacological agents from our drug discovery projects.



SCIENTISTS, DRUG METABOLISM
We are seeking Scientists with a Ph.D. and/or M.D. with hands-on experience in drug metabolism and pharmacokinetics in the pharmaceutical industry. The sucessful candidate will be able to set up and perform *in vitro* and *in vivo* assays to determine oral bioavailability, pharmacokinetics and other relevant parameters used during lead optimization.



Interested candidates should respond to: Human Resources, 4000 Research Forest Drive, The Woodlands, TX 77381, fax 281-863-8050, or e-mail mvoigt@lexgen.com. For more information on our company, please visit www.lexicon-genetics.com.

Opportunity in suburban Philadelphia, PA.

Assay Developer/Enzymologist

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Steve DiNardo, Ph.D., Chair
Faculty Search Committee
c/o Ms. K. P. Sheppard
Cell & Dev Biology
1157 BRB II/III
421 Curie Boulevard
University of Pennsylvania
School of Medicine
Philadelphia, PA 19104-6058 USA

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Assistant/Associate Professor
Ovarian Cancer Center of Excellence
Magee-Womens Research Institute/
University of Pittsburgh Cancer Center

The University of Pittsburgh, Department of Obstetrics, Gynecology and Reproductive Sciences in collaboration with Magee-Womens Research Institute and the University of Pittsburgh Cancer Institute are seeking tenure-track Assistant or Associate Professors to expand our laboratory effort in ovarian cancer. The successful candidate(s) will be expected to establish a vigorous independent research program that focuses on, but is not necessarily limited to, the role of genetic, hormonal and environmental factors in ovarian carcinogenesis. Additionally, the successful candidate(s) will be expected to participate in translational research studies in chemoprevention and early detection as part of the Ovarian Cancer Center for Excellence. Previous experience in the molecular biology of ovarian and/or breast cancer is highly desirable. Primary appointment will be in the Department of Obstetrics and Gynecology with secondary appointment in an appropriate basic science department. Competitive start up packages are available.

Interested applicants should send a letter describing their research interests and curriculum vitae to:

Holly H Gallion, MD
Professor, Obstetrics, Gynecology and
Reproductive Sciences
Magee-Womens Hospital
300 Halket Street
Pittsburgh, PA 15213
Hgallion@mail.magee.edu

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Please quote reference number: A950-01L
The annual salary for a Postdoctoral Fellow is currently NZ$45,973.00
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U.S. Environmental Protection Agency (EPA)
Office of Research and Development (ORD)

EPA is seeking a highly qualified scientific leader for the position of Director, Environmental Sciences Research Division. This is a Senior Executive Service (SES) position located in Office of Research and Development (ORD), National Center for Environmental Research (NCER) in Washington, DC.

The Environmental Sciences Research Division Director is responsible for planning, administering, and managing research grants, centers and fellowship programs. Advising the National Center for Environmental Research (NCER) Director on the direction, scientific quality, and effectiveness of the Center's investment in long-term investigator-initiated research and fellowships. Incumbent must provide leadership for interactions between the Division and extramural scientific community including universities and other research institutions eligible for EPA research grants. Provides leadership for interactions between the Division and the other ORD laboratories and centers to ensure effective coordination and integration of research activities. Incumbent will provide leadership and direction to review all budgets, operating costs and expenses in the incumbent's operational areas to meet the requirements of the Division. Represents the Division on various task force, panel and committee meetings as an expert consultant, recognized by peers, at all levels of government on Division's activities involving the various mandated environmental statutes for which NCER, ORD and the Agency have functional responsibilities.

To meet the requirements of this position, applicants must have a bachelor's degree (or higher) in environmental science, ecology or related health sciences. Preferred candidates would have experience in demonstrating leadership in scientific management of state-of-the-art programs in areas such as ecosystems protection research or research into environmental effects on human health.

Experience which demonstrates the ability to initiate action and follow through to completion the resolution of complex problems and issues.

Experience which demonstrates the ability to communicate complex environmental scientific and non-scientific programs to a variety of audiences.

Experience in dealing with high-level officials in Congress, Federal, State, or local government, public interest groups, private industry, academia and/or the general public.

Applicants must also have competence and substantive specialized (scientific, policy, administrative or managerial) experience in a type of work or a combination of functions directly related to the position. In addition, applicants must address the executive and technical qualifications described in the vacancy announcement for this position. Call or write to: **USEPA OARM/OHROS/SES Human Resources Staff (3650), 1200 Pennsylvania Avenue, N.W., Washington, DC 20460.** The SES vacancy hotline telephone number is (202) 260-6374. Request announcement number EPA-02-SES-ORD-6229. You may download a full text announcement via Internet at **www.usajobs.opm.gov** (OPM control # IX6413 for 401 series & # IX6531 for 601 series).

U.S. Citizenship Required

Applications must be postmarked by November 30, 2001

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TEMPLE UNIVERSITY
Chairperson
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College of Science and Technology

The Department of Chemistry invites applications for Chairperson of the Chemistry Department. As part of a continuing expansion in the sciences, the College of Science and Technology at Temple is recruiting for new faculty positions in the areas of Chemistry, Biochemistry, Computer Science, Information Science, Biotechnology, Environmental Science and Technology, Physical Science, and Mathematics. New faculty members have already joined the College with strong research programs and peer reviewed grant support, resulting in an increase in excess of $13.5 million in external funding. Faculty searches for additional positions are in progress. The College invites applications from Senior Faculty members who are interested in serving as chairperson and leading us in our plans for future growth. Applications or nominations are invited for the Chair of the Department of Chemistry from Senior Investigators with extensive research accomplishments and substantial research support. The current areas of strength of the Chemistry Department include physical, organic and materials chemistry and we also plan to increase out strength in biochemistry appreciably. The applicant's expertise can be in any of these areas. Full consideration will be given to all applications submitted by December 8, 2001. The College of Science and Technology offers B.A./B.S., M.A. and Ph.D. degrees in basic and multidisciplinary areas. Temple University, located in Philadelphia, Pennsylvania, is part of the Pennsylvania Commonwealth System of Higher Education and serves more than 30,000 students.

Applicants should submit a curriculum vitae, a summary of administrative experience, three representative publications, a statement of research interests and current research support, a statement of teaching philosophy and should arrange for four letters of reference to be sent to: **Professor David R. Dalton, Office of the Dean, College of Science and Technology, Barton Hall - Room A411, Temple University (009-00), Philadelphia, PA 19122, U.S.A.**

Information about Temple University is available at www.temple.edu.

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You will be responsible for a research project focused on the development of novel hydrophobic polymer surfaces located in Cologne, Germany. Successful candidates will have a Ph.D. and 3+ years experience in the field of polymer diffusion and surface segregation phenomena. Experience in thin polymer films, wetting and surface characterization is highly desirable.

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You will work at Cornell University, Department for Materials Science and Engineering with one of our cooperation partners (Prof. C. K. Ober). We are looking for skilled persons qualified in polymer synthesis and characterization. Experience in polymer surfaces is a plus.

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Endocrinologist - Master's degree or higher with a strong background in endocrinology course work and/or research experience.

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Opportunities

Children's Hospital Medical Center Cincinnati

Director, Child Neurology Research

The Division of Neurology at Children's Hospital Medical Center of Cincinnati, Ohio, is recruiting a child neurologist/neuroscientist (MD, MD/PhD or PhD) at the associate to full professor level to direct a research laboratory to expand and support our academic mission. This person will recruit up to four additional basic research faculty in neuroscience in areas of neurological disorders. We seek candidates with an active, innovative research program in any of the areas of child neurology who have the administrative skills to develop and direct such a program.

The division currently consists of 12 neurologists, one neuropsychologist and one neuropharmacologist. We have active clinical research programs in epilepsy, headache, movement disorders, neuro-muscular disorders, tuberous sclerosis, neurometabolic disorders, neuro-developmental disorders and clinical neurophysiology.

Cincinnati Children's is a major teaching hospital affiliated with the University of Cincinnati. Neuroscience is a main focus of expansion in the coming years. Excellent opportunities exist to collaborate with colleagues in the Divisions of Developmental Biology, Human Genetics and Psychiatry, as well as the Imaging Research Center.

The preferred candidate should be board eligible/certified in child or adult neurology with area of research focus relevant to child neurological disorders. However, PhD candidates with applicable experience will be considered. Send letter of interest (including description of research area and future plans), CV and names of three or more references to:

Ton J. DeGrauw, M.D., Ph.D., Head of Search Committee
Division of Neurology
Children's Hospital Medical Center
3333 Burnet Ave.
Cincinnati, OH 45229
(513) 636-4222
ton.degrauw@chmcc.org

Visit our website at www.cincinnatichildrens.org.
Children's Hospital Medical Center is an Affirmative Action/Equal Opportunity Institution. Women and minorities are encouraged to apply.

Brain Science Institute RIKEN

STAFF SCIENTIST POSITIONS

Laboratory for Neuronal Circuit Development
Brain Science Institute
RIKEN

Staff Scientist positions are available for electrophysiological analysis of visual cortical circuitry. Applicants should have experience with whole-cell recording techniques in brain slices. Our laboratory uses gene-targeted animals to dissect cellular mechanisms underlying experience-dependent plasticity and development of the mammalian visual system [*Science* **282:**1504 1998, *Nature* **404:**183 2000, *J. Neurosci.* **18:**2108 1998, in press 2001].

The RIKEN Brain Science Institute is a rapidly growing international research center located near Tokyo, Japan. Over 37 laboratories are engaged in molecular, cellular and systems level investigations of the CNS. Postdoctoral positions are well-funded and renewed annually for up to five years. Prospective candidates should have a Ph.D. degree and submit a curriculum vitae with two references to:

Dr. Takao K. Hensch
Lab for Neuronal Circuit Development
Brain Science Institute RIKEN
2-1 Hirosawa, Wako-shi
Saitama 351-0198
JAPAN
Fax: 81-48-467-2306 E-mail: hensch@postman.riken.go.jp

POSITIONS AVAILABLE IMMEDIATELY

The Department of Neurology at St. Luke's-Roosevelt Hospital Center, a university hospital of Columbia University College of Physicians & Surgeons, is launching a major research initiative into the biology of demyelinating diseases. The Department currently seeks applications for the following positions:

RESEARCH ASSOCIATE in Glial Biology

Seeking M.D. or Ph.D. with experience in glial cell biology. Applicant will have previous experience with growth factors and stem cell differentiation. The laboratory is currently developing growth factors that will induce cell regeneration and remyelination. Candidate must have two years of postdoctoral experience. Minimum $55,000 plus benefits.

RESEARCH ASSOCIATE in Molecular Biology/Immunology

Seeking postdoctoral scientist with experience in immunology of demyelinating diseases or related fields. Applicant will be expected to investigate the antibody response in multiple sclerosis. Candidate should have two years postdoctoral experience in molecular immunology. Minimum $55,000 plus benefits.

RESEARCH ASSOCIATE in Pathology

Seeking M.D. or Ph.D. with experience in immunopathology or neuropathology. Applicant should be familiar with all routine pathological techniques. Previous experience with animal work or in situ hybridization preferred. Minimum $55,000 plus benefits.

POSTDOCTORAL POSITION

Two postdoctoral positions are available in immunology and molecular biology. Applicants must have extensive experience in molecular and cell biology. Candidate will be encouraged to develop independent research project related to demyelinating disease. Salary $40,000 plus benefits.

All positions are funded for a two year period.

Please send CV and three letters of reference to:

Saud A. Sadiq, MD
Chairman
Department of Neurology
St. Luke's-Roosevelt Hospital Center
425 West 59th Street, Suite 7C
New York, NY 10019

MIT

Tenure - Track Junior Faculty Position - Chemical Engineering

The Department of Chemical Engineering at the Massachusetts Institute of Technology invites applications and/or nominations for a tenure-track junior faculty position in chemical engineering.

The ideal candidate will possess a doctorate (Ph.D., Sc.D., or equivalent) in chemical engineering or a closely related field. The candidate should have demonstrated excellence in research and a strong commitment to teaching, both at the graduate and undergraduate levels.

To apply, send a current CV, the names and contact information of three or more professional/academic references, and a brief description of research and teaching interests. The priority deadline for submission is January 1, 2002. You may direct your applications and any questions to: **Professor Robert C. Armstrong, Department Head, Attn.: Faculty Search, MIT Chemical Engineering, 66-350, 77 Massachusetts Avenue, Cambridge, MA 02139-4307.**

Minority and women candidates are strongly encouraged to apply.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
An Equal Opportunity/Affirmative Action Employer
Non-Smoking Environment
web.mit.edu/personnel/www

Faculty Recruitment
Medical Genetics Branch
National Human Genome Research Institute

The Medical Genetics Branch (MGB) of the National Human Genome Research Institute (NHGRI) is seeking to recruit an outstanding scientist to pursue an independent, multidisciplinary basic research program in developmental biology with an emphasis on animal models of human disease.

The successful candidate will be able to take advantage of interactions with a highly collegial group of scientists within NHGRI, the NIH Clinical Center, and the NIH campus as a whole.

This fully-funded, tenure-track or tenured position will include a generous start-up allowance, an ongoing commitment of clinical and laboratory resources as needed, and positions for support of personnel and trainees. In addition to the resources of the NIH Clinical Center, all faculty have ready access to NHGRI core facilities that provide a high level of support for transgenic mouse and ES cell technology, cytogenetics, fluorescent and confocal microscopy, flow cytometry, sequencing, DNA microarray technology, and computational and genomics resources. Candidates must have a Ph.D., an M.D./Ph.D. or M.D. as well as comprehensive, advanced training and accomplishment in one of the targeted areas.

The NIH is an equal opportunity employer and encourages applications from women and minorities. Interested applicants should send a curriculum vitae, a three-page description of proposed research, and three letters of recommendation to:

Ms. Victoria Willits
MGB Search Committee
Building 10, Room 10C103
10 Center Drive
Bethesda, MD 20892-1852

Closing Date: December 31, 2001

For more information on MGB and NHGRI's Intramural Program, please see http://www.nhgri.nih.gov/Intramural_research

The James Irvine Foundation Postdoctoral Minority Fellowship at the California Institute of Technology

The California Institute of Technology invites applications and nominations for The James Irvine Foundation Postdoctoral Minority Fellowship, a prize fellowship open to underrepresented minority scholars in science, mathematics and engineering.

The fellowship is to begin Fall 2002. The appointment is for a three-year duration, carries an annual stipend of $46,700, and offers additional research and travel funds.

This Fellowship program has been established to offer scientists from historically underrepresented minority populations in the United States the best possible opportunity to develop their talents. Historically underrepresented minorities are members of the following groups: African American/Black, Hispanic/Latino, Native American/American Indian, and Asian Pacific Islander.

Candidates will typically have earned a Ph.D. within the past few years, and will wish to conduct research in the areas in which Caltech's faculty are currently active. (Summaries of faculty research interests are listed on Division web sites at www.caltech.edu.)

Materials in support of an application or nomination should be sent to:

The James Irvine Postdoctoral Minority Fellowship
California Institute of Technology
Mail Code 08-31
Pasadena, CA 91125

Materials should arrive by January 15, 2002, and need to include curriculum vitae (with citizenship status indicated), bibliography of publications, preprints of manuscripts not yet published, and a description of the anticipated research program. Candidates are strongly encouraged to contact relevant Caltech faculty in advance to discuss research interests and proposed research program. The candidate or nominator is requested to ensure that at least two letters of recommendation are sent directly to Caltech.

Fellowship candidates will automatically be considered for all other available postdoctoral positions in their fields of interest. The California Institute of Technology is an independent, privately supported university.

Caltech is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans, and disabled persons are encouraged to apply.

FACULTY POSITIONS DEPARTMENT OF NEUROSCIENCE

Faculty positions are available in the Department of Neuroscience at the Albert Einstein College of Medicine for individuals applying techniques of molecular genetics in various model organisms to study different areas of normal neural development and/or diseases of the nervous system. Possible areas of concentration include neuronal and glial specification, progenitor cell biology, pattern formation, axonal guidance, cell-cycle regulation and a variety of disease models. This is part of an ambitious recruitment effort aimed at significantly increasing the complement of interdisciplinary neuroscience investigators at the Rose F. Kennedy Center for Research in Mental Retardation and Human Development. It is expected that the independent research programs established by the successful applicants will represent essential links in the long-standing tradition of academic excellence in neuroscience research at Einstein.

Albert Einstein College of Medicine (AECOM) is a major biomedical institution that maintains a strong focus on basic science research and interdisciplinary collaborations. Of particular relevance to this search are the extensive opportunities for interactions with faculty members in the Departments of Molecular Genetics, Developmental and Molecular Biology, Cell Biology, Anatomy Structural Biology, Physiology and Biophysics, Pathology, Neurology and Psychiatry. Notably, the Albert Einstein College of Medicine was among the first medical schools in the country to establish independent Departments of Neuroscience and of Genetics.

This position offers the opportunity to mentor graduate students with a strong interest in basic research. In addition to the approximately 350 PhD students that are actively pursuing graduate studies, Einstein maintains one of the largest and most highly-regarded MD/PhD programs. Further, state-of-the-art genomics, proteomics and neuroimaging facilities are available to all members of the Einstein community.

We are located in a pleasant residential section of the Bronx with easy access to Manhattan, Westchester County and other communities of the New York Metropolitan area. Applicants should submit their curriculum vita, a short description of future research plans, and at least three letters of reference to the Neuroscience Search Committee, no later than **November 15, 2001**: **Ms. Maura Gabriele, Rose F. Kennedy Center for Mental Retardation, Room #906, Albert Einstein College of Medicine, 1410 Pelham Parkway, Bronx, NY 10461**. EOE

ALBERT EINSTEIN COLLEGE OF MEDICINE

Advancing science, building careers

Ernest Gallo Clinic and Research Center

Postdoctoral Positions ~ Alcohol Addiction

Postdoctoral positions are available at UCSF to study the behavioral and molecular pharmacology of ethanol self administration in rodents, with an emphasis on the role of mesolimbic G-protein coupled receptors and PKA/PKC signaling pathways. Ideal candidates will have a background in animal behavior and molecular pharmacology. These studies are part of a multidisciplinary collaborative effort within the Ernest Gallo Clinic and Research Center, a biomedical research institution affiliated with The University of California, San Francisco.

Assistant or Associate Researcher

The Ernest Gallo Clinic and Research Center in the Department of Neurology at the University of California, San Francisco, seeks highly qualified applicants for a position as an Assistant/Associate Researcher to pursue research in the study of molecular and cellular mechanisms leading to alcohol addiction, focusing on the roles of signal transduction, kinases, and kinase-anchoring proteins. The research is aimed toward the development of new drug targets to treat alcoholism. Animal behavior studies are also planned. Applicants should have a Ph.D. and/or M.D. and should have postdoctoral research experience and a publication record in relevant areas of study. Additionally, applicants should have a strong background in such areas as biochemistry, cellular and molecular biology, or pharmacology and an interest in working in a multidisciplinary effort toward drug discovery.

Salaries are competitive. Please send curriculum vitae, summary of research experience, and names and phone numbers of at least three references to:

Ivan Diamond, M.D., Ph.D.
c/o Dianna Henderson
Ernest Gallo Clinic & Research Center
University of California, San Francisco
5858 Horton Street, Suite 200
Emeryville, CA 94608
Email: hr@egcrc.net
http://www.egcrc.org

The University of California, San Francisco, is an affirmative action/equal opportunity employer. The University undertakes affirmative action to assure equal opportunity employment for underutilized minorities and women, for persons with disabilities, and for Vietnam-era veterans and special disabled veterans.

The University of Illinois at Urbana-Champaign Multiple Faculty Positions in Molecular and Cellular Biology

As part of a campus-wide initiative in Postgenomic Biology, the School of Molecular and Cellular Biology at the University of Illinois at Urbana-Champaign invites applications for faculty positions in:

- **Proteomics**

Areas of interest include but are not limited to: **Bioinformatics and Computational Biology, Structural Biology, Functional Genomics, and Technology Development.**

- **Functional Analysis of Macromolecular Assemblies**

Areas of interest include but are not limited to: **Molecular Machines, Membrane Associated Protein Assemblies, Imaging Technologies, Macromolecular Assemblies in Transcriptional Regulation.**

These positions are full-time and tenure track in the departments of Biochemistry, Cell and Structural Biology, Microbiology, and Molecular and Integrative Physiology in the College of Liberal Arts and Sciences and in the College of Medicine. Although we anticipate most of these appointments will be made at the Assistant Professor level, applications for positions at the Associate and Full Professor levels will also be considered and highly qualified scientists at these levels are encouraged to apply. The starting date for these positions is August 2002. Appointment at the Assistant Professor level requires a doctoral degree, postdoctoral experience, and evidence of outstanding research potential. Appointees at this level will be expected to develop a vigorous, independently funded research program. Appointment at higher levels requires evidence of outstanding research accomplishments including extramural funding and national recognition. Applicants at all levels will be expected to contribute effectively to undergraduate/graduate teaching.

The University of Illinois at Urbana-Champaign has added significant faculty strength in the biological sciences over the last three years and we anticipate additional hires in these and related areas each year for the next several years. Successful candidates will be provided with excellent laboratory facilities, substantial start-up funds, and a salary commensurate with experience. The University of Illinois at Urbana-Champaign offers a highly interactive, interdisciplinary research environment and state-of-the-art research support facilities. Urbana-Champaign offers the residential advantages of a medium-sized university city, excellent cultural opportunities and easy access to Chicago and St. Louis. Information concerning the School of Molecular and Cellular Biology at the University of Illinois can be found at http://www.life.uiuc.edu/mcb/.

Applicants should submit their application to: **School of Molecular and Cellular Biology, University of Illinois at Urbana-Champaign, 393 Morrill Hall, 505 S. Goodwin Ave., Urbana, IL 61801**. An application must include curriculum vitae with a complete list of publications, a concise summary of research interests and future plans. Please specify research area, identified above, in top right corner of cover letter. Also, please arrange to have four letters of recommendation sent to the same address.

Electronic submissions as pdf files are encouraged and should be sent to mcbsearch@life.uiuc.edu. To ensure full consideration, applications should be received by Dec. 3, 2001. Interviews may be conducted before the closing date; however, no hire will be made until after the closing date.

The University of Illinois at Urbana-Champaign is an Affirmative Action, Equal Opportunity Employer.

CFN DFG

Center for Functional Nanostructures at the University of Karlsruhe (TH)

The Faculties of Chemistry and Physics of the University of Karlsruhe (TH) invite applications for several vacancies in connection with a newly funded research center of the Deutsche Forschungsgemeinschaft (DFG).

The "Center for Functional Nanostructures" **(CFN)** was initiated by the DFG at the University of Karlsruhe (TH) on July 1, 2001. The **CFN** comprises 25 research groups from the University of Karlsruhe (TH) and 10 groups from the Forschungszentrum Karlsruhe GmbH. Approximately two hundred scientists are involved. The center's research activities are subdivided into four main areas: (A) Nano-Photonics, (B) Nano-Electronics, (C) Molecular Nanostructures and (D) Nanostructured Materials. Associated with the center, multiple collaborations between the Faculties of Physics, Chemistry as well as Electrical Engineering & Information Technology are envisaged or already ongoing.

The Faculty of Physics at the University of Karlsruhe (TH) has an opening for a

Professor (C3) of Theoretical Physics

(early replacement of Prof. Dr. R. von Baltz)

to commence as soon as possible.

Responsibilities include research and teaching in the field of condensed matter theory/theoretical solid-state physics. Candidates should have proven expertise in the quantum theory of electron transport in metallic and semiconducting nanostructures subject to interaction and disorder effects. Active participation in research area B (Nano-Electronics) of the **CFN** is expected; collaborations with other research areas of the CFN are desirable.

Applications with the usual information, including a list of courses taught and five selected reprints should be sent to: **Dekan, Fakultät für Physik, Universität Karlsruhe (TH), D-76128 Karlsruhe, Germany, by December 31, 2001**.

The Faculty of Chemistry at the University of Karlsruhe (TH) has an opening for a

Professor (C4) of Theoretical Chemistry

(early replacement of Prof. Dr. R. Ahlrichs)

to commence as soon as possible.

Responsibilities include research and teaching in the field of theoretical chemistry. Candidates should have proven expertise in theoretical chemistry and should have research interests in a modern area of quantum chemistry, e.g. ab-initio description of large molecules. Research goals should complement ongoing and planned activities in the **CFN**.

Applications with the usual information, including a list of courses taught and five selected reprints should be sent to: **Dekan, Fakultät für Chemie, Universität Karlsruhe (TH), D-76128 Karlsruhe, Germany, by December 31, 2001**.

The Faculty of Chemistry at the University of Karlsruhe (TH) also has an opening for a

Professor (C4) of Inorganic Chemistry

(early replacement of Prof. Dr. D. Fenske)

to commence January 1, 2003.

Responsibilities include teaching and research in inorganic chemistry. Candidates should have proven expertise in a modern area of preparative inorganic chemistry. Research goals should complement ongoing and planned activities in the **CFN**.

Applications with the usual information, including a list of courses taught and five selected reprints should be sent to: **Dekan, Fakultät für Chemie, Universität Karlsruhe (TH), D-76128 Karlsruhe, Germany, by January 15, 2002.**

Candidates for all positions should have either completed a habilitation or have an equivalent scientific background.

The University is attempting to increase the percentage of female faculty members and therefore explicitly encourages the application of qualified women. Handicapped applicants will be considered preferentially if equally qualified.

In the case of first-time appointments to a professorship, contracts will be (initially) limited; exceptions are possible.

TaiGen Biotechnology
Taipei, Taiwan
Positions Immediately Available

TaiGen is a Taiwan-based biotech/ pharmaceutical company. The company is built on the proprietary technology CART/ GPCR (constitutively active receptor technology for G protein-coupled receptors) from Arena Pharmaceuticals at San Diego and the pharmaceutical R&D experience and expertise led and developed by Dr. Ming-Chu Hsu in Taiwan. Dr. Hsu was with Hoffmann-LaRoche from 1987-1997 and held positions of Research Directors for oncology and virology. She was the founding director (1998-2001) of the Division of Biotechnology and Pharmaceutical Research, National Health Research Institutes in Taiwan. The company's vision is to build a world-class pharmaceutical company with global vision and opportunity. The first-round fund raising drew overwhelming responses from local, US and Japanese investors. The company now has 48 million USD committed capital and began its operation in May, 2001.

GPCRs have been the most drug-rich molecular targets. There were approximately 130 known GPCRs before the completion of the human genomic sequence. Of the top 50 leading pharmaceuticals, based on 1999 revenue, 19 of these drugs wholly or in part act on this class of drug targets with an annual sale of 27 billion US dollars.

With the completion of human genomic sequence in 2000, the GPCR family of gene has been greatly expanded to approximately 2000 of which 600-800 are considered potential drug targets. The bottleneck of traditional drug-discovery techniques is the identification of the ligand that naturally binds to and activates the drug target. Historically, it takes 4-5 years, if it is successful. The patented CART technology enables scientists to embark on drug discovery without the need of identifying the natural ligand, a technique particularly useful for the orphan receptors. TaiGen has rapid access to these new drug targets and is developing a business model of out-licensing as well as in-house development of drug candidates

GPCRs have been implicated and employed in therapeutic approaches for neurological disorders, allergy, obesity, cardiovascular disease, cancer, inflammation, diabetics, etc. TaiGen will initially focus in two therapeutic areas, cancer and inflammation. We are currently recruiting scientists with research experiences and/or interest in the following areas:

Cancer and Immunology: Molecular biology of GPCR, cancer biology and metastasis, immunology and inflammation/ chemokines, signal transduction, gene expressing profiling, in situ techniques, and biochemical pharmacology.

Chemistry: Traditional and combinatorial synthesis, computational chemistry, analytics, scale-up synthesis and quality control.

Animal models: Cancer and inflammation animal models.

Pharmacokinetics and drug metabolism: in vivo and in vitro investigation, analytics and modeling.

We are looking for bright dynamic individuals who are interested in drug discovery and welcome the challenge. Positions for **director, group leader, senior scientist, postdoctoral fellow and research assistant are available**. Applications should include curriculum vitae, and three letters of recommendation. Please forward your application to:

Dr. Ming-Chu Hsu
President and CEO
TaiGen Biotechnology Co., Ltd.
9F, No.25, Tung-Hwa S. Road, Sec.1
Taipei, Taiwan, R.O.C.
Email:mchsu@taigenbiotech.com.tw
Tel:886-2-2570-7951 ext.152 Fax:886-2-2570-3107

TENURE-TRACK POSITION
ASSISTANT OR ASSOCIATE PROFESSOR
Department of Biochemistry and Molecular Biology
Southern Illinois University-Carbondale
School of Medicine-Carbondale, IL 62901-4413

The Department of Biochemistry and Molecular Biology at Southern Illinois University-Carbondale School of Medicine invites applications for a tenure-track position at the Assistant or Associate Professor level. The candidate's research program should be in the area of eukaryotic gene regulation, programmed cell death, or signal transduction with an emphasis on human disease. Special consideration will be given to those who have a genomic and/or proteomic approach to these areas. Applicants must have a M.D. or Ph.D. in a life sciences or related area. We will give preference to those with two or more years of postdoctoral experience. The candidate will have the opportunity to participate in the Center for Alzheimer Disease and Related Disorders and in the newly established SIU Cancer Institute. The ability to develop an active, externally funded research program and to contribute to teaching medical and graduate students is essential. The position is a 12-month appointment with a competitive salary, excellent facilities and substantial start-up funds.

All applicants must submit curriculum vitae, one page research plan and three letters of reference to:

Dr. Joseph C. Schmit, Search Committee Chair
Biochemistry and Molecular Biology
1245 Lincoln Drive, Neckers Room 229C
Southern Illinois University School of Medicine
Carbondale, IL 62901-4413.

Application review will begin December 15, 2001 and continue until the position is filled. The anticipated start date is July 1, 2002.

Southern Illinois University-Carbondale is an Equal Opportunity/Affirmative Action Employer.

International Max-Planck Research School on Astrophysics at the University of Munich IMPRS

Doctoral Research in Astrophysics

The IMPRS on Astrophysics is a Graduate School which offers a PhD program in Astrophysics and Cosmology. The School is run by a consortium of the following internationally renowned institutes and offers a uniquely stimulating research environment for graduate students.

- The Max-Planck Institute for extraterrestrial Physics (MPE)
- The Observatory of the University of Munich (LMU/USM)
- The Max-Planck Institute for Astrophysics (MPA)
- The European Southern Observatory (ESO)
- The Astroparticle Physics groups at the Technical University of Munich and at the Werner-Heisenberg Institute.

Open to all nationalities, the IMPRS on Astrophysics seeks highly-qualified and motivated young scientists who aim for a graduate degree and want to make use of the outstanding research facilities at the participating institutes. All successful applicants are supported by a PhD fellowship if required.

For more information please visit:
http://www.imprs-astro.mpg.de

Applications can be submitted to: IMPRS on Astrophysics
Application Office
PO BOX 1312
85740 Garching, Germany

UNIVERSITY OF CAMBRIDGE

Department of Zoology

University Lectureship in Cell and Developmental Biology

Applications are invited for a University Lectureship in Cell and Developmental Biology in the Department of Zoology (http://www.zoo.cam.ac.uk/), to take up appointment as soon as possible.

The Department has strong groups in Developmental Biology, Cell Biology, Neurobiology, Evolutionary Biology and Ecology. We now seek to extend and strengthen our vigorous programme of research and teaching in Cell and Developmental Biology. The prime criteria for appointment will be academic excellence, a demonstrated ability to carry out research of international stature and a commitment to excellence in teaching.

The pensionable scale of stipends for a University Lecturer is £22,299 per annum, rising by eleven annual increments to £34,390 per annum. The appointment will be for five years in the first instance, with the possibility of reappointment to the retiring age.

Further information about the post and an application form may be obtained at http://www.bio.cam.ac.uk/sbs/appointments/ or from the Head of Department, Professor Malcolm Burrows, Department of Zoology, Downing Street, Cambridge CB2 3EJ, e-mail mb135@cus.cam.ac.uk or telephone 01223 336601, fax 01223 336687, to whom applications (7 copies) including a *curriculum vitae*, list of publications and names of not more than three referees, should be sent so as to reach him not later than 22 November 2001.

The University is committed to equality of opportunity

The University of California, Riverside Department of Entomology is recruiting for the following two positions:

Asst. CE Specialist & Asst. Entomologist: Veterinary Entomology. Position available July 1, 2002, 11-month, 75% cooperative extension, 25% research. Located at the University of California, Riverside, CA. Appointment level and salary commensurate with experience. Ph.D. in Veterinary or Medical Entomology or related discipline with graduate training or postdoctoral experience in Veterinary Entomology preferred. The appointee will conduct basic and applied research focused on reducing impact of pest and parasitic arthropods associated with animal production operations and on companion animals through novel and traditional IPM strategies and extend research information to appropriate clientele. Applicants should send CV, transcripts, statement of research interests, reprints and manuscripts in press, and names and addresses of five references by January 7, 2002, to: **Dr. William E. Walton, Search Committee Chair, Department of Entomology, University of California, Riverside, California, 92521**; e-mail: **william.walton@ucr.edu**, phone **(909) 787-3919**, FAX **(909) 787-3086**.

Asst. Prof., Assoc. Prof. or Prof. in the area of Molecular Biology/Cell Biology. Position available July 1, 2002, 11-month, 25% teaching, 75% research. Located at the University of California, Riverside, CA. Appointment level and salary commensurate with experience. Ph.D. with graduate training and postdoctoral experience in using cellular and molecular techniques to investigate chemoreception and/or behavior in insects is required. The appointee will conduct research into the cellular and molecular basis of chemoreception and/or behavior in insects, will supervise graduate students, and will also participate in the Department's teaching program. Applicants should send CV, transcripts, statement of research interests, reprints and manuscripts in press, and names and addresses of five references by January 7, 2002, to: **Dr. Peter W. Atkinson, Search Committee Chair, Department of Entomology, University of California, Riverside, California, 92521**; e-mail: **peter.atkinson@ucr.edu**, phone **(909) 787-4782**, FAX **(909) 787-3086.**

Information about the Entomology Department and expanded position descriptions can be found at website: http://www.entomology.ucr.edu

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

Opportunities in suburban Philadelphia, PA and Research Triangle Park, NC.

Consultant, Informatics Support

Driving the success of GlaxoSmithKline - the world's leading pharmaceutical organization - is a continual search for innovation. Apart from a research and development capability that sets the benchmark for our industry, we're committed to recruiting and retaining the best and brightest by providing unequalled individual and career development opportunities within our organization.

As a key team member, you will provide Drug Discovery Scientists with critical tools and insight for decision making by partnering with Statisticians, Software Engineers, Cheminformaticians, and Bioinformaticians in the development and maintenance of novel expert and non-expert methods and tools for the analysis of scientific data. You will use, teach and champion the use of data visualization tools and proactively anticipate and meet Drug Discovery's informatic and IT needs. Your MS or Ph.D. in a Chemistry-related discipline or Computer Science is essential. Working knowledge of informatic systems and data mining/analysis techniques, SAR/QSAR medicinal chemistry analysis and design tools, and statistics are highly desirable, as is your expertise with computer programming (Perl, C or C++) and computational chemistry tools.

GlaxoSmithKline is dedicated to an innovative workplace and supports you with career long opportunities and learning. We offer a competitive benefits and compensation package designed to attract and retain the very best. For confidential consideration and efficient processing, visit our Web site: www.gsk.com Indicating Job Code: 01-1837 is essential to search. Principals only, no agencies please.

Developing talent through equality of opportunity. M/F/D/V.

Together we can make life better.

gsk GlaxoSmithKline

ENDOWED PROFESSORSHIP IN MOLECULAR BIOLOGY
Florida State University

The Department of Biological Science is pleased to announce the establishment of the J. Herbert Taylor Endowed Professorship in Molecular Biology. We invite nominations of and applications from proven scholars at the **FULL PROFESSOR** or equivalent level who explore the complexities of gene action, nuclear-cytoplasmic interaction, or higher-order chromosome and/or nuclear structure as a way of understanding fundamental problems in cellular reproduction, differentiation, or function. This search is an initial step in a planned expansion in the broadly defined area of molecular biology within the Department designed to augment our existing strengths in cell biology, evolution, neuroscience, and ecology. The successful candidate will be expected to play a significant role in charting our growth in molecular biology and its related fields. Recent major state support for acquisition of instrumentation has established state-of-the-art core facilities in the Department and related units for nucleic acid and peptide sequencing, proteomics, microarray analyses, monoclonal antibody production, analytical biochemistry, and sophisticated imaging by light and electron microscopy. Members of the Department are affiliated with interdisciplinary programs in structural biology, molecular biophysics, neuroscience, and computational science and information technology as well as with the National High-Field Magnet Laboratory and the newly established College of Medicine. The position carries an attractive package of salary and benefits, research space, initial research support, and recurring funds generated by the Endowment to enhance the Chairholder's research program. Our **website: http://www.bio.fsu.edu** provides additional information about the Department and links to related programs.

Nominations and letters of interest in the position should be directed to: **J. H. Taylor Endowed Professor Search Committee, Department of Biological Science, Florida State University, Tallahassee, FL 32306**. Review of these materials will begin December 1, 2001, and continue on a rolling basis. *Florida State University is an Equal Opportunity/Affirmative Action Employer committed to diversity of hiring and a Public Records Agency.*

The Department of Biology at Vassar College invites applications for a tenure-track faculty position at the level of **ASSISTANT PROFESSOR** in an area of biology in which bioinformatics plays an important role. Research interests may include but are not limited to the following areas: microbiology, cell biology, molecular biology, physiological systems, protein biochemistry/proteomics, evolution, and functional or comparative genomics. We seek an outstanding Teacher and Investigator who incorporates informatic approaches to study fundamental aspects of biology. The candidate should expect to teach at all levels of the curriculum and to work with the Department towards integrating bioinformatics into the curriculum. Development of a research program with student participation is expected and start-up funding is provided. A Ph.D. in biological science with demonstrated proficiency in bioinformatics is required and postdoctoral experience is preferred. This position is funded in part by a grant from the Howard Hughes Medical Institute to Vassar College. Applicants should submit curriculum vitae; a list of publications and representative reprints; a statement of research interests and goals; a statement on teaching philosophy and interests; and four letters of reference by December 1, 2001, to: **David Jemiolo, Chair, Department of Biology, Box 731, Vassar College, Poughkeepsie, NY 12604. E-mail: jemiolo@vassar.edu; website: http://depts.vassar.edu/~biology/**. *Vassar College is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

FACULTY POSITIONS
Department of Speech and Hearing Sciences and The Center for Mind, Brain, and Learning
University of Washington

The Department of Speech and Hearing Sciences (**website: http://depts.washington.edu/sphsc/**) in conjunction with the Center for Mind, Brain, and Learning (**website: http://depts.washington.edu/cmbl/**) expects to fill two tenure-track positions in the area of brain and language. Appointment is anticipated at the **ASSISTANT** or **ASSOCIATE PROFESSOR** rank, but candidates with exceptional qualifications may be considered for appointment at the rank of Professor. We are particularly interested in individuals who combine behavioral and neuroscience approaches to language perception or production. One position will focus on adult populations, and one position will focus on infants and/or children. Applicants are expected to have demonstrated excellence in research publication and will be expected to provide high-quality teaching at both the undergraduate and graduate levels. The Center for Mind, Brain, and Learning encourages interdisciplinary and collaborative research on lifelong learning with a special emphasis on the zero-to-five age range. To apply, send a detailed statement of research and teaching interests, curriculum vitae, not more than four reprints or preprints, evidence of teaching effectiveness, and at least three letters of recommendation to:

Brain and Language Search Committee
Department of Speech and Hearing Sciences
University of Washington
1417 N.E. 42nd Street
Seattle, WA 98105-6246
E-mail: pkkuhl@u.washington.edu

Applications received by January 1, 2002, will receive full consideration. Ph.D. required by date of appointment. *The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. The University is an Equal Opportunity/Affirmative Action Employer.*

TENURE-TRACK FACULTY POSITION
Experimental Biological Physics/
Condensed Matter Physics
Carnegie Mellon University

The Department of Physics at Carnegie Mellon University invites applications for a tenure-track position in experimental biological physics and/or condensed matter physics. We seek an individual of exceptional ability and promise to establish a vigorous research program. Excellent candidates in any area of specialization will be considered. Preference will be given to candidates likely to interact synergistically with current projects and facilities in Physics (see **website: http://info.phys.cmu.edu**) or other departments at Carnegie Mellon. A senior-level appointment may be considered under special circumstances. Applicants should send their curriculum vitae; publication list; a statement of research and teaching interests; and have at least three letters of reference sent to: **Professor Stephen Garoff, Physics Department, Carnegie Mellon University, Pittsburgh, PA 15213** before November 15, 2001. *Carnegie Mellon University is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITION
Bioinformatics/Proteomics

Boise State University is seeking applicants for a tenure-track position in biochemistry or molecular biology at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level. A Ph.D. and demonstrated ability to apply computational methods to biological problems are required. Postdoctoral experience with a focus on proteomics is preferred. The successful candidate will be expected to develop a vigorous, externally funded research program in the Department of Biology and/or Chemistry. Send curriculum vitae and statement of research interests to: **Dr. Martin Schimpf, Boise State University, Boise, ID 83725-1500**. *Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

DIRECTOR
Center for Bioinformatics and Computational Biology
University of Maryland, College Park

The University of Maryland, College Park, invites applications for the position of Director of the newly established Center for Bioinformatics and Computational Biology.

The campus has committed substantial resources to the Center including funds for the recruitment of nine new faculty. It is anticipated that the primary specialization areas of the faculty in the Center will collectively span the fields of computer science, mathematics and statistics, molecular biology, molecular evolution and phylogeny, and biochemistry.

The Director will be an outstanding Scientist who will play a leadership role in developing and implementing a vision for the Center leading to nationally visible research programs in selected areas of computational genomics, proteomics, and molecular evolution. Candidates for this position must have an established international reputation in interdisciplinary research with strong leadership skills. The appointment will be made at the **FULL PROFESSOR** level and will be joint with one or more of the related academic departments on campus. To apply, send a letter of application, curriculum vitae, and URL for additional information to **e-mail: cecilia@umiacs.umd.edu** and have at least five letters of recommendation sent to:

Cecilia Kullman
Center for Bioinformatics and
Computational Biology
Institute for Advanced Computer Studies
2131 A. V. Williams Building
University of Maryland
College Park, MD 20742
Website:
http://www.umiacs.umd.edu/centers/bio.htm

Applications will be accepted until the position is filled. *The University of Maryland is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

FACULTY POSITION IN BIOMATERIALS
New York State College of Ceramics
Alfred University

The School of Ceramic Engineering and Materials Science announces a tenure-track **ASSISTANT PROFESSOR** position in the biomedical materials engineering science program. Applicants should have enthusiasm for teaching undergraduate and graduate courses and demonstrated capabilities for developing a strong presence in funded research in biomaterials within an interdisciplinary program specializing in the application of materials in medicine. The School has a vigorous sponsored research program that includes the NYS Center for Advanced Ceramic Technology, the Center for Glass Research, and participation in the multisite NSF Industry/University Center for Biosurfaces. Applicants with a background applicable to teaching and research in areas related to physicochemical phenomena occurring at the interface between materials and living systems are especially encouraged to apply. The candidate should have a degree in biomedical engineering, materials science, or a closely related field. The position includes a competitive start-up package and newly renovated laboratory space. Qualified applicants should submit a complete résumé; statement of teaching and research interests; and three references by November 15, 2001, to: **Ronald S. Gordon, Dean, School of Ceramic Engineering and Materials Science, NYS College of Ceramics, 2 Pine Street, Alfred, NY 14802**.

Alfred is an Affirmative Action/Equal Opportunity Employer. The College complies with all applicable nondiscrimination laws including the Americans With Disabilities Act. We encourage minorities, women, and persons with disabilities to apply.

Faculty positions in Proteomics/Structural Genomics

Delaware Biotechnology Institute

Faculty positions in Proteomics/Structural Genomics: The University of Delaware seeks nominations and applications for three tenure-track appointments, rank open, at the Delaware Biotechnology Institute (DBI) and within one or more academic departments at the University. An exceptionally qualified candidate could be considered for the Edward G. Jefferson endowed chair, and is expected to provide energetic leadership and direction in furthering the DBI's position at the forefront of research and education in biotechnology.

Candidates for these positions should hold an earned Ph.D. in molecular/cell biology, chemistry, biochemistry, or another closely related field, and should be involved in one of two general, broadly defined areas of research: (1) comparative protein biology (proteomics) or (2) structural genomics. Candidates for a junior-level position will be considered on the basis of research potential as evidenced by a brief research plan, the CV, and letters of support. Candidates for a senior-level appointment should possess a distinguished record of scientific accomplishments and be recognized as leaders in the field in which they work. For an appointment at the senior level, demonstrated experience in leading interdisciplinary research teams, in developing strong, externally funded research programs, and in stimulating the work of others is highly desirable.

The Delaware Biotechnology Institute is a partnership involving state government, the Delaware institutions of higher education, and area industry. The mission of the Institute is to engage in leading-edge scientific discovery in the life sciences, provide biotechnology-based education, and promote economic development and the creation of high-quality jobs. A new 70,000 sq.ft. state-of-the-art research facility houses interdisciplinary research teams in areas encompassing molecular biology, genetics/genomics, proteomics/structural biology, computational biology/computer science, modeling and simulation. DBI research efforts are supported by an existing and expanding infrastructure at DBI and on the nearby UD campus. Major instrumentation available to DBI researchers includes high-field NMR, state-of-the-art mass spectroscopy, bioimaging, protein sequencing/crystallography, FACS, and DNA capabilities. In addition, there is access to well-equipped shops, a plant growth center, substantial computational facilities and an experienced support staff. For more information on the Delaware Biotechnology Institute, visit www.dbi.udel.edu.

DBI research faculty holds either tenure-track or tenured appointments in comparable disciplines in the University of Delaware. The University of Delaware, founded in 1743, is one of the oldest land-grant institutions in the nation, one of the 19 sea-grant institutions, and one of only 13 space-grant institutions. Located in the heart of a region populated by leading chemical and life science-focused companies, it is a major state-assisted, private university, with nationally recognized research and educational programs supported by state-of-the-art laboratories, and an expansive library. Several departments, including Animal and Food Sciences, Biological Sciences, Chemical Engineering, Chemistry and Biochemistry, Computer and Information Sciences, Marine Sciences, Materials Science Engineering, and Plant and Soil Sciences, have research underway on a wide array of projects touching on proteomics and structural genomics. See the University Web site www.udel.edu for more information.

Candidate reviews will begin at once and will continue until the positions are filled. Interested candidates should forward a letter of interest, full curriculum vitae, a brief research plan, if appropriate, and the names and contact information for four references to:

Steven D. Brown, Chair, DBI Search
c/o Department of Chemistry and Biochemistry
University of Delaware
Brown Laboratory
Newark, DE 19716
sdb@udel.edu

The curriculum vitae and letters of reference shall be shared with departmental faculty.

The University of Delaware is an Equal Opportunity Employer that encourages applications from minority group members and women. For further information, please consult our Web site www.udel.edu.

National Institute of Arthritis and Musculoskeletal and Skin Diseases

The Intramural Research Program

The Intramural Research Program of the National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health invites applications for a tenure/tenure-track position(s) as an investigator to direct a research program related to the basic biological mechanisms of the rheumatic diseases. Candidates should have a Ph.D. or M.D. degree with at least three years of post-doctoral experience and an exceptional publication record. We are seeking an independent and interactive individual who will apply modern molecular, cellular, and genetic techniques to the investigation of fundamental problems of immunology or inflammation. The successful candidate(s) will be provided with the resources needed for a vigorous program. The Intramural Research Program has active research programs in genetics related to inflammation, signal transduction in immune and inflammatory cells, basic immunology and autoimmunity, muscle and skin biology and structural biology and there is a closely associated Clinical Investigations Branch in which translational research in the rheumatic diseases are now studied. Excellent opportunities exist for collaborations with these groups and with other intramural basic and clinical scientists.

Applicants should forward their curriculum vitae, bibliography, a statement of research interests, and the names of three references to:

Dr. Peter Lipsky
c/o Scott Sigley, NIAMS, HRMB
Building 31, Room 4C13
31 Center Drive, MSC 2350
Bethesda, MD 20892-2350
E-mail: *ss403p@nih.gov*

Applications must be postmarked by December 31, 2001

NIH is an Equal Opportunity Employer

Tenure Track Position/Applied Physics
CORNELL UNIVERSITY

The School of Applied and Engineering Physics at Cornell University is seeking applications for a tenure-track, assistant professor position. Consideration of applications for an associate or full professor level position may also be given to exceptionally well qualified individuals.

Candidates must be able to demonstrate the ability to develop a highly successful independent research program in an area of applied physics, and to participate effectively in the teaching of the applied physics curriculum at both the undergraduate and graduate level. Research areas of interest in this search include, but are not limited to, optics and photonics, nanostructure science and technology, materials physics and biological physics. Prospective candidates who wish to pursue interdisciplinary research efforts are strongly encouraged to apply. The successful applicant can expect a very competitive level of support for the start-up of a research program, and considerable institutional resources are available at Cornell that can strengthen this research program and support interdisciplinary and collaborative research ventures. The successful candidate can expect to benefit from association with one or more of Cornell's interdisciplinary research centers, national facilities, and national resources. These include the NSF funded Cornell Center for Materials Research, the Nanobiotechnology Center, the Cornell Nanofabrication Facility (a major node of the National Nanofabrication Users Network), the Cornell High Energy Synchrotron Source, the Cornell Theory Center (a high performance computation facility), the Biotechnology Center, and the NIH funded resources for Macromolecular X-ray Diffraction and for Biophysical Imaging.

Applications consisting of a resume, a statement of teaching philosophy, a statement of research interests, copies of most significant publications or preprints, and the names and addresses of at least three references, should be submitted in hard copy to:

CORNELL

Faculty Search Committee
School of Applied and Engineering Physics
212 Clark Hall , Cornell University
Ithaca, New York 14853-2501

Review of applications will begin on December 1, 2001. Interviewing will begin after January 1, 2002 and will continue until the position is filled.

Cornell University is an Affirmative Action/Equal Opportunity Employer and Educator and strongly welcomes nominations of, and applications from, women and underrepresented minorities.

http://www.cornell.edu
http://chronicle.com/jobs/profiles/2377.htm

POSITIONS OPEN

FACULTY POSITIONS
GENOMICS AND BIOINFORMATICS
University of Massachusetts Medical School

A major expansion of the Program in Molecular Medicine at the University of Massachusetts Medical School includes immediate openings for **SENIOR TENURED** and **JUNIOR TENURE-TRACK** faculty positions. The Program consists of Basic and Physician Scientists representing a broad range of disciplines in the biomedical sciences. The Program will expand to fully occupy its current modern building of approximately 80,000 square feet. Core facilities for tissue culture, media preparation, DNA sequencing, protein chemistry and proteomics, fluorescence-activated cell sorting, digital imaging and confocal microscopy, genomics, and transgenic/knockout mice are available. The positions will be highly competitive with regard to start-up funds, laboratory space, and salary. The Program also seeks individuals of outstanding research potential in the broadly defined areas of cell, developmental, molecular, or structural biology.

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

Dr. Roger Davis, Search Committee Chair, or
Dr. Michael P. Czech, Director
Program in Molecular Medicine
University of Massachusetts Medical School
373 Plantation Street
Worcester, MA 01605

An Equal Opportunity/Affirmative Action Employer.

ASSOCIATE PROFESSOR/PROFESSOR
NEUROBIOLOGIST/GLAUCOMA

Bascom Palmer Eye Institute invites applications for a full-time faculty position at the level of Associate Professor or Professor for a Laboratory Scientist or Physician Scientist to focus on the neurobiology of glaucoma. The successful candidate will have a Ph.D. and/or M.D. with experience in neurobiology of retinal ganglion cell injury and death. The individual will be expected to transfer a successful laboratory research program and to lead/build a research program in neurobiology of glaucoma. Research areas of importance include neuoroprotection, ganglion cell death, and/or retinal glial cell activation. The individual will be expected to network with current faculty who are interested in noninvasive electrophysiologic methods to measure retinal ganglion cell injury as well as with the strong neuroscience community in the School of Medicine, especially the Miami Project to Cure Paralysis. Opportunities also exist to recruit and train Physician Scientists for future expansion of the program. Interested candidates please send curriculum vitae, two letters of recommendation, and a cover letter summarizing experience and expectations to: **Scott Cousins, M.D., Chair, Search Committee, c/o Dania Alvarez, Bascom Plamer Eye Institute, University of Miami School of Medicine, P.O. Box 016880, Miami, FL 33101**.

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

University of Pennsylvania, Department of Mechanical Engineering and Applied Mechanics, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. Applicants with appropriate experience may be considered at a more senior level. Areas of primary interest include micro- and nanoscale mechanical engineering, computational micromechanics, MEMS, and biomechanical engineering. Candidates must have a Ph.D., must be committed to teaching at the undergraduate and graduate levels, and are expected to develop an externally funded research program. Address inquiries and applications (résumé, reprints of selected articles, list of at least three references) to: **Dr. Portonovo S. Ayyaswamy, Chair, Search Committee, 297 Towne Building, 220 South 33rd Street, University of Pennsylvania, Philadelphia, PA 19104-6315. Website: http://www.seas.upenn.edu/meam/.**

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

POSITIONS OPEN

PROFESSOR
VASCULAR BIOLOGY
WALTER G. ROSS CHAIR
Bascom Palmer Eye Institute
University of Miami

Bascom Palmer Eye Institute, the Department of Ophthalmology of the University of Miami School of Medicine, invites applications for a full-time faculty position at the level of Professor for the Walter G. Ross Endowed Chair. This position is offered to an established Laboratory Scientist with a record of excellence and leadership in a discipline of basic science relevant to vascular biology, especially (but not limited to) developmental biology of the vascular system, vascular injury/repair, endothelial biology, or vascular smooth muscle biology as well as a demonstrated interest in vision research. In addition to the Ross Endowed Chair, the position offers 5,000 square feet of laboratory space and resources to recruit up to three additional junior faculty. The successful candidate will have an M.D. and/or Ph.D.; will transfer an established research program; and will be expected to build a program of scientific excellence in disciplines relevant to macular degeneration, diabetic retinopathy, or retinal manifestations of glaucoma. The proposal must include opportunities to recruit and train Physician Scientists in vision research. Superb potential exists for major collaborations with the Vascular Biology Institute and the Diabetes Research Institute. Interested candidates should submit two letters of recommendation; curriculum vitae; and a cover letter summarizing experience, expectations, and brief vision for the program to: **Scott Cousins, M.D., Chair, Search Committee, c/o Dania Alvarez, Bascom Palmer Eye Institute, University of Miami School of Medicine, P.O. Box 016880, Miami, FL 33101**.

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

FACULTY POSITION
MACROPHAGE IMMUNOLOGIST/
CHRONIC INFLAMMATION
Bascom Palmer Eye Institute
University of Miami

Bascom Palmer Eye Institute, the Department of Ophthalmology of the University of Miami School of Medicine, invites applications for a full-time faculty position at the level of **ASSISTANT PROFESSOR** to focus on the role of chronic inflammation as a mechanism of angiogenesis and retinal degeneration in macular degeneration, diabetic retinopathy, or glaucoma. The successful candidate will have a Ph.D. and/or M.D. as well as research experience in the role of monocyte/macrophage/microglial activation and chronic inflammation in degenerative diseases. The applicant will join an existing project team that includes collaboration with Basic Scientists and Physician Scientists in the university's Vascular Biology Institute, but the individual will be expected to achieve independent funding and research projects. Interested candidates please send curriculum vitae, two letters of recommendation, and a cover letter summarizing experience and expectations to: **Scott Cousins, M.D., Chair, Search Committee, c/o Dania Alvarez, Bascom Palmer Eye Institute, University of Miami School of Medicine, P.O. Box 016880, Miami, FL 33101**.

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

A **POSTDOCTORAL POSITION** is available immediately to study presynaptic physiology in retinal neurons. Applicants must have a strong background in cellular physiology or biophysics. The successful applicant will use a combination of biophysical approaches to study neurotransmitter release and synaptic vesicle dynamics at ribbon synapses. Send curriculum vitae, statement of research interests, and contact information for three references to: **Dr. Ruth Heidelberger, Department of Neurobiology and Anatomy, University of Texas Houston Medical School, 6431 Fannin Street, Houston, TX 77030. E-mail: ruth.heidelberger@uth.tmc.edu**.

POSITIONS OPEN

DIRECTOR
RESEARCH ADMINISTRATION
Bascom Palmer Eye Institute
University of Miami

Bascom Palmer Eye Institute, the Department of Ophthalmology of the University of Miami School of Medicine, invites applications at the level of **ASSOCIATE PROFESSOR** or **PROFESSOR** for a faculty position as the Director of Research Administration. Bascom Palmer Eye Institute is recognized as an international leader in clinical ophthalmology with a strong tradition of excellence in clinical, translational, and laboratory research. The Institute is poised to implement the initial phase of a strategic plan for a major expansion of clinical and laboratory research. The Director of Research Administration will implement this plan and will facilitate the daily operation of the research enterprise. Specific duties will include improving administrative systems for the conduct of laboratory and clinical research, knowledge of regulations and procedures, and oversight of preparation and submission of research proposals as well as other responsibilities. The position requires an independent, assertive, detailed-oriented individual with a Ph.D. degree and at least two years of prior research administrative experience. The successful candidate will also transfer and maintain an active, NEI-funded vision research program. Interested candidates please send curriculum vitae, two letters of recommendation, and a cover letter summarizing experience and expectations to: **Scott Cousins, M.D., Chair, Search Committee, c/o Dania Alvarez, Bascom Palmer Eye Institute, University of Miami School of Medicine, P.O. Box 016880, Miami, FL 33101**.

The University of Miami is an Equal Opportunity Employer.

FACULTY POSITION
VASCULAR BIOLOGIST
Bascom Palmer Eye Institute
University of Miami

Bascom Palmer Eye Institute, the Department of Ophthalmology of the University of Miami School of Medicine, invites applications for a full-time faculty position at the level of **ASSISTANT PROFESSOR** to focus on the biology of stem cells/vascular progenitor cells and retinal angiogenesis in macular degeneration or diabetic retinopathy. The successful candidate will have a Ph.D. and/or M.D. as well as research experience in the biology of stem cells and vascular development. The candidate will initially join an existing project team that includes collaboration with Basic Scientists and Physician Scientists in the university's Vascular Biology Institute but will be expected to achieve independent funding and research projects. Interested candidates please send curriculum vitae, two letters of recommendation, and a cover letter summarizing experience and expectations to: **Scott Cousins, M.D., Chair, Search Committee, c/o Dania Alvarez, Bascom Palmer Eye Institute, University of Miami School of Medicine, P.O. Box 016880, Miami, FL 33101**.

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

ASSISTANT/ASSOCIATE PROFESSOR
Pharmaceutical Sciences

We seek candidates for a tenure-track position who have potential/demonstrated record for research excellence in one of the following areas: drug metabolism, pharmacogenomics, pharmacodynamics, or drug delivery and transport. A Ph.D. in a relevant field and postdoctoral experience are highly desirable. The successful candidate is expected to develop an independent and extramurally funded research program and participate in undergraduate and graduate instruction. Applicants should submit a letter of application, curriculum vitae, the names and addresses of three references, and a statement of research interests to: **Ho-Leung Fung, Ph.D., School of Pharmacy and Pharmaceutical Sciences, 547 Hochstetter Hall, University at Buffalo, Buffalo, NY 14260-1200. E-mail: hlfung@acsu.buffalo.edu**.

The University at Buffalo is an Equal Opportunity Employer/Recruiter.

Where Your Heart Goes to Work.

POST-DOCTORAL RESEARCH OPPORTUNITIES IN IMMUNOLOGY AND AUTOIMMUNITY

Post-doctoral position available to study immune regulatory mechanisms in inflammation and autoimmunity at the Blood Research Institute in the laboratory of Bonnie N. Dittel, Ph.D. Specific projects will use the mouse model (EAE) of the human demyelinating autoimmune disease multiple sclerosis to investigate

1) the cellular and molecular mechanisms of immune regulation of inflammation by B cells and gamma/delta T cells,
2) the contribution of chemokines in perpetuating a chromic autoimmune response, and
3) the role of B cells as antigen presenting cells in the recovery from CD4 T cell mediated autoimmunity.

Research experience in molecular biology and cellular immunology are desirable. Interested applicants with relevant research experience should send a CV, a brief description of training and future research goals along with the names and addresses of three references to:

Human Resources Services
The Blood Center
P.O. Box 2178
Milwaukee, WI 53201-2178
bdittel@bcsew.edu

For further information, please see our web site at **www.bloodctrwise.org**

EOE

THE BLOOD CENTER

Faculty Position in Bioinformatics/Quantitative Biology/ Genome Analysis
Assistant, Associate or Full Professor of Biopharmaceutical Sciences (Tenure Track)
Department of Biopharmaceutical Sciences
University of California, San Francisco

The Department of Biopharmaceutical Sciences, in conjunction with the Department of Biochemistry and Biophysics, invites applications for a tenure track position at the Assistant, Associate or full Professor level in the field of bioinformatics/quantitative biology beginning Summer 2002. We are seeking candidates with interests in genome analysis, structural genomics or bioinformatics, including analysis of DNA and protein sequence information and/or complex systems analysis, who would participate in new initiatives at UCSF in genomics, pharmacogenomics and quantitative biology. We welcome applicants from math, computer science, or physics backgrounds.

Applicants should have a Ph.D., M.D. or advanced degree with research experience and are expected to establish a dynamic research program. Applicants are also expected to actively participate in graduate training in Quantitative Biology and in professional school teaching. Applicants are eligible for membership in the PIBS and other graduate training programs.

Please send a curriculum vitae, three letters of reference, a summary of current research, and a concise outline of future research by Jan. 1, 2002 to the address below. Electronic applications are welcome and can be sent to ppowell@itsa.ucsf.edu.

Quantitative Biology/Genomics Search Committee
Department of Biopharmaceutical Sciences, Box 0446
513 Parnassus, Room S-926
University of California San Francisco
San Francisco, CA 94143-0446

UCSF is an Affirmative Action/Equal Opportunity Employer. The University undertakes affirmative action to assure equal employment opportunity for underrepresented minorities and women, for persons with disabilities, and for Vietnam-era veterans and special disabled veterans.

Director of Research Administration

Bascom Palmer Eye Institute

University of Miami

Bascom Palmer Eye Institute, the Department of Ophthalmology of the University of Miami School of Medicine, invites applications at the level of **Associate Professor or Professor** for a faculty position as the **Director of Research Administration.**

Bascom Palmer Eye Institute is recognized as an international leader in clinical ophthalmology with a strong tradition of excellence in clinical, translational and laboratory research. The Institute is poised to implement the initial phase of a strategic plan for a major expansion of clinical and laboratory research.

The Director of Research Administration will implement this plan and will facilitate the daily operation of the research enterprise. Specific duties will include improving administrative systems for the conduct of laboratory and clinical research; knowledge of regulations and procedures; oversight of preparation and submission of research proposals as well as other responsibilities. The position requires an independent, assertive, detailed-oriented individual with a PhD degree, and at least two years of prior research administrative experience. The successful candidate will also transfer and maintain an active, NEI-funded vision research program.

Interested candidates please send a curriculum vitae, two letters of recommendation and a cover letter summarizing experience and expectations, to:

Scott Cousins, MD
Chair, Search Committee
c/o Dania Alvarez
Bascom Palmer Eye Institute
University of Miami School of Medicine
PO Box 016880
Miami, FL 33101

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

FACULTY POSITION
GENOMICS PROGRAM
NYU Cancer Institute
New York University School of Medicine

The Cancer Institute of the New York University School of Medicine is seeking candidates for tenure/tenure-track faculty position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level to join its genomics program. Qualified applicants are sought with the expertise to develop and supervise a microarray facility and to become an integral member of the NYU genomics program.

This program, which includes Investigator-initiated research in gene discovery, gene therapy, genetic analysis, and genetic screening, provides support for other Cancer Institute and School of Medicine programs through management of a shared services facility supporting functional and computational genomics. The successful candidates should have demonstrated interest in and the ability to develop an independent program in some aspect of tumor biology. This recruitment, which is part of the growth agenda for the NYU School of Medicine, is critical to the enhancement of the translational bridges between its outstanding basic research programs and the multidisciplinary clinical programs that are the hallmark of NYU's revitalized Cancer Institute. Applicants should include curriculum vitae; a statement of research interests, reprints, and preprints; and three letters of reference forwarded under separate cover to: **Genomics Search Committee, Attention: Steven J. Burakoff, M.D., NYU Cancer Institute, 550 First Avenue, New York, NY 10016. Telephone: 212-263-8950; FAX: 212-263-2150**. Application deadline: December 1, 2001. *New York University School of Medicine is an Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR POSITION
FISHERIES BIOLOGY
Central Michigan University

The Department of Biology invites applications from broadly trained individuals for an Assistant Professor tenure-track position in fisheries biology beginning August 2002 or earlier. Candidates are expected to have a Ph.D. in the biological sciences; excellent verbal and written communication skills; and demonstrate a strong commitment to and potential for teaching, research, and external funding. Postdoctoral experience is preferred. Teaching responsibilities include courses in ichthyology, conservation of natural resources and fisheries conservation, instruction in the individual's area(s) of expertise at the undergraduate and M.S. level, and ability to contribute to the Department's introductory program. Submit a letter of application, curriculum vitae, copies of all transcripts, statement of teaching philosophy and statement of proposed research plans, and three letters of recommendation to: **Fisheries Biologist Search Committee, Department of Biology, Central Michigan University, Mt. Pleasant, MI 48859**. Review of applications will begin December 1, 2001, and continue until position is filled. Departmental information is available at **website: http://www.cst.cmich.edu/units/bio**. Serving more than 27,000 students, Central Michigan University is an innovative Doctoral/research-intensive institution recognized for strong undergraduate education and a range of focused graduate programs and research. *CMU, an Affirmative Action/Equal Opportunity institution, is strongly and actively committed to increasing diversity within its community* (see *website: http://www.cmich.edu/aaeo/*).

FACULTY POSITION in plant ecology, Fort Lewis College. **ASSISTANT PROFESSOR** of biology tenure-track position anticipated fall 2002 (contingent on funding) at a public, four-year liberal arts college. Direct inquiries to: **Dr. Preston Somers, Biology Department, Fort Lewis College, 1000 Rim Drive, Durango, CO 81301**. Application deadline: January 7, 2002. See **website: http://www.fortlewis.edu/acad-aff/arts-sci/biology/newpage12.htm**. *Affirmative Action/Equal Opportunity Employer. Women and minorities encouraged to apply.*

ASSISTANT/ASSOCIATE PROFESSOR
Microbial Genomics

The Department of Veterinary Microbiology and Pathology, College of Veterinary Medicine, Washington State University, invites applications for a full-time, tenure-track appointment at the level of Assistant or Associate Professor starting July 1, 2002. The faculty member will be expected to develop and maintain an independent, extramurally funded research program that interfaces with active research programs within the College of Veterinary Medicine. Active USDA- and NIH-funded research groups are focused on the immunology, pathogenesis, and genomics of organisms causing infectious diseases of animals and food-borne diseases. These research programs are enhanced by an NIH-funded graduate program and are located in the newly constructed Animal Disease Biotechnology Facility. The primary appointment will be in the Department of Veterinary Microbiology and Pathology and involve research on the genomics of bacteria and protozoa causing infectious diseases of animals and food-borne diseases as well as effective teaching in the graduate program. This position requires a Ph.D. degree and a minimum of two years of postdoctoral training in microbial genomics and bioinformatics. Preference will be given to candidates with demonstrated abilities in attracting funding, conducting and publishing the results of hypothesis-based research, and interest and experience in high-quality graduate education. Applicants for an Associate Professor-level position must have a very strong publication record and current extramural funding. Applications will be accepted until December 21, 2001, or until a suitable candidate has been identified. Submit curriculum vitae, summary of research interests, and names and addresses of three references to: **Dr. Travis McGuire, c/o Ms. Sue Zumwalt, College of Veterinary Medicine, Washington State University, P.O. Box 647040, Pullman, WA 99164-7040**. *WSU is an Equal Employment Opportunity/Affirmative Action Employer. Protected group members encouraged to apply.*

University of Pennsylvania Health System, Department of Psychiatry, Laboratory for Neuromodulation and Behavior, has open position for **ASSISTANT PROFESSOR** on the tenure track. Applicants must have strong backgrond in neuroscience with Ph.D. in neuroscience or related field or M.D. degree and expertise in behavioral electrophysiology (monkey or rat). Candidates interested in interdisciplinary research with an emphasis on cognitive neuroscience preferred. Successful candidate will participate in research in behavioral neuroscience research, grant writing, and establish independent research program supported by external funding in behavioral neuroscience. Send curriculum vitae and names of three references to: **Dwight L. Evans, M.D., Professor and Chair, Gary Aston-Jones, Ph.D., Professor and Director, Laboratory for Neuromodulation and Behavior, c/o Ava Plotnick, UPHS, Department of Psychiatry, 305 Blockley Hall, 423 Guardian Drive, Philadelphia, PA 19104.** *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

CHAIR, BIOLOGY DEPARTMENT, Texas Woman's University, invites applications and nominations for Chair of the Biology Department. Ph.D. required. Preferred specialization in molecular biology with funded research. The Department has 14 faculty, 300 undergraduate majors, 13 M.S., and 12 Ph.D. students in molecular biology and participates in an NIH-funded multiethnic biomedical research support program (MBRS).

Submit letter of application, curriculum vitae, research agenda, statement of leadership philosophy, and contact information for five references to: **Dr. Joyce Williams, Chair, Biology Search Committee, P.O. Box 425887, Denton, TX 76204. E-mail: jwilliams@twu.edu; website: http://www.hr@twu.edu**. Screening will begin December 3, 2001.

Texas Woman's University is an Equal Opportunity Institution.

ASSISTANT PROFESSOR OF CARDIOVASCULAR MEDICINE
University of California, Davis

The Division of Cardiovascular Medicine is seeking applications for a position as Assistant Professor with expertise in basic research in cardiovascular biology. We are particularly interested in recruiting individuals with strong expertise in molecular genetics and in murine models of cardiac myopathies. Candidates should have a Ph.D. degree, a clear record of scientific excellence, and must hold or be competitive for external research funding. The successful individual will be expected to have an independent research program and to participate in teaching of graduate, postgraduate, and medical students. The Division has related research programs in exercise, vascular biology, cardiac metabolism, and cardiac ion channel regulation. Send letters with complete curriculum vitae, names, and addresses of three references to:

Ann C. Bonham, Ph.D.
Chair, Cardiovascular Medicine
Faculty Search Committee
c/o Terri Bradley, Division Manager
University of California, Davis Medical Center
Division of Cardiovascular Medicine
4860 Y Street, Suite 2820
Sacramento, CA 95817

Positions are open until filled but not later than February 28, 2002.

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

ASSISTANT PROFESSOR
INVERTEBRATE BIOLOGIST

The Department of Biology at Wilkes University invites applications for a tenure-track position in invertebrate biology starting August 2002. We seek an individual who is dedicated to innovative teaching in an undergraduate setting and who has expertise in one or more of the following areas: (1) physiology, (2) developmental biology, or (3) genetics. Responsibilities will include participation in the cell/molecular biology semester of our general biology sequence for science majors and the development of upper-level electives in areas of specialization. Ph.D. and commitment to teaching excellence are required. Development of an active research program involving undergraduates is expected. Preference will be given to individuals with postdoctoral experience and the interpersonal skills necessary to interact effectively with other faculty, students, and staff. Applicants should provide curriculum vitae, statements of teaching philosophy and research goals, reprints, and three letters of recommendation to: **Dr. Lester Turoczi, Chair, Division of Biology, Chemistry, and Health Sciences, Wilkes University, Wilkes–Barre, PA 18766**. Application deadline is December 31, 2001. *Wilkes University, a private, nonsectarian institution, is an Equal Opportunity/Affirmative Action Employer and actively seeks applications from women and minorities.*

ASSISTANT/ASSOCIATE PROFESSOR
Molecular Microbiology

The Department of Biology in the College of Arts and Sciences at Virginia Tech invites applications for a tenure-track position. Applicants should demonstrate a strong background in the application of molecular techniques to the study of the physiology, genetics, diversity, or ecology of prokaryotic microorganisms. Application details and a complete position description can be found at **website: http://www.biol.vt.edu/faculty/position.html** or by contacting **Dr. Allan Yousten**. Individuals with disabilities desiring accommodations in the application process should notify: **Dr. A. Yousten, Biology Department; e-mail: yousten@vt.edu; Telephone: 540-231-5909** by the application deadline. Applications are due by December 15, 2001. *The College of Arts and Sciences is deeply committed to recruiting, selecting, promoting, and retaining women, persons of color, and persons with disabilities. We strongly value diversity in the college community and seek to assure Equality in Education and Employment.*

UNIVERSITY OF CAMBRIDGE
Department of Zoology

Lectureships in Behavioural Biology

Applications are invited for two Lectureships in Behavioural Biology to be held in the Sub-Department of Animal Behaviour in the Department of Zoology (http://www.zoo.cam.ac.uk/), starting on 1 October 2002. The Lectureships will be part of a collaborative programme of research with the Department of Biological Anthropology on brain evolution, aimed at integrating genomics and the complexity of the environment in which animals develop and evolve, initially supported by a ten-year grant from the Leverhulme Trust.

The Department has strong research groups in the neural, genetic and endocrine mechanisms involved in social behaviour and learning of birds and mammals, and in Evolutionary Biology, Cell and Developmental Biology, and Ecology. The prime criteria for appointment will be academic excellence, a demonstrated ability to carry out research of international stature and a commitment to excellence in teaching.

The pensionable scale of stipends for a University Lecturer is £22,299 per annum, rising by eleven annual increments to £34,390 per annum. The appointments will be for five years in the first instance, with the possibility of reappointment to the retiring age.

Further information about the post and an application form may be obtained at http://www.bio.cam.ac.uk/sbs/appointments/ or from the Head of Department, Professor Malcolm Burrows, Department of Zoology, Downing Street, Cambridge CB2 3EJ, e-mail mb135@cus.cam.ac.uk or telephone 01223 336601, fax 01223 336687, to whom applications (7 copies) including a *curriculum vitae*, list of publications and names of not more than three referees, should be sent so as to reach him not later than 22 November 2001.

The University is committed to equality of opportunity

University of California, Santa Cruz
Center for Biomolecular Science and Engineering

http://www.cse.ucsc.edu/centers/cbe/

The Center for Biomolecular Science and Engineering (CBSE) at the University of California, Santa Cruz invites applications for three faculty positions at all levels in the general areas of bioinformatics and biomolecular engineering for the 2002-2003 academic year. We are particularly interested in the areas of comparative sequence analysis, biological databases and data mining, computational simulation and system modeling, automation and innovative technologies for high throughput experimentation, microfluidics, proteomics, and nanoscale biosensors. Candidates should have outstanding research records demonstrating interdisciplinary approaches to important problems in biology, genomics, biomedicine, or related areas, and a willingness to participate in the academic programs of the CBSE. The CBSE is an interdisciplinary research and academic organization spanning the Baskin School of Engineering and the Division of Natural Sciences, and is directed by Hughes Investigator and UC Presidential Chair of Computer Science David Haussler. Candidates will initially be hosted by one of our existing departments, then transfer to the new department of Biomolecular Engineering upon its initiation.

Screening will begin with applications received by January 7, 2002, and continue until the positions are filled. Positions available Fall of 2002, pending final budgetary approval. For complete descriptions and application instructions, please see **http://www.soe.ucsc.edu/events/jobs/.**

UCSC is an AA/EEO/IRCA Employer.
Women and minorities are encouraged to apply.

GLOBAL OPPORTUNITIES

Australia's National University

Director, Research School of Biological Sciences

The University is seeking to appoint a Director of the Research School of Biological Sciences to succeed Professor John Hearn who has been appointed Deputy Vice-Chancellor (Research). The Research School of Biological Sciences is internationally recognised as a leading centre of basic and strategic biological research and graduate student training.

The Director is the academic and administrative leader of the School and is responsible to the Vice-Chancellor, Professor Ian Chubb, for the management and supervision of its academic, technical, financial and administrative affairs.

The Director will have an outstanding, international reputation in research and scientific management, and a broad, integrative vision of the biological sciences; management experience in a higher education institution, or a public or private corporation; and a proven capacity to provide strong leadership in a research environment.

The Director will be expected to promote the interests of the Research School of Biological Sciences and the University both nationally and internationally and, together with the new Deputy Vice-Chancellor (Research), enhance the high reputation of the School for research and postgraduate training.

More details on this challenging role can be found at **http://www.anu.edu.au/hr/jobs/rsbs.pdf**

Contact: Initial inquiries may be directed to Professor Frank Jackson, Research School of Social Sciences on telephone +61 2 6125 2146 or email **Frank.Jackson@anu.edu.au.** Requests for further information and position description, may be directed in confidence to Anne Stewart on telephone +61 2 6125 4739 or email **Anne.Stewart@anu.edu.au**

Closing date: 16 November 2001.

Reference: RSBS595.

THE AUSTRALIAN NATIONAL UNIVERSITY

Starcom2062

For more opportunities and how to apply visit
http://www.anu.edu.au/hr/jobs/

POSITIONS OPEN

OREGON HEALTH AND SCIENCE UNIVERSITY
OGI School of Science and Engineering
Department of Computer Science and Engineering

The Department of Computer Science and Engineering invites applications for multiple faculty positions at all ranks in bioinformatics and computational biology.

Building on a shared commitment to excellence in graduate education and research, Oregon Graduate Institute of Science and Technology (OGI) merged with Oregon Health Sciences University on July 1, 2001. OGI became the OGI School of Science and Engineering with the renamed Oregon Health and Science University (OHSU). Establishing a strong interdisciplinary program focusing on information technology for health care and biosciences is a top priority of the merged institution.

The typical teaching load in CSE is two graduate-level classes per year. Faculty receive contracts of two to five years' duration, renewable annually with satisfactory academic performance. To learn more about the Department, OHSU, and the Portland region, please visit **website: http://cse.ogi.edu**.

To apply, send a brief description of your research interests, the names of at least three references, and curriculum vitae with a list of publications to: **Chair, Recruiting Committee, Department of Computer Science and Engineering, OGI School of Science and Engineering at OHSU, 20000 N.W. Walker Road, Beaverton, OR 97006**. The e-mail address for inquiries is **e-mail: csedept@cse.ogi.edu**.

OGI/OHSU is an Equal Opportunity/Affirmative Action Employer. We particularly welcome applications from women, minorities, and individuals with disabilities.

RESEARCH ASSOCIATE POSITION ALLOGENEIC TRANSPLANT PROGRAM
Case Western Reserve University

A Research Associate position is currently available for studies involving the analysis of umbilical cord blood NK and T cell immunobiology. These studies involve establishment of umbilical cord blood transplant recipient EBV B cell lines and T cell clones from donor alloreactive lymphocytes and gene array analyses using the Affymetrix™ system. Knowledge of cellular immunology and a strong background in molecular biology are preferred.

Applicants must have an M.D. or Ph.D. degree. To apply, please send curriculum vitae, bibliography, and two letters of recommendation to: **M.J. Laughlin, M.D., Director, Allogeneic Transplant Program, Case Western Reserve University/University Hospitals Ireland Cancer Center, 11100 Euclid Avenue, Wearn 433, Cleveland, OH 44106-5065. Telephone: 216-844-8609; FAX: 216-844-3616, e-mail: mjl13@po.cwru.edu**.

Case Western Reserve University is an Equal Opportunity Employer.

ASSISTANT PROFESSOR
Neuroscience

The Department of Anatomy and Cell Biology at the Oklahoma State University Center for Health Sciences (**website: http://www.healthsciences.okstate.edu/center**) invites applications for a tenure-track faculty position. Applicants must have a Ph.D. in neurobiological science (neuroanatomy preferred), at least two years of postdoctoral research experience, and demonstrated teaching skills. The successful candidate will be expected to develop an independent research program with external funding and participate in teaching neuroanatomy to medical and graduate students. Laboratory space and start-up funds are available. Send curriculum vitae, statement of current and future research plans, teaching experience, and three letters of reference to: **Human Resources, OSU Center for Health Sciences, 1111 West 17th Street, Tulsa, OK 74107**. Human Resources **website: http://osu.com.okstate.edu/center/support/hr**. Review of applications will begin December 1, 2001. *OSU is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

UK

TENURE-TRACK POSITION
Spinal Cord and Brain Injury Research

The Spinal Cord and Brain Injury Research Center at the University of Kentucky College of Medicine invites applications for a tenure-track position at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR** with the possibility of an Endowed Chair position. Applicants should have a Ph.D. and/or M.D. and at least three years of postdoctoral research experience in neuroscience or a related discipline. Areas of particular interest include axon guidance, CNS regeneration, neural plasticity, neural precursor cells, neural tissue engineering, and neurotrophins. Successful candidates will be expected to establish a vigorous, federally funded research program; to participate in activities of a growing interdisciplinary team of spinal cord and head injury researchers (**website: http://www.mc.uky.edu/scobirc/faculty.asp**); and to contribute to the teaching of graduate students. Applicants should send curriculum vitae, statement of research interests and future directions, and arrange to have three letters of reference sent to: **James W. Geddes, Ph.D., Director, Spinal Cord and Brain Injury Research Center, 226 Sanders-Brown Building, University of Kentucky, Lexington, KY 40536-0230. Telephone: 606-257-1412, Extension 254; FAX: 606-323-2866; e-mail: jgeddes@uky.edu**. E-mail submissions are preferred. *The University of Kentucky is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.*

Brooklyn College/CUNY invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level in the Department of Biology beginning September 2002. We seek a broadly trained Animal (nonmammalian) or Plant Physiologist. The faculty member will teach an introductory course in comparative physiology for biology majors and an elective course in his/her specialty. Development of a strong, competitive, research program that trains undergraduate and graduate research students and generates external grant funding is essential. Applicants must have a Ph.D. degree, postdoctoral training, publications, and a strong commitment to undergraduate education. A complete application consists of curriculum vitae, statement of research plans, and three letters of recommendation (to be sent directly from three references). Review of résumés will continue until the position is filled. Apply to: **Assistant Vice President of Human Resource Services, Brooklyn College, 2900 Bedford Avenue, Brooklyn, NY 11210**. *An Affirmative Action/Equal Employment Opportunity/Immigration Reform and Contract Act/Americans With Disabilities Act Employer.*

ECOLOGY/VERTEBRATE BIOLOGY. ASSISTANT/ASSOCIATE PROFESSOR, full-time, tenure track. The Alma College Biology Department seeks a person with a Ph.D. plus combined strengths in teaching and research and a commitment to research with undergraduates. Teaching responsibilities will include lectures and laboratories in ecology, a nonmajors biology class, an upper-level course, and a seminar in the individual's specialty. The successful applicant may also be responsible for teaching one laboratory section in the introductory biology class. Applicants should provide curriculum vitae; a statement of teaching and research interest; and arrange for official graduate transcripts and three letters of reference to be sent by December 5, 2001, to: **Dr. Lawrence Wittle, Department of Biology, Alma College, 614 West Superior Street, Alma, MI 48801. Telephone: 989-463-7282; e-mail: wittle@alma.edu**. For more information, visit **website: http://www.alma.edu**. *Alma College's nondiscrimination policy includes age, color, creed, gender, national origin, physical ability, race, religion, and sexual orientation. Affirmative Action/Equal Opportunity Employer. Women and ethnic minorities are strongly encouraged to apply.*

POSITIONS OPEN

TWO FACULTY POSITIONS IN BIOLOGY
Northeastern University
BIOINFORMATICS

The Department of Biology of the College of Arts and Sciences, in conjunction with the Bouve College of Health Sciences and the College of Computer Science, invites applications for a tenure-track **ASSISTANT PROFESSORSHIP** available September 2002. Qualifications include a Ph.D. in bioinformatics or a related discipline and postdoctoral experience. The successful candidate will be expected to develop an externally funded research program in bioinformatics and to participate enthusiastically in undergraduate and graduate teaching. Our **website: http://www.biology.neu.edu** provides information about the Department. The **websites** of Bouve College of Health Sciences (**http: www.bouve.neu.edu**) and the College of Computer Science (**http://www.ccs.neu.edu**) provide additional background on bioinformatics-related research at Northeastern.

ECOLOGY

The Department of Biology invites applications for a tenure-track **ASSISTANT PROFESSORSHIP** available September 2002. Qualifications include a Ph.D. in ecology or a related discipline and postdoctoral experience. The successful candidate will be expected to develop an externally funded research program in ecology and to participate enthusiastically in undergraduate and graduate teaching. All areas of ecological science will be considered for this position including community, population, behavioral, evolutionary, physiological, and biochemical ecology. Applicants should note the opportunity for marine ecological research available at our Marine Science Center in Nahant, Massachusetts, but Ecologists working in other habitats will receive equal consideration. Our **websites: http:// www.biology.neu.edu** and **http://www.dac.neu.edu/msc** provide information about the Department and the Marine Science Center.

Applicants should send curriculum vitae, a statement of research interests and plans, and a statement of teaching experience and interests to: **Bioinformatics Faculty Search Committee** or **Ecology Faculty Search Committee, 414 Mugar Hall, Northeastern University, Boston, MA 02115**. The applicant should also arrange to have at least three letters of reference sent independently to the appropriate committee. Review of applications will begin on December 1, 2001. *Northeastern is an Equal Opportunity/Affirmative Action/Title IX University. Women and minority candidates are especially encouraged to apply.*

PLANT COMMUNITY ECOLOGIST
University of Wisconsin–Milwaukee

The Department of Biological Sciences at the University of Wisconsin–Milwaukee (UWM) invites applications for a tenure-track position in plant community ecology at the **ASSISTANT PROFESSOR** level. The Department has a strong research emphasis in ecology, evolution, and conservation biology. In addition to a newly renovated laboratory building on campus, the UWM Field Station affords unique facilities and natural areas for research and instruction. Candidates are expected to develop a vigorous, extramurally funded research program and to supervise Ph.D. and M.S. research. Teaching responsibilities include plant ecology and periodic participation in general ecology and general biology. Additional information about this position is available at **website: http://www.uwm.edu/Dept/Biology/Docs/ecologist.html**.

Applicants should submit curriculum vitae, statements of research and teaching interests, pertinent reprints, and arrange to have three letters of reference sent to: **Chairperson, Plant Community Ecologist Search Committee, Department of Biological Sciences, University of Wisconsin–Milwaukee, P.O. Box 413, Milwaukee, WI 53201**. Applications must be postmarked by January 4, 2002. The names of those applicants who have not requested that their identity be withheld and the names of all finalists will be released upon request. *UWM is an Equal Opportunity Institution committed to diversity.*

NCI CCC

A Comprehensive Cancer Center Designated by the National Cancer Institute

Comprehensive Cancer Center of Wake Forest University

Medical Center Boulevard, Winston-Salem, North Carolina 27157

The Comprehensive Cancer Center of Wake Forest University is recruiting for faculty positions over the next two years with primary appointments in the departments listed below. Attractive start-up funds, lab space and a collaborative environment for basic and translational research are available. Send C.V. and statement of research interests to the contact below. *AA/EOE*

Biochemistry	Cancer Biology	Pathology	Radiation Biology
• Assistant or Associate Professor – X-Ray crystallography • Assistant Professor – MRI in animal models • Assistant Professor – proteomics	• Assoc. Prof. – DNA damage and repair • Assoc. Prof. – signaling and apoptosis • Assist. Prof. – prostate biology • Assist. Prof. – molecular biology of natural anti-cancer compounds	• Assistant or Associate Professor – regulation of apoptosis • Assistant or Associate Professor – cell cycle progression	• Assistant Professor – free radical/ radiation biology/oxidative stress • Associate Professor – free radical/ radiation biology/oxidative stress
Contact: William Gmeiner, Ph.D. bgmeiner@wfubmc.edu	Contact: Frank M. Torti M.D. ftorti@wfubmc.edu	Contact: Mark Willingham, M.D. mwilling@wfubmc.edu	Contact: Mike Robbins, Ph.D. mrobbins@wfubmc.edu

FACULTY POSITION IN BIOMEDICAL IMAGING/ BIO-NANOTECHNOLOGY

The Department of Bioengineering at the University of California, Berkeley invites applications for a tenure-track position in Biomedical Imaging/ Bio-Nanotechnology at the assistant, associate or full professor level starting July 1, 2002. The new Department of Bioengineering on the Berkeley campus has a joint graduate program at Berkeley and the University of California, San Francisco (UCSF), and plans a joint, intercampus department between the two UC campuses. The position also includes opportunities for involvement in relevant programs at the Lawrence Berkeley National Laboratory (LBNL). The juxtaposition of two major research universities and an outstanding national research institute provides an exceptional environment for both research and training in this rapidly growing field. The successful candidate will have a unique opportunity to provide intellectual and technological leadership in bioengineering and facilitate programmatic interactions across the University of California.

Applicants should have (or be about to receive) a doctoral degree or equivalent in the physical or biological sciences or engineering applied to biomedical systems, and a research focus in one of the broad areas listed below:

- nanoscale and microscale biotechnology
- metabolic, microscopic, and human imaging

We seek individuals with demonstrated excellence in research, and the potential for excellence in teaching and leadership. Successful applicants will be expected to establish a pre-eminent research and educational program, and develop and teach undergraduate and graduate courses in their general area of specialty.

Applicants should send a complete curriculum vitae, a selection of publication reprints (five or less), a brief statement of future research plans and interests, and the names of at least three references to: **Chair Thomas F. Budinger, Department of Bioengineering, 459 Evans Hall MC 1762, University of California, Berkeley, CA 94720-1762.**

The review of applications will commence on December 1, 2001; all applications must be received by February 1, 2002 for consideration in this year's recruitment cycle.

The University of California is an Equal Opportunity Affirmative Action Employer, committed to excellence through diversity.

Tenure Track Molecular Imaging Scientist Department of Radiology, Clinical Center, NIH

The Warren G. Magnuson Clinical Center of the National Institutes of Health (NIH) is seeking a tenure track scientist in its newly established Molecular Imaging Laboratory. This position offers a unique opportunity for conducting multidisciplinary research in the exciting field of *in vivo* molecular imaging. Responsibilities will include designing and developing chemical probes for *in vivo* molecular imaging investigations.

Qualification Requirements: Candidates must have a Ph.D. or, preferably, the combination of an M.D. and a Ph.D., with primary training in synthetic chemistry or bioorganic chemistry and at least 5 years of post-graduate experience in molecular imaging probe design and development. Familiarity with NMR, mass spectroscopy, IR, UV-VIS for small molecular purifications is necessary; as well methods in material characterization (TEM, light scattering, GPC, etc.) are required. In addition, the candidate is expected to have working knowledge of various imaging techniques such as MRI, CT, PET, and Nuclear Scintigraphy. Preference will be given to candidates who also have experience in genomics/proteomics analysis, as well as protein purification and characterization.

How to Apply: Applicants must submit a Curriculum Vitae, Application for Federal Employment (OF-612), or other equivalent written format that addresses the requirements indicated in this advertisement. Application materials should be sent to: **Gwen Shinko, Office of Human Resources Management, Clinical Center, NIH, 6100 Executive Blvd., Room 3E01, MSC-7509, Bethesda, MD 20892-7509.** Applications may also be sent via email to **gwen_shinko@nih.gov** or fax to **(301) 594-2996**. Applications should be submitted no later than December 31, 2001. Further information may be obtained by calling **Ms. Shinko** on **(301) 496-6924.**

NIH is an Equal Opportunity Employer.

POSITIONS OPEN

EVOLUTIONARY DEVELOPMENTAL BIOLOGY
Department of Biological Sciences

The Department of Biological Sciences, University of Alberta, invites applications for an **ASSISTANT PROFESSOR** (tenure-track) position in evolutionary developmental biology to begin July 1, 2002. This appointment will be made under the auspices of the Canada Research Chairs Program (Tier II level). The candidate should have a strong record of research examining patterns or mechanisms of development from a comparative or evolutionary perspective as well as potential for excellence in teaching. A research focus on marine organisms would be a significant asset to the Department, but outstanding applicants who work on other systems will also be seriously considered. The Department offers an exciting environment for collaboration with internationally recognized strengths in systematics and evolution, molecular biology and genetics, physiology and cell biology, and aquatic and terrestrial ecology (**see website: http://www.biology.ualberta.ca**). Research excellence of our 75 faculty members and 275 graduate students is supported by exceptional infrastructure including extensive museum collections, a modern molecular biology service unit, advanced microscopy and imaging capabilities, extensive controlled-environment facilities, and several field stations including the renowned Bamfield Marine Sciences Centre. Candidates should submit curriculum vitae, one-page summaries of research plans and teaching interests, and reprints of their three most significant publications to: **Dr. Gregory J. Taylor, Chair, Department of Biological Sciences, University of Alberta, Edmonton, Alberta T5G 2E9 Canada. E-mail: positions@biology.ualberta.ca**. Applicants should also arrange for three reference letters to be submitted. Closing date: December 15, 2001. *The records arising from this competition will be managed in accordance with provisions of the Alberta Freedom of Information and Protection of Privacy Act (FOIPP). The University of Alberta hires on the basis of merit. We are committed to the principle of Equity in Employment. We welcome diversity and encourage applications from all qualified women and men including persons with disabilities, members of visible minorities, and Aboriginal persons. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. If suitable Canadian citizens and permanent residents cannot be found, other individuals will be considered.*

FACULTY POSITION
INTEGRATIVE GENOMICS
University of Michigan Medical School

The Department of Physiology at the University of Michigan seeks to fill a tenure-track faculty position (**ASSISTANT/ASSOCIATE PROFESSOR**). Applications are invited from individuals using genetic manipulation and functional measurements to study the function and integration of gene products in a tissue or animal. The selected individual is expected to mount a vigorous research program and participate in the teaching of graduate and professional students. Applicants will be considered for appointment as a Biological Sciences Scholar at Michigan (See *Science* **August 10**, page 1191) and will receive a very generous start-up package. The individual will also participate in the Center for Integrative Genomics, which features facilities for sophisticated functional measurements in mice. The Medical School possesses an outstanding transgenic animal facility and the University is developing a new Life Sciences Institute, which will contribute to the superb research environment. Applicants should submit their curriculum vitae, a two-to-four-page summary of past and planned research, and three letters of recommendation to:

Dr. John A. Williams
Chair, Department of Physiology
University of Michigan
Ann Arbor, MI 48109-0622
E-mail: jawillms@umich.edu
Website: http://www.med.umich.edu/phys/

The University of Michigan Medical School is an Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION
APPLIED SCIENCE DEPARTMENT

The Applied Science Department of the College of William & Mary invites applicants for a tenure-track position at the **ASSISTANT PROFESSOR** level in biomedical engineering, biomaterials, and/or a related field emphasizing either computational or experimental tools. An offer at the Associate level may be made for exceptionally strong qualifications. The new faculty member will be asked to contribute significantly to leadership in the effort of the Department and the College to strengthen life sciences activities. Further, he or she will be strongly encouraged to form collaborations with other W&M members and with external institutions as appropriate. Excellence and high commitment in the teaching of undergraduate and graduate students is expected of all faculty at the College. Candidates at the Associate level must show an established, successful research program; excellence in teaching; effectiveness in forming collaborations; and evidence of national or international prominence in the field. The Applied Science Department occupies facilities on William & Mary's main campus in Williamsburg, Virginia, and at the Applied Research Center at Jefferson Laboratory in nearby Newport News, Virginia. Candidates should submit complete curriculum vitae, copies of no more than five refereed publications in the above areas, and have at least three letters of recommendation submitted on their behalf to: **New Faculty Search, Department of Applied Science, The College of William & Mary, P.O. Box 8795, Williamsburg, VA 23187-8795**. Review of materials is expected to begin about January 1, 2002, and continue until the position is filled. *The College is an Equal Employment Opportunity/Affirmative Action Employer.*

TWO TENURE-TRACK POSITIONS IN BIOLOGY
Gordon College
Wenham, Massachusetts

(1) **BIOCHEMISTRY/MOLECULAR BIOLOGY**: Ph.D. required; previous teaching and postdoctoral research experience strongly preferred. Primary teaching in biochemistry/molecular biology. Involvement in advising students in the biotechnology concentration and guidance in student research and internships is expected.

(2) **PLANT BIOLOGY**. Ph.D. required; previous teaching and postdoctoral research experience strongly preferred. Primary teaching in botany, plant physiology, and genetics. Position also serves as on-campus liaison and recruiter for the sustainable tropical agriculture course (international seminar).

Gordon College is a Carnegie I, liberal arts college with a strong commitment to historic evangelical Christianity. Faculty are expected to engage in scholarship that integrally relates Christianity to their discipline. Department members teach three courses per term or equivalency. For further information, visit the **website: http://www.gordon.edu**. Send letter of application, curriculum vitae, a two-page statement of philosophy, and a statement of ongoing research focus to: **Office of the Provost, 255 Grapevine Road, Wenham, MA 01984. E-mail: chersey@gordon.edu**.

FACULTY POSITION in genetics, Elizabethtown College, Elizabethtown, Pennsylvania. Tenure-track position in genetics beginning August 2002. Candidates should have some familiarity with classical, population, plant and cytogenetics; possess a Ph.D.; and have a commitment to undergraduate teaching and research. Responsibilities include teaching courses in genetics, introductory biology for majors, and biology for nonmajors in an area of the candidate's choice. The position will involve recruiting and advising students. The successful candidate will be expected to maintain an active research program involving undergraduates. For application procedure, visit our **website: http://www.etown.edu/humanresources/faculty/Biology.htm**. Application deadline: November 30, 2001. *Women and minority candidates are strongly encouraged to apply. Affirmative Action/Equal Opportunity Employer.*

PROFESSOR AND DIRECTOR
CENTER FOR RESEARCH IN INFECTIOUS DISEASES
VIROLOGY AND IMMUNOLOGY
Children's Research Institute (CRI)
Children's National Medical Center (CNMC)
Washington, D.C.

The Children's Research Institute of the Children's National Medical Center and The George Washington University is recruiting a Scientist with a nationally recognized research program in the area of infectious diseases, virology, and immunology. While all areas of research relevant to viral and microbial disease will be considered, there is particular interest in recruiting an individual interested in approaches that employ genomics and proteomics. Opportunities exist for collaborations with colleagues at the Center for Functional Genomics at CRI (**Eric Hoffman, Director**) and the other research centers comprising the CRI, George Washington University (GWUMC), and its affiliate, The Institute for Genomics Research (TIGR). Applicants should hold an earned Doctorate (Ph.D., M.D., or the equivalent); hold the rank of **ASSOCIATE PROFESSOR** or higher, and have an existing, extramurally funded research program. Generous newly constructed laboratory space with a panoramic view of Washington, D.C., outstanding start-up package; dependents educational benefits; salary; and recruitment slots for additional junior faculty will be provided. CRI/CNMC is located in the northwest section of Washington, D.C., and within a short driving distance from a Metro station, GWUMC, NIH, and TIGR as well as the new bioinformatics campus of the Howard Hughes Medical Institute. Interested applicants should send relevant curriculum vitae, a two-page statement of interest and future directions, and names and addresses of three references to:

Search Committee
The George Washington University
Ross Hall, Room 736
2300 Eye Street N.W.
Washington, DC 20037
E-mail: mtmpih@gwumc.edu

CNMC is an Equal Employment Opportunity Commission Employer.

FACULTY POSITION
ENVIRONMENTAL CHEMIST

The University of Dubuque, a private university affiliated with the Presbyterian Church (U.S.A.), invites applications for a tenure-track position in the interdisciplinary Department of Environmental Science at the **ASSISTANT PROFESSOR** level beginning in August 2002. The position requires a Ph.D. in environmental chemistry, chemistry, or a closely related field and a commitment to undergraduate education and scholarship. Experience with GC, GC/MS, AAS, IC, and FTIR desirable. Position will involve significant responsibility for development of water science and environmental monitoring/compliance tracks within our expanding environmental science program; therefore, experience in water quality studies and applied environmental regulation is desirable. Interested candidates should forward their résumé; statements of teaching philosophy and research interests; copies of transcripts; and the names and addresses of three references by December 31, 2001, to: **Ms. Pam Gehl, Human Resources, University of Dubuque, 2000 University Avenue, Dubuque, IA 52001. E-mail: pgehl@dbq.edu**. *An Affirmative Action/Equal Opportunity Employer.*

FULL PROFESSOR, environmental policy. The Institute for Earth Systems Science and Policy (ESSP) of the California State University, Monterey Bay, invites applications for the James W. Rote Distinguished Professorship. ESSP (**website: http://essp.csumb.edu**) is looking for a senior scholar who will connect science to policy through teaching, research, and active leadership. Position requirements and additional information may be found at **website: http://jobs.csumb.edu**. Screening begins December 14, 2001. *Equal Opportunity Employer.*

WAYNE STATE UNIVERSITY

Postdoctoral Positions in Cellular and Molecular Neuroscience

Several postdoctoral positions are available to study the cellular and molecular mechanisms regulating neural signaling. Successful applicants will play integral roles in highly collaborative, multidisciplinary training environment. Special emphasis is placed on the career development of trainees.

Visit our web site
http://psychiatry1.med.wayne.edu/cmnrd.htm

- Electrophysiology (whole cell recording techniques)
- Promoter analysis of neuronal genes
- Confocal microscopy
- Microarray analysis (gene expression profiling)
- Protein biochemistry and proteomics
- Cellular and molecular neurobiology
- Human postmortem tissue and disease
- Transgenic animals

Interested candidates should send a brief letter describing their research interests, a curriculum vitae, and the names of three references to the appropriate principal investigator(s) at: **Wayne State University School of Medicine, Department of Psychiatry and Behavioral Neurosciences, 540 E. Canfield Ave., 2309 Scott Hall, Detroit, MI, 48201,** or via e-mail.

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

FACULTY POSITIONS IN MOLECULAR BIOLOGY AND REGULATORY BIOCHEMISTRY
University of Minnesota-Twin Cities

In conjunction with the completion of the new Molecular and Cellular Biology Building, and as part of campus-wide initiatives in genomics and proteomics, the **Department of Biochemistry, Molecular Biology and Biophysics** invites applications for full-time, tenure-track Assistant Professor positions to begin on or around July 1, 2002 in:

Molecular Biology: The Molecular Biology division seeks candidates in any area and particularly those who have interests in mammalian genome structure and function. **Regulatory Biochemistry:** The Regulatory Biochemistry division seeks candidates for one or more positions in the area of biological recognition and signal transduction.

Successful candidates will be expected to develop strong, externally funded research programs and contribute to the undergraduate, graduate and professional teaching programs of the department. The ability to interact collaboratively among a variety of disciplines will be strongly encouraged. All candidates must have a Ph.D. and/or M.D. degree. Desired experience includes at least two years of postdoctoral experience and a strong publication record.

Successful candidates will receive a substantial start-up package to establish their laboratories and a salary commensurate with education and experience. Applications will be accepted immediately and until the positions are filled. Please send curriculum vitae, a brief statement of current and future research, and three letters of recommendation that consider both research and teaching potential. Address these materials to either the **Molecular Biology Search Committee or the Regulatory Biochemistry Search Committee, c/o Mr. Jeff Schaub, University of Minnesota, Department of Biochemistry, Molecular Biology and Biophysics, 6-155 Jackson Hall, 321 Church Street S.E., Minneapolis, MN 55455** or as an attachment to **schaub@cbs.umn.edu**. For more information, please consult: **http://cbs.umn.edu/BMBB**.

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

University of Rochester Medical Center
Department of Pharmacology and Physiology

Post-doctoral training in ion channel physiology and calcium signaling

Multiple postdoctoral research opportunities exist within a highly interactive group of scientists utilizing multidisciplinary approaches to study ion channel physiology and intracellular calcium signaling (http://www.urmc.rochester.edu/phph/faculty). Candidates with relevant research background and a PhD or MD degree may apply. Specific research opportunities include:

Dr. Robert Dirksen: Calcium channels, ryanodine receptors, and excitation-contraction coupling in normal and diseased skeletal muscle (*PNAS* **98**: 4215; *J Gen Physiol* **118**: 277). Experience in electrophysiology and/or measurements of intracellular calcium required.

Drs. James Melvin /Ted Begenisich: Electrophysiology and gene manipulation techniques applied to investigate the role of ion channels in fluid secretion (*Am J Physiol* **279**: C2052). Experience in electrophysiology required; experience with epithelial cells a plus. Position may be at the Research Faculty level.

Dr. Camillo Peracchia: Direct cell-to-cell communication via gap junction channels. Research focuses on the molecular mechanisms that regulate gap junction channel permeability with a recent focus on calmodulin (*J Biol Chem* **275**: 26220). Experience with patch clamp and/or molecular biology required.

Dr. Trevor Shuttleworth: Characterization and regulation of the novel arachidonic acid-regulated "ARC" channels responsible for the receptor-activated entry of Ca^{2+} (*J Biol Chem. 275: 9114 and 276: 35676*). Two positions available (one may be at the Research Assistant Professor level). Experience with patch clamp techniques required.

Dr. SheyShing Sheu: Mitochondrial Ca^{2+} signaling in normal and diseased heart, excitotoxicity of striatal neuron, and oxidative stress-induced spinal cord injury (*J Biol Chem* **276**: 21482; *J Physiol* **536**:387).

Dr. Jay Yang: Virus-mediated $GABA_A$ receptor engineering, receptor trafficking, and regulation of neuronal excitability (*J Neurosci 21: 3419; J Neurophysiol 86: in press*). Experience with patch clamp and molecular biology required.

Dr. David Yule: The role of inositol 1,4,5 triphosphate and ryanodine receptors in defining $[Ca^{2+}]_i$ signals in non-excitable cells (*J Gen Physiol* **116**: 547; *J Biol Chem* **275**: 33704). Experience in electrophysiology and fluorescence techniques required.

Salary is determined by the successful candidate's experience. Interested applicants should directly contact the Faculty at their e-mail address (first name_last name@urmc.rochester.edu) with curriculum vitae, summary of past accomplishments and the names of three references.

The University of Rochester Medical Center is an Affirmative Action and Equal Opportunity Employer and Educator.

POSITIONS OPEN

EVOLUTIONARY MOLECULAR BIOLOGIST
Wheaton College, Norton, Massachusetts

The Biology Department of Wheaton College invites applicants for a tenure-track **ASSISTANT PROFESSORSHIP** in molecular biology to teach in the area of evolution, molecular biology, and chordate anatomy and courses for majors and nonmajors in the candidate's area of interest. Ph.D. is required. The successful candidate must have a strong commitment to teaching and involving undergraduates in research. Use of molecular techniques in research is essential. This is a new addition to the Department and the candidate will have input into the design of his/her own research and teaching space in a new facility. Wheaton College is an independent, selective liberal arts college with 1,500 undergraduates located equidistant between Boston and Woods Hole, Massachusetts, and Providence, Rhode Island. The successful candidate will contribute to a vibrant department that supports majors in biology, biochemistry, environmental science, and psychobiology. More information is avaliable at the Biology Department **website: http://www2.wheatonma.edu/Academic/AcademicDept/Biology/**. Send cover letter, curriculum vitae, and statement of teaching interests and research goals as well as letters from three references by 1 December 2001 to: **Dr. Scott Shumway, Chair, Department of Biology, Wheaton College, Norton, MA 02766**. *Wheaton College seeks educational excellence through diversity and strongly encourages applications from women and men from minority groups.*

ASSISTANT PROFESSOR ABIOTIC STRESS

The Department of Horticultural Sciences, Texas A&M University, invites applications for a 12-month, tenure-track (50% research, 50% teaching) faculty position focusing on abiotic stress biology. This position will link applied horticultural crop improvement and basic plant genomics/gene discovery programs. The individual is expected to participate in the undergraduate and graduate teaching programs of the Department and/or interdisciplinary faculties (e.g., Molecular and Environmental Plant Sciences). For more information about the Department and its facilities, see **website: http://aggie-horticulture.tamu.edu** and, for MEPS, **website: http://soilcrop.tamu.edu/meps/**. Individuals experienced in research on water, salinity, or heat stress resistance are particularly encouraged to apply. Applicants should send curriculum vitae, statement of research interests, academic transcripts, and have three letters of reference sent to: **Dr. Marla Binzel, Department of Horticultural Sciences, Texas A&M University, 2133 TAMU, College Station, TX 77843-2133. E-mail: m-binzel@tamu.edu**. Review of applications will begin December 15, 2001, and will continue until the position is filled. *Texas A&M University is an Affirmative Action/Equal Opportunity Employer committed to diversity.*

ASSISTANT PROFESSOR BIOLOGY DEPARTMENT
State University of New York at Oswego

Full-time, tenure-track, undergraduate teaching position beginning fall semester 2002. Ph.D. required. Teaching is expected in zoo biology, general biology, and one or more of the following areas: population biology, conservation biology, computer applications in biology, and applicant's specialty subject area. Responsibilities include developing and supervising internships in zoo biology as part of the B.S. in zoology. Successful applicant is expected to develop a research program to include undergraduate students as researchers. A letter of application, curriculum vitae, transcripts, and three letters of recommendation must be sent to: **Dr. Emily Oaks, Chair, Biology Department, SUNY Oswego, Oswego, NY 13126**. Review of applications will begin December 3, 2001, and will continue until the position is filled. *SUNY Oswego is an Affirmative Action Employer.*

CANADA RESEARCH CHAIR CONDENSED MATTER PHYSICS
Department of Physics
University of Alberta

The Department of Physics at the University of Alberta (**website: http://www.phys.ualberta.ca**) invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level in the area of experimental or theoretical condensed matter physics. The junior Canada Research Chair (**website: http://www.chairs.gc.ca**) is subject to approval. We are especially interested in candidates with a Ph.D. and whose research involves nanoscale physics but we encourage applications from outstanding candidates in all subfields of condensed matter physics. Applicants should have the ability to establish a strong research program and be committed to undergraduate and graduate teaching. The Department has about 35 faculty with research interests in condensed matter physics, astrophysics, geophysics, and subatomic physics. Our condensed matter group emphasizes the physics of nanostructures and strongly correlated electronic systems. It includes well-equipped laboratories for ultrafast laser spectroscopy and scanning probe microscopy, ion implantation, electron microscopy, electron spin resonance, low-temperature physics, and high-temperature superconductivity. Extensive infrastructure for micro- and nanofabrication are available in the University of Alberta open access fabrication facilities (**website: http://www.ualberta.ca/~microfab**). Several PC clusters exist within the Department along with very large multiprocessor arrays within the University (**website: http://www.ualberta.ca/CNS/RESEARCH/**). Recent initiatives by the Governments of Alberta and Canada provide exceptional opportunities for additional funding to establish new research programs at the University of Alberta. See, for example, **website: http://www.gov.ab.ca/sra, website: http://www.icore.ca, website: http://www.gov.ab.ca/is/ahfser,** and **website: http://www.innovation.ca** for further information. The application should include curriculum vitae, a research plan, and a description of teaching experience and interests. The applicant must also arrange to have at least three confidential letters of reference sent to the address below on or before January 1, 2002. Consideration of applications will begin on December 1, 2001. The suggested starting date is July 1, 2002. **Condensed Matter Search and Selection Committee, Dr. John Samson, Chair, Department of Physics, University of Alberta, 412 Avadh Bhatia Physics Laboratory, Edmonton, Alberta T6G 2J1 Canada. FAX: 780-492-0714; e-mail: dept@phys.ualberta.ca**. *The records arising from this competition will be managed in accordance with provisions of the Alberta Freedom of Information and Protection of Privacy Act (FOIPP). The University of Alberta hires on the basis of merit. We are committed to the principle of Equity in Employment. We welcome diversity and encourage applications from all qualified women and men including persons with disabilities, members of visible minorities, and aboriginal persons. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. If suitable Canadian citizens and permanent residents cannot be found, other individuals will be considered.*

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION: A position is available immediately in mechanistic enzymology to study both the catalytic and regulatory mechanisms of aspartate transcarbamoylase. Cryocrystallography techniques will be used to determine the structures of enzyme-substrate and enzyme-substrate analog complexes in order to probe the catalytic mechanism. Molecular biology techniques will be utilized to create mutant and hybrid enzymes in order to probe the regulatory mechanism. Candidates with a Ph.D. degree in crystallography that want to extend their experience to other areas are particularly encouraged to apply. Send curriculum vitae and names and telephone numbers of three references to: **Dr. Evan R. Kantrowitz, Department of Chemistry, Boston College, Chestnut Hill, MA 02467. E-mail: evan.kantrowitz@bc.edu**.

GROSS ANATOMIST
University of Missouri–Kansas City
School of Medicine

Gross Anatomist with Ph.D. or M.D. for a nontenure-track **FACULTY POSITION** at an academic rank consistent with the applicant's qualifications in a growing multidisciplinary department that rewards excellence in teaching. Qualified individuals may also have additional experience in neuroanatomy, histology, or physiology but the successful candidate will have demonstrated primary experience as a Gross Anatomist. Responsibilities shared with other Anatomists include course coordination and contributions to lecture and laboratory-based anatomy courses for medical and dental students. Although research is not emphasized, opportunities exist and the research interests of Anatomists in the Department include physical anthropology, vertebrate paleontology, and craniodental development and evolution. Salary is contingent upon qualifications. Applications will be accepted until the position is filled.

Please submit curriculum vitae with the names, telephone numbers, and postal and e-mail addresses of three individuals who can testify to your teaching skills to:

Ted Beringer, Ph.D.
Chairman, Gross Anatomist Search Committee
UMKC Medical School
2411 Holmes Street
Kansas City, MO 64108
E-mail: beringert@umkc.edu

UMKC is an Affirmative Action/Equal Opportunity Institution.

BIOCHEMISTRY FACULTY POSITION

Cell and molecular biosciences have recently been selected as priority research areas at Auburn University. Consequently, a tenure-track position in biochemistry within the Department of Chemistry is available starting fall 2002. Although we are particularly interested in persons with expertise in biomacromolecular X-ray crystallography, we welcome applications from individuals with research interests in any area of biochemistry. The successful candidate will be expected to develop a vigorous, externally funded research program and will be required to teach primarily in the areas of biochemistry/metabolism at the undergraduate and graduate levels.

A Ph.D. in biochemistry or chemistry and at least one year of postdoctoral experience are required. Applicants should submit curriculum vitae, statements of research plans and teaching philosophy, and have three letters of recommendation sent to: **J. H. Hargis, Department of Chemistry, Auburn University, Auburn, AL 36849-5312**. Review of applications will begin November 1, 2001, and will continue until the position is filled. *Auburn University is an Affirmative Action/Equal Opportunity Employer. Minorities and women are encouraged to apply.*

FACULTY POSITION PHYSIOLOGY

The Department of Physiology and Pharmacology at Des Moines University–Osteopathic Medical Center seeks applicants for the position of **ASSISTANT** or **ASSOCIATE PROFESSOR** of physiology. The successful candidate is expected to develop an extramurally funded research program. Primary teaching responsibilities include teaching medical, podiatric, and allied health students. Submit a letter of application, curriculum vitae, statement of research interests and educational philosophy, and contact information for letters of reference to:

Terriann Crisp, Ph.D.
Professor and Chair
Department of Physiology and Pharmacology
Des Moines University–Osteopathic Medical Center
3200 Grand Avenue
Des Moines, IA 50312-4198

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mayo

MAYO CLINIC
Postdoctoral Training in Cardiovascular Research
NIH-Training Grant Positions
Foundation-Supported Positions

Opportunities exist to study cardiovascular biology and disease in the laboratory of an NIH-funded investigator at the Mayo Clinic in Rochester, MN. Candidates with an M.D. or Ph.D. may apply. American citizenship or permanent residency is required for the NIH-Training Grant positions. Outstanding foreign applicants with previous research experience will be considered for Foundation-Supported positions. The Faculty and research areas include:

J.C. Burnett, Jr., MD – The natriuretic peptides and other humoral factors in heart failure and atherosclerosis
M.M. Redfield, MD – Diastolic heart failure and humoral control of ventricular function in hypertension and heart failure
R.D. Simari, MD – Vascular biology and gene transfer for cardiovascular diseases
A. Lerman, MD – Endothelial function, coronary physiology and imaging
T.M. Olson, MD - Genetic basis of cardiovascular diseases
V.L. Roger, MD - Population studies of coronary disease
R.J. Rodeheffer, MD – Epidemiology of heart failure
A. Terzic, MD, PhD – Ion channel biology, bioenergetics and nuclear transport in the heart
V.K. Somers, MD, PhD – Neurohumoral, vascular and metabolic mechanisms linking normal and disordered sleep to cardiac and vascular disease

Salary is determined by the successful candidate's experience. An attractive benefit package is offered. Mayo Clinic Rochester is a non-profit, physician led, clinical practice with education and research in a unified multi-campus system.

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

M.M. Redfield, MD
Cardiorenal Laboratory
Guggenheim 9
Mayo Clinic
200 First Street, SW
Rochester, MN 55905
See: http://www.mayo.edu/research/

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

mayo

Gene Therapy Faculty Position
Molecular Medicine Program
Rochester, Minnesota USA

Mayo Clinic in Rochester, Minnesota has an established Molecular Medicine Program with several groups working on gene therapy using different viral systems. The program, under the direction of Dr. Stephen J. Russell, is seeking a tenure track individual that can develop and maintain a competitive peer-reviewed research program focused on high capacity adenovirus vectors.

The Molecular Medicine Program (http://www.mayo.edu/research/mmp/) was established at Mayo Clinic with the mission of integrating relevant basic science and clinical investigation in the areas of gene therapy and virology, and applying this to patient care in a timely and responsible manner. Mayo Clinic's research infrastructure and clinical strengths offer unparalleled opportunities to collaborate with clinician investigators on translating basic discoveries into the clinical setting. A competitive compensation and benefits package is available.

Mayo Clinic (http://www.mayo.edu/) is a not-for-profit organization that integrates research with clinical practice and education in a multi-campus environment. Rochester, Minnesota is approximately one hour from the Minneapolis/St. Paul metropolitan area. Rochester (http://www.rochestermn.com/) has excellent schools, a cosmopolitan cultural atmosphere, growing economy, clean environment, and has been consistently rated one of the best places to live in the USA by Money Magazine.

Applications will be accepted until the position is filled, but preference will be given to applications received by December 7, 2001. Applicants for this position should submit a cover letter expressing their interest and qualifications, along with their Curriculum Vitae, to:

Stephen J. Russell, M.D., Ph.D.
Chair, Molecular Medicine Program Search Committee
Mayo Clinic
Guggenheim 18
200 First Street SW
Rochester, MN 55905
email: russell.stephen@mayo.edu
Fax: (507) 284-8388

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UNIVERSITY OF WISCONSIN MADISON

Structural Biology at the Center for Eukaryotic Structural Genomics

The Center for Eukaryotic Structural Genomics (CESG) is an NIH-supported facility dedicated to the development and critical analysis of methods for high-throughput, proteome-scale, eukaryotic protein production, characterization and structure determination. Taking advantage of the benefits of the Arabidopsis thaliana model system, the CESG is intent on using X-ray crystallography and NMR spectroscopy to elucidate the structures of proteins encoded by its genome. The development of a comprehensive laboratory information technology system designed to organize the data generated by the Center is an integral part of the CESG agenda. The CESG currently has openings for scientists at all levels and in a wide variety of fields including:

Molecular Biology and Protein Production – scientists are needed to develop and implement methods for high throughput protein production. Positions are available at the supervisory, PhD, and MS/BS levels.
X-ray Crystallography – PhD level researchers are needed to acquire and analyze X-ray crystallography data. These positions will focus on solving the structure of proteins with novel folds or proteins associated with novel or unexpected functions. A technician level position is also available in this area.
Protein NMR – openings are available for PhD level scientists with experience in using NMR spectroscopy to determine 3D structures of proteins and in developing novel technology for solution structure determinations. The National Magnetic Resonance Facility at Madison (NMRFAM) is a superbly equipped facility in which to pursue questions of protein structure.
Information Technology – we are seeking a computer systems administrator and programmer analysts. Knowledge of relational databases and a variety of programming languages (including Java2, Fortran and/or C) is required. A basic knowledge of structural biology would be useful.

As a part of the Department of Biochemistry at the University of Wisconsin-Madison, the CESG is located in a rich scientific environment, ideal for motivated, creative individuals intent on exploring the diversity of protein structure. For more details on these positions, including how to apply, please visit our web site at **www.uwstructuralgenomics.org** or contact **Cheryl Adams** at **adams@biochem.wisc.edu**. Kindly mention CESG in all communications.

The University of Wisconsin-Madison is an Equal Opportunity/Affirmative Action Employer and especially encourages women and minorities to apply. Unless confidentiality is requested in writing, information regarding applicants must be released upon request. Finalists cannot be guaranteed confidentiality.

FACULTY POSITION
MOLECULAR GENETICS
DEPARTMENT OF GENETICS
North Carolina State University

The Department of Genetics at North Carolina State University seeks applications at the **ASSISTANT PROFESSOR** level for a tenure-track faculty position in molecular genetics. We seek an outstanding individual employing modern molecular techniques to explore fundamental biological problems using eukaryotic model organisms. Due to current staffing, preference will be given to candidates working with organisms other than *Drosophila*. Applicants should have a Ph.D.; postdoctoral experience; and clear evidence of significant productivity, creativity, and independence. Successful candidates will be expected to develop vigorous, extramurally funded research programs; participate in the training of Ph.D. candidates; and contribute to graduate and undergraduate teaching. Additional information is available at **website: http://www.cals.ncsu.edu/genetics/**.

Review of applications will begin November 30, 2001, and continue until the position is filled. Applicants should forward curriculum vitae, a brief statement of research and teaching interests, copies of key publications, and arrange for three letters of recommendation to be sent to:

Dr. Stephanie E. Curtis
Molecular Genetics Search Committee
Department of Genetics, Box 7614
North Carolina State University
Raleigh, NC 27695-7614
E-mail: securtis@ncsu.edu

NCSU is an Equal Opportunity/Affirmative Action Employer. Americans With Disabilities Act Accommodations: Jeffrey Hawley (e-mail: jeff_hawley@ncsu.edu; Telephone: 919-515-5727; FAX: 919-515-3355). In its commitment to diversity and Equity, NC State University seeks applications from women, minorities, and persons with disabilities.

FACULTY POSITION
Pharmacology/Toxicology
Ponce School of Medicine

The Department of Pharmacology and Toxicology at the Ponce School of Medicine is recruiting a faculty member, rank dependent on qualifications. Candidates should have a Ph.D. or equivalent degree, postdoctoral training, and a commitment to quality teaching of graduate and medical students. Applicants must show evidence of research productivity and demonstrate the potential to obtain extramural research funding including NIH funding. Specialty fields of our department include toxicology, cancer, CNS pharmacology, diabetes, and HIV. We are located in Ponce, Puerto Rico (**website: http://www.psm.edu**), and accredited by the Liaison Committee on Medical Education sponsored by the Council on Medical Education of the American Medical Association and the Association of American Medical Colleges. Candidates should send curriculum vitae, a brief prospectus, and three references to: **Jaime Matta, Ph.D., Chair, Department of Pharmacology and Toxicology, P.O. Box 7004, Ponce School of Medicine, Ponce, PR 00732**. Applications should be received before November 30, 2001.

BIOLOGICAL OCEANOGRAPHERS

We seek two Ph.D.-level Biological Oceanographers for nine-month, tenure-track appointments at the **ASSISTANT PROFESSOR** level to begin as soon as August 2002. The positions involve research, teaching (primarily at the graduate level), and service. Area of specialization is open, but we are particularly interested in a Microbial Ecologist and a person who studies the role of nekton in ecological processes. Send a letter of application; curriculum vitae; and the names, addresses, and e-mail addresses of three references to: **Biological Oceanography Search Committee, Department of Oceanography, Florida State University, Tallahassee, FL 32306**. Application review will begin immediately. *The University is an Equal Opportunity/Access/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR
Department of Chemistry
University of Minnesota Duluth

The Department of Chemistry is seeking candidates for a tenure-track Assistant Professor position in the area of biochemistry and molecular biology effective September 1, 2002. The successful candidate will contribute effectively to departmental teaching and advising responsibilities at the undergraduate and graduate levels, develop an externally funded research program in biochemistry and molecular biology involving undergraduate and graduate students, and fulfill normal service obligations. Excellent possibilities exist for research collaboration with colleagues in such areas as engineering, the Medical School, the Natural Resources Research Institute, the Large Lakes Observatory, and the U.S. EPA Research Laboratory. Complete applications will be reviewed starting December 17, 2001, and will be accepted until the position is filled. A Ph.D. in biochemistry, chemistry, or related field and postdoctoral experience are required. Send an application letter, curriculum vitae, a short research proposal, and have three letters of recommendation sent to:

Dr. Robert M. Carlson
Chair, Search Committee
Department of Chemistry
University of Minnesota Duluth
1039 University Drive
Duluth, MN 55812
Website: http://www.d.umn.edu/chem
E-mail: rcarlson@d.umn.edu
FAX: 218-726-7394

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

ASSISTANT PROFESSOR
Neurobiology

The Department of Molecular, Cellular, and Developmental Biology (MCDB) at the University of Michigan seeks candidates for the position of Assistant Professor in the area of neurobiology. We are particularly interested in individuals who use cellular and molecular methods to address the way neuronal circuits process information. The specific research question under study is open. We expect to consider candidates who study sensory processing, motor programming, and the circuits involved in learning and memory. MCDB includes a successful group of Neurobiologists who are also part of a larger community of over 90 neuroscience faculty on the Ann Arbor campus, and all participate in a large interdepartmental graduate program as well as the graduate program of the Department. The successful candidate will, in addition to establishing a research program, be expected to participate in undergraduate and graduate teaching. The deadline for application for this position is December 10, 2001. The application should include a cover letter, curriculum vitae, and a statement of previous and future research and should be sent to: **Neurobiology Search, MCDB, Kraus Natural Science Building, 830 North University Avenue, Ann Arbor, MI 48109-1048**. Candidate should be also arrange for three letters of reference to be sent to the same address.

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

ASSISTANT/ASSOCIATE PROFESSOR
GROSS ANATOMY AND EMBRYOLOGY
Medical College of Georgia

Applications are invited for a full-time or part-time faculty position at Assistant/Associate Professor level to teach gross anatomy and/or embryology. Candidates should have at least two years of experience teaching medical students in gross anatomy and embryology. Submit curriculum vitae to: **Adarsh K. Gulati, Ph.D., Chair, Search Committee, Department of Cellular Biology and Anatomy, Medical College of Georgia, Augusta, GA 30912-2000**. *The Medical College of Georgia is an Affirmative Action/Equal Opportunity Educational Institution.*

POSITIONS OPEN

DEPARTMENT HEAD
Department of Microbiology, Pathology, and Parasitology
North Carolina State University

The College of Veterinary Medicine at North Carolina State University invites applications for the position of Department Head in the Department of Microbiology, Pathology, and Parasitology. North Carolina State University is located near the Research Triangle Park and other major universities, providing an outstanding environment for academic, government, and industry collaborations. The College is currently undergoing a major expansion with a new 104,000-square-foot research building to be completed by May 2005. The MPP Department has 30 faculty members with research programs focused on emerging and recurring diseases, environmental and toxicologic pathology, and genomic sciences. Disciplines represented in the Department include bacteriology, immunology, mycology, parasitology, pathology, and virology. Departmental faculty also provide instruction at the DVM, undergraduate, graduate, and postgraduate levels including residency training and supervise and provide diagnostic service to the Veterinary Teaching Hospital.

Candidates must have a Ph.D. and/or D.V.M. or equivalent degree and experience in an academic veterinary environment in one of the disciplines represented in the Department. In addition to providing dynamic leadership to the Department, the Department Head is also expected to continue a productive academic career either in research, teaching, or service.

Review of applications will begin December 1, 2001, and will continue until the position is filled. Applicants should submit curriculum vitae, a statement describing administrative philosophy and future academic goals, and the names and addresses of three references to: **Dr. Gregory J. Cole, Chair, MPP Department Head Search Committee, Department of Anatomy, Physiological Sciences, and Radiology, College of Veterinary Medicine, North Carolina State University, 4700 Hillsborough Street, Raleigh, NC 27606**. Additional information may be obtained from **Dr. Cole; Telephone: 919-513-6220; e-mail: gregory_cole@ncsu.edu**. *Affirmative Action/Equal Opportunity Employer. ADA accommodation: Alice Kessler; e-mail: alice_kessler@ncsu.edu; Telephone: 919-513-6291; FAX: 919-513-6452; TDD: 919-515-9617.*

SENIOR FACULTY POSITIONS
IN THE LIFE SCIENCES
University of Michigan

The University of Michigan is soliciting applications for senior faculty positions (**ASSOCIATE PROFESSOR, PROFESSOR**) with an appointment held jointly in two departments, one in the School of Medicine and the other in the College of Literature, Science, and the Arts (including life science-related research in chemistry, physics, and mathematics). These appointments are part of a university-wide initiative to expand research in the life sciences, broadly construed. Successful candidates are expected to have an established, outstanding research program and to participate in the teaching activities of both units. A highly competitive salary and start-up funds are available to support these positions. The Search Committee will begin to review applications on December 1, 2001. Applicants should submit curriculum vitae, a two-page summary of past research accomplishments and future research interests, and a statement of which departments are of interest to: **Carol A. Fierke** and **Dennis J. Thiele, Search Committee Co-Chairs, University of Michigan Medical School, Office of the Dean, Attention: Stephanie Campbell, 4101 Medical Science Building I/Box 0624, Ann Arbor, MI 48109-0624**. For information on the partner departments within the University of Michigan Medical School and the College of Literature, Science, and the Arts, see **website: http://www.lifesciences.umich.edu/research/position.html**. *The University of Michigan is an Affirmative Action/Equal Opportunity Employer.*

SCHOOL OF MEDICINE
NEW YORK UNIVERSITY

Assistant Professor of Clinical Pharmacology

The newly formed Division of Clinical Pharmacology of the Department of Medicine at New York University School of Medicine is recruiting junior faculty for a tenure track position. Individuals with an interest in establishing independent programs in translational and patient oriented research are encouraged to apply. In addition to the facilities of the Department of Medicine, the General Clinical Research Center at NYU School of Medicine, one of the oldest in the United States, offers strong support for patient oriented research. Candidates should have an MD or MD/PhD. Applicants should send a letter of interest and CV to:

Bruce N. Cronstein, MD
Director, Division of Clinical Pharmacology
Department of Medicine
NYU School of Medicine
550 First Ave. NB16N1
New York, NY 10016
Email: cronsb01@med.nyu.edu

NYU School of Medicine is an Affirmative Action, Equal Opportunity Employer.

The Cleveland Clinic Foundation

Faculty Position in the Department of Neurosciences Department of Neurosciences Lerner Research Institute Cleveland Clinic Foundation

The Department of Neurosciences seeks outstanding candidates to fill several Faculty positions. While the search is focused at the Assistant Professor level, qualified Associate or Full Professor candidates will be considered. Applicants must have a Ph.D. and /or M.D. and an active, independent research program that utilizes state-of-the-art techniques to investigate cellular and molecular aspects of neurobiology. Candidates with research programs in glial development, cerebellar or cortical development, synapse function, cell signaling, or pathogenesis of human CNS disease are encouraged to apply. Excellent departmental facilities and generous start-up funds are available.

The Department of Neurosciences and the Lerner Research Institute (www.lerner.ccf.org) are undergoing rapid growth. The Department of Neurosciences has strong programs in developmental neurobiology, excitable membranes, and cell signaling. Opportunities for interactions with Clinical Neurosciences Departments are plentiful.

Candidates should submit a curriculum vitae, a list of publications, a brief statement of research interests, and three letters of reference to:

Bruce D. Trapp, Ph.D
Department of Neurosciences NC30
The Cleveland Clinic Foundation
9500 Euclid Ave
Cleveland, OH 44195

AA/EOE

Aurora Biosciences is a leader in applying innovative bioassay technologies and advanced instrumentation to make the process for discovering new medicines smarter and faster than ever before. Behind every one of our solutions is a close-knit group of talented, knowledgeable and creative professionals committed to improving human health.

GROUP LEADER, DISCOVERY BIOLOGY

We seek an energetic, creative and effective person to lead drug discovery efforts in the area of ion channels and transporters. Using Aurora's world-leading proprietary assay and screening technologies, you will be responsible for leading a team in the rapid identification and characterization of new small molecule leads for a variety of therapeutically relevant ion channel targets. A PhD and 5 years postdoctoral experience in a relevant scientific area are required. Demonstrated success in assay development and drug discovery for ion transport targets, knowledge of the relevance of ion channel targets in disease, and molecular pharmacology experience are required. Job #0178TG

SCIENTIST II, ION CHANNELS

As a PhD with 1-2 years experience in the ion transport field, the candidate will design and conduct experiments to determine the mechanisms of drug action on ion transport proteins. Additional responsibilities will involve identifying novel ion transport drug targets, validating these targets *in vitro*, and developing high-throughput screening assays. The ideal candidate will have a PhD with 2-5 years postgraduate experience and several years experience in ion channels, transport proteins, or receptors in the field of neuroscience. Knowledge of ion channels, transport proteins and/or ion pumps and their roles in physiology and disease is needed, preferably with experience in assay development and high throughput screening. Background in 2 or more higher level systems, such as brain slice electrophysiology, recording from primary neurons, cardiac myocytes, smooth muscle cells, or *in vivo* electrophysiology, is desired. Those with experience in CFTR biology and cystic fibrosis are particularly encouraged to apply. Job #0222RN

SCREENING SCIENTIST

Working with a team of biologists and chemists, apply your creative talents on discovery projects to identify and discover new lead molecules for ion channel targets. This will involve conducting high-throughput screening (HTS) projects in cell-based assays using proprietary fluorescent voltage-sensor membrane potential probes, fluorescent ion-flux probes and fluorescent proteins, with Aurora VIPR™ instrumentation technology. Other responsibilities will involve optimizing automated instrumentation and robotics, transferring assays to automated systems, troubleshooting issues that arise from this transfer process, processing data and tracking projects using proprietary data analysis, and visualization and database tools. The ideal candidate will have a PhD or equivalent work experience in the biological or physical sciences and/or in laboratory automation. Mechanical aptitude and computer programming familiarity will be helpful. Job #0190TK

RESEARCH ASSOCIATE/ SR. RESEARCH ASSOCIATE

We will rely on you to support research performed by the Receptors Group, including cloning of cDNAs and developing cell-based assays for screening. The ideal candidate will have a BS degree (MS preferred) in a scientific discipline with a minimum 1 year full-time research experience in an academic or industrial laboratory. Knowledge of PCR, mammalian cell culture, transfection techniques, and generation of recombinant cell lines is preferred. Hands-on experience with cell-based assay development and analysis for HTS, pharmacology of receptors, or fluorescence technologies will be valued. Job #0214MG

In addition to competitive salary and benefits, we offer equity participation via an ISO and Stock Purchase Program. For more background on our company, visit our website at **www.aurorabiosciences.com**. Then email your resume and letter, referencing Job#, to **hr@aurorabio.com**. Or fax to (858) 404-6720.

Aurora™
Biosciences Corporation

POSITIONS OPEN

CHAIR AND PROFESSOR DEPARTMENT OF BIOLOGICAL SCIENCES SUNY Brockport

The Department of Biological Sciences invites applications for a Chair and Professor. Foremost, the Department is seeking an energetic, visionary Chair who will develop and enhance a balanced undergraduate major and Master's degree program. Required: Ph.D. in biology or related field; strong teaching, scholarship, grant activity, and administrative skills; and ability to work collegially in culturally diverse environment. The disciplinary expertise of the candidates is a secondary consideration. In August 2001 the Department moved into a newly renovated building ($12 million) with state-of-the-art teaching and research facilities. Currently, the Department has strengths in environmental sciences, cell/molecular biology, and vertebrate biology.

Submit letter of application; résumé; transcript showing highest earned degree; three letters of reference; and brief statements of leadership philosophy, teaching philosophy, research plans, and equipment requirements.

Salary is competitive. Starting date is August 2002. Beginning review date for applications is December 15, 2001. Applications will be accepted until January 15, 2002, or until the position is filled.

Send application materials to: **Mr. Terry Hooper, Faculty/Staff Recruitment Office, SUNY College at Brockport, 409 Allen Administration Building, 350 New Campus Drive, Brockport, NY 14420-2929**. *Affirmative Action/Equal Opportunity Employer.*

FACULTY POSITION MOLECULAR GEOBIOLOGY

Washington University in St. Louis, Missouri, announces a tenure-track position at the **ASSISTANT PROFESSOR** level in molecular geobiology to begin in fall 2002. Under special circumstances, outstanding candidates may be considered at a higher level. We seek to build on our existing program in microbial geochemistry and are looking for dynamic, creative applicants who use modern molecular biology techniques to investigate microorganisms and microbial processes in natural geologic systems. Areas of interest include but are not limited to microbial ecology, investigations of modern and ancient environments using biomarkers, the subsurface biosphere, and astrobiology. Candidates should demonstrate or show promise of excellence in both teaching and research and must have been awarded a Ph.D. at time of appointment. Send résumé, statement of future research interest, and names and contact information for at least four references to: **Jan P. Amend, Search Committee Co-Chair, Department of Earth and Planetary Sciences, Washington University, Campus Box 1169, One Brookings Drive, St. Louis, MO 63130. E-mail: mg-facsearch@levee.wustl.edu**. Consideration of applicants will begin on December 31, 2001, and continue until the position is filled. *Equal Opportunity/Affirmative Action Employer. Employment Eligibility verification required upon Employment.*

POSTDOCTORAL POSITION CENTER FOR CELL AND GENE THERAPY Baylor College of Medicine

Postdoctoral position available immediately to investigate adult hematopoietic and other stem cells. See **website:http://www.bcm.tmc.edu/genetherapy/goodell/**. Experience in molecular biology and flow cytometry is desirable, but other highly motivated individuals are encouraged to apply. Candidate must be a recent or graduating Ph.D. in molecular/cell biology, biochemistry, physiology, or related fields. Salary is competitive. Send curriculum vitae and names and contact numbers of three references to: **Dr. Margaret A. Goodell, Center for Cell and Gene Therapy, Baylor College of Medicine, One Baylor Plaza, BCM 505, Houston, TX 77030. FAX: 713-798-1230; e-mail: goodell@bcm.tmc.edu**.

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

POSITIONS OPEN

POSTDOCTORAL POSITION

We are seeking motivated individuals to join in a project to study the molecular mechanisms underlying asthma. The project will be jointly conducted in the laboratories of **Dr. Sankar Ghosh** and **Dr. Kim Bottomly**. The project will study the effect of modulating the expression of cytokines such as IL−4, IL−5, IL−9, and IL−13 in the overall disease process. Candidates should be ambitious with a record of productivity and research publications. Recent graduates with experience in molecular biology/genetics and a background in immunology will be preferred. Please send your curriculum vitae and three letters of recommendation to **e-mail: debra.gilhuly@yale.edu** and include postdoctoral position in the subject line.

ASSISTANT OR ASSOCIATE PROFESSOR MICROBIAL BIOLOGY

The Department of Plant and Microbial Biology at the University of California, Berkeley, has an opening for an Assistant Professor (tenure track) or Associate Professor (tenured) position (nine-month appointment) starting July 1, 2002. Applications are invited from outstanding individuals whose research focuses on study of the biology of bacteria or archaea. A variety of research approaches including molecular biology, physiology, biochemistry, and phylogenetics are appropriate. Teaching responsibilities will include a microbial biology lecture or laboratory course. The successful candidate, who will hold a faculty position in the University of California as well as an appointment in the Agricultural Experiment Station, is expected to establish a strong and independent research program. Microbial biology is a growing program on the Berkeley campus; expertise in this department **(website: http://plantbio.berkeley.edu/)** and elsewhere on campus offers unique collaborative potential in microbial physiology, genetics, genomics, pathology, ecology, and evolution. Applicants must have a Ph.D. degree and suitable postdoctoral or academic experience. Curriculum vitae; a statement of current and future research interests; a statement of teaching experience and/or goals; and names of three references should be sent by January 11, 2002, to:

Chair, Microbial Biology Search Committee
Department of Plant and Microbial Biology
111 Koshland Hall
University of California
Berkeley, CA 94720-3102

Applications submitted after the deadline will not be accepted. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

BIOCHEMISTRY/PROTEOMICS/GENOMICS

The Department of Chemistry at George Mason University is seeking a Biochemist for a tenure-track position at the **ASSISTANT PROFESSOR** level. The Department will consider applicants in all subdisciplines of biochemistry but a strong preference will be given to candidates who can complement an existing strength in genomics and proteomics. Candidates are expected to develop a vigorous research program with extramural funding and must have a commitment to excellence in undergraduate and graduate chemistry education. The Biochemist will reside in a newly established, interdisciplinary biosciences center at the Prince William Campus of GMU in Manassas, Virginia. Additional information is available at **website: http://www.gmu.edu/departments/chemistry**. Applicants should submit curriculum vitae; a statement of current and future research plans; and arrange for three letters of recommendation sent by December 15, 2001, to: **Faculty Search Committee, Department of Chemistry, MSN 3E2, George Mason University, 4400 University Drive, Fairfax, VA 22030**. *George Mason is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are particularly encouraged to apply.*

POSITIONS OPEN

FACULTY POSITIONS Department of Cell Biology Yale University School of Medicine

Applications are invited from outstanding candidates for newly created faculty positions in the Department of Cell Biology at Yale Medical School. Although preference will be given to applicants for **ASSISTANT PROFESSOR**, candidates at all ranks will be considered. The Department faculty is undergoing a significant expansion as part of a schoolwide initiative; our new faculty will therefore be recruited as part of an interdepartmental consortium aimed at further enhancing Yale's traditional commitment to cell biology. Traditionally strong in the area of membrane traffic, we seek excellent and creative faculty with interests in developing mechanistic, structural, biophysical, microscopic, or molecular approaches in any area of basic cell biology. This includes interfacing with other areas such as development, immunology, neurobiology, and human disease, especially cancer. Successful candidates will have access to exceptional infrastructural support covering a wide variety of research programs and scientific interests.

The candidate must hold an M.D. and/or Ph.D. degree(s). Curriculum vitae together with a brief statement of current and future research should be submitted by February 1, 2002. The application should include the names of three individuals who have agreed to send recommendation letters independently. Applications should be sent to:

Graham Warren
Chair of the Cell Biology Search Committee
Yale University School of Medicine
Department of Cell Biology
333 Cedar Street, P.O. Box 208002
New Haven, CT 06520-8002

Yale University is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION ENVIRONMENTAL STUDIES

Pacific Lutheran University invites applications for a combined tenure-track **ASSISTANT PROFESSOR** position in its environmental studies program and either its Geosciences or Biology Department. Central responsibilities: teach ES interdisciplinary methods course and introduction to environmental sciences; supervise ES senior projects; and teach other undergraduate courses in geosciences (preferably geographic information systems, Earth surficial processes, or low-temperature aqueous geochemistry) or in biology (microbial ecology).

Qualifications: Ph.D., active research program open to undergraduates, leadership in program development, highly excellent teaching. Pacific Lutheran University, near Seattle, Washington, and Mount Rainier, enrolls 3,400 students and has a mission of educating for lives of thoughtful inquiry, service, leadership, and care. It serves a diverse clientele. Send complete curriculum vitae, transcripts, statement of teaching philosophy, summary of plans for undergraduate research, and three recommendation letters to: **Search Committee, Environmental Studies Program, Pacific Lutheran University, Tacoma, WA 98447. Website: http://www.plu.edu/~envt/**. Application review begins December 1, 2001. *Pacific Lutheran University is a strong Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS

Available to study (1) molecular genetic mechanisms of prostate cancer progression and (2) growth factor networks in prostate cancer. NIH-supported program using proteomic approaches to study human tumors and model systems. Ph.D. in biochemistry or genetics and excellent communication skills are required. Send curriculum vitae and names of three references to: **Dr. Joy Ware, Department of Pathology, Virginia Commonwealth University, Richmond, VA 23298. E-mail: jlware@hsc.vcu.edu**.

UNIVERSITY OF MASSACHUSETTS MEDICAL SCHOOL

TENURE TRACK ASSISTANT AND ASSOCIATE Gastrointestinal Cancer

The Department of Medicine at the University of Massachusetts Medical School is recruiting individuals at the level of Assistant and Associate Professor on the tenure track. We are seeking to recruit a number of outstanding scientists working in the area of gastrointestinal cancer, and will consider both M.D.'s and Ph.D.'s with relevant postdoctoral research experience. Candidates with research interests in the areas of molecular genetics, cell biology, developmental biology, genomics and mouse models are especially encouraged to apply. Appropriate areas of study would include stomach cancer, colon cancer, pancreatic, esophageal or liver cancer. The appointee will hold appointments in both the Gastroenterology Division as well as the Cancer Center at UMass. We are committed to a major expansion of these divisions in a new state of the art 365,000 sq. ft. research building which has recently opened (Sept. 2001). The appointees will be expected to lead a vigorous independent research program and to participate effectively in undergraduate and graduate instructional activities.

Submit curriculum vitae, a list of publications, a short synopsis of research plans, and at least three letters of reference from scientists. These materials should be sent to: Timothy C. Wang, Chief, Gastroenterology Division, Department of Medicine, University of Massachusetts Medical School, New Research Building, Room 208, 364 Plantation Street, Worcester, MA 01605-2324.

We offer highly competitive salaries based on experience; an excellent benefit package including generous time-off policies, 13 paid holidays, paid continuing education, benefits for employees and family members, health and dental coverage.

UMASS.

Equal Opportunity/Affirmative Action Employer.

GLOBAL OPPORTUNITIES

Immunologist/ Clinical Immunologist Senior Scientist (2 positions)

Milk and Health Research Centre

PALMERSTON NORTH

We invite applications from well qualified Clinical Immunologists, and Nutritional Immunologists, with extensive research experience in human nutrition or related research, to join a specialist reseach team based in Palmerston North.
Please quote reference number: A897-01L
Closing Date: 16 November 2001.

For further information, please phone +64-6-350 5299 or visit: ***http://jobs.massey.ac.nz***

Applications can be made online at the above site, or can be sent to: Vacancies, Human Resources Section, Massey University, Private Bag 11 222, Palmerston North, New Zealand.

Massey University

Equality of opportunity is University policy

The University of Illinois at Urbana-Champaign School of Molecular and Cellular Biology Multiple Faculty Positions in Molecular and Cellular Biology

The School of Molecular and Cellular Biology at the University of Illinois at Urbana-Champaign invites applications for faculty positions in all areas of Molecular and Cellular Biology. This search is part of a multi-year recruitment program. Of particular interest this year are:

Genetics (especially Human Genetics)
Immunology
Neurobiology

Outstanding applicants in other areas of Cellular and Molecular Biology will also be considered.

These positions are full-time and tenure track in the departments of Biochemistry, Cell and Structural Biology, Microbiology, and Molecular and Integrative Physiology in the College of Liberal Arts and Sciences and in the College of Medicine. Although we anticipate most of these appointments will be made at the Assistant Professor level, applications for positions at the Associate and Full Professor levels will also be considered and highly qualified scientists at these levels are encouraged to apply. The starting date for these positions is August 2002. Appointment at the Assistant Professor level requires a doctoral degree, postdoctoral experience, and evidence of outstanding research potential. Appointees at this level will be expected to develop a vigorous, independently funded research program. Appointment at higher levels requires evidence of outstanding research accomplishments including extramural funding and national recognition. Applicants at all levels will be expected to contribute effectively to undergraduate/graduate teaching.

The University of Illinois at Urbana-Champaign has added significant faculty strength in the biological sciences over the last three years and we anticipate additional hires in these and related areas each year for the next several years. Successful candidates will be provided with excellent laboratory facilities, substantial start-up funds, and a salary commensurate with experience. The University of Illinois at Urbana-Champaign offers a highly interactive, interdisciplinary research environment and state-of-the-art research support facilities. Urbana-Champaign offers the residential advantages of a medium-sized university city, excellent cultural opportunities and easy access to Chicago and St. Louis. Information concerning the School of Molecular and Cellular Biology at the University of Illinois can be found at http://www.life.uiuc.edu/mcb/.

Applications should be submitted to: **School of Molecular and Cellular Biology, University of Illinois at Urbana-Champaign, 393 Morrill Hall, 505 S. Goodwin Ave., Urbana, IL 61801.** An application must include a curriculum vitae, with a complete list of publications and a concise summary of past research accomplishments and future plans. Please specify research area, identified above, in top right corner of cover letter. Please arrange to have four letters of recommendation sent to the same address.

Electronic submissions as pdf files are encouraged and should be sent to mcbsearch@life.uiuc.edu. To ensure full consideration, applications should be received by Dec. 3, 2001. Interviews may be conducted before the closing date but no hires will be made until after the search is closed.

The University of Illinois at Urbana-Champaign is an Affirmative Action, Equal Opportunity Employer.

POSITIONS OPEN

PLANT BIOTECHNOLOGY/ MOLECULAR BIOLOGY
Department of Biological Sciences

The Department of Biological Sciences, University of Alberta, invites applications for an **ASSISTANT PROFESSOR** (tenure-track) position in plant biotechnology or plant molecular biology to begin July 1, 2002. The candidate should have a strong record of research that makes use of current molecular tools to investigate the mechanistic basis of plant structure and/or function and demonstrate potential for excellence in teaching. The Department offers an exciting environment for collaboration. With this appointment, we are looking to build upon our strength in agricultural and forest biotechnology (see **website: http://www.biology.ualberta.ca**). Research excellence of our 75 faculty members and 275 graduate students is supported by exceptional infrastructure including a modern molecular biology service unit, advanced microscopy and imaging capabilities, extensive controlled-environment facilities, and analytical services. Candidates should submit curriculum vitae, one-page summaries of research plans and teaching interests, and reprints of their three most significant publications to: **Dr. Gregory J. Taylor, Chair, Department of Biological Sciences, University of Alberta, Edmonton, Alberta T5G 2E9 Canada. E-mail: positions@biology.ualberta.ca**. Applicants should also arrange for three reference letters to be submitted. Closing date: December 15, 2001. *The records arising from this competition will be managed in accordance with provisions of the Alberta Freedom of Information and Protection of Privacy Act (FOIPP). The University of Alberta hires on the basis of merit. We are committed to the principle of Equity in Employment. We welcome diversity and encourage applications from all qualified women and men including persons with disabilities, members of visible minorities, and aboriginal persons. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. If suitable Canadian citizens and permanent residents cannot be found, other individuals will be considered.*

ASSISTANT PROFESSOR
Soil Insect Ecology/Turf Entomology

Cornell University/New York State Agricultural Experiment Station, Geneva, New York. Interested candidates are asked to apply for this 12-month, tenure-track position (80% research, 20% extension) to develop a nationally recognized research program on the ecology and management of soil-dwelling insect pests of horticultural crops and of insects attacking turfgrass. Research should contribute to a general understanding of the ecology and population biology of soil insects, but much of the research should be driven by the need to solve relevant, real world insect management problems. Participation in and leadership of collaborative projects will be important. Extension component will consist of educational programs that contribute to an interdisciplinary turf extension program. Ability to secure external funding is required. A Ph.D. in a biological science with training and experience in entomology and research experience in a relevant area of specialization are required. Submit résumé, transcripts, statement of research interests, and names and addresses of three references to: **Dr. Jan Nyrop, Chair, Search Committee, Cornell University/NYSAES, Department of Entomology, Barton Laboratory, Geneva, NY 14456** by March 2, 2002. Further information may be viewed at **website: http://www.nysaes.cornell.edu/ent**. *Cornell University is an Affirmative Action/Equal Opportunity Employer.*

Two **POSTDOCTORAL POSITIONS** available to work on basic learning mechanisms in normal conditions and in neurodegenerative disorders. Synaptic transmission will be studied by neurophysiological (patch clamp, field potential) and molecular biological techniques. Contact: **Ottavio Arancio, M.D., Ph.D., Nathan Kline Institute (New York University), 140 Old Orangeburg Road, Orangeburg, NY 10962. E-mail: arancio@nki.rfmh.org**.

POSITIONS OPEN

ASSISTANT PROFESSOR ARTHROPOD BEHAVIOR/ NEUROBIOLOGY
University of California, Berkeley

The Division of Insect Biology, ESPM Department, invites applications for a tenure-track, nine-month appointment at the Assistant Professor level in any area of insect or terrestrial arthropod behavior (including ethology, behavioral genetics, or behavioral ecology) or neurobiology starting July 1, 2002. The successful applicant must have a Ph.D. in the biological sciences, an excellent record of scientific accomplishment, strong commitment to undergraduate and graduate teaching, and an interest in being part of a community of Insect Biologists.

Applicants should submit curriculum vitae, copies of recent publications, and statements of research and teaching interests and experience as well as having three letters of reference sent to:

Professor Wayne M. Getz, Chair
Behavior/Neurobiology Search Committee
ESPM, Division of Insect Biology
201 Wellman Hall
University of California
Berkeley, CA 94720-3112

The closing date for applications is January 4, 2002. The deadline for the letters of reference is January 18, 2002. *The University of California is an Equal Opportunity/ Affirmative Action Employer*

ASSISTANT/ASSOCIATE PROFESSOR BIOPHYSICS
Arizona State University

The Department of Physics and Astronomy at Arizona State University seeks to fill a tenure-track position at the Assistant or Associate Professor level in the area of biophysics or soft condensed matter physics closely related to biophysics. We welcome applications from candidates with research that strengthens existing programs on campus. Some areas of current emphasis include single molecule biophysics, molecular nanotechnology, and photosynthesis. Other research opportunities are opened by a newly formed Biomedical Institute. The successful candidate will be required to have a Doctorate in physics or a closely related discipline and teaching experience, research, and professional service appropriate to rank. Applicants must submit a letter of application, curriculum vitae, a research plan (containing a one-page summary) and arrange for three letters of reference to be sent to: **Stuart Lindsay, Chair, Biophysics Search Committee, Department of Physics and Astronomy, Arizona State University, P.O. Box 871504, Tempe, AZ 85287-1504**. The initial review of applications will begin on December 17, 2001. Subsequent applications will be reviewed every two weeks thereafter until the position is filled. The starting date is flexible and may be adjusted to accommodate funding constraints. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH FELLOWS GENE THERAPY
Gene Therapeutics Research Institute
Cedars-Sinai Medical Center

The Gene Therapeutics Research Institute is a state-of-the-art facility provided to establish a leading gene therapy center under the direction of **Drs. Pedro Lowenstein** and **Maria Castro**. We are now recruiting outstanding Postdoctoral Research Fellows. The areas of research include gene therapy for neurodegenerative diseases and intracranial tumors, viral vector development, and the immunology of gene transfer (*Nat. Med.* **5(11)**:1256, 1999; *PNAS* **97(13)**:7482, 2000; *Nat. Biotech.* **19:582**, 2001). Educational requirements are M.D. or Ph.D. with experience in vector construction, gene therapy models of disease, and/or immunology.

Apply to **e-mail: cindy.mizuno@cshs.org** or mail to: **Cedars-Sinai, 8723 Alden Drive, SSB110, Los Angeles, CA 90048. FAX: 310-423-8400**. *Cedars-Sinai welcomes and encourages diversity in the workplace.*

POSITIONS OPEN

ASSISTANT PROFESSOR BIOLOGY

The Department of Biology at Pacific Lutheran University invites applications for a tenure-track Assistant Professor position to begin 1 September 2002. The Ph.D. is required, and applicants must have a primary interest in teaching undergraduates. We encourage response from individuals trained in developmental biology or genetics or microbial ecology. The successful candidate initially will teach an upper-division course in one of these areas and will also participate in our introductory general biology sequence for biology majors with selected opportunities in other areas (including significant participation in one of many cross-disciplinary programs such as environmental studies and women's studies).

Please submit (no later than 15 December 2001) your curriculum vitae, undergraduate and graduate transcripts, a statement of your teaching philosophy (including mention of courses you might like to teach), a summary of your current research interests, and a general research plan appropriate for an undergraduate institution. Also arrange to have three letters of recommendation sent on your behalf. All materials should be sent to:

Tom Carlson, Chair
Department of Biology
Pacific Lutheran University
Tacoma, WA 98447

The Biology Department includes 13 faculty members. The University is a comprehensive institution of 3,400 students whose mission is to educate students for lives of thoughtful inquiry, service, leadership, and care. *Affirmative Action/Equal Opportunity Employer.*

DIRECTOR
University of Wisconsin System Women and Science and University of Wisconsin Oshkosh Science Outreach Programs

University of Wisconsin Oshkosh invites applications/nominations for an Administrator of the UW System Women and Science (WS) and the UW Oshkosh Science Outreach (SO) Programs. This is a continuing, full-time, 10-month position. The WS mission is to attract and retain women and minority students in science, mathematics, and engineering by promoting systemic change in science education. The Program, a 2001 recipient of a Hesburgh Certificate of Excellence, works regionally/nationally to increase the number of faculty knowledgeable about gender and learning issues. SO provides continuing education for teachers as well as hands-on science experiences for K–12 students to improve science instruction and accessibility. Required: Ph.D. in mathematics, science, or engineering; teaching experience; expertise in gender, race, and ethnicity issues in science. Preferred: success in obtaining extramural funds; outreach and/or administrative experience. Starting: 1 August 2002 or as soon thereafter as possible. Deadline: 7 December 2001. Contact: **Dr. Fran Garb; e-mail: garbf@uwosh.edu; Telephone: 920-424-7404**. Send application letter, curriculum vitae, three current letters of recommendation, transcripts to: **UWS Women and Science Program. UW Oshkosh, Oshkosh, WI 54901**. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION EMORY UNIVERSITY

An NIH-funded Postdoctoral position is available immediately in computational neuroscience (**website: http://www.ccnl.emory.edu**). This project will bridge computational models of neural systems to fMRI experiments. This is an outstanding opportunity for someone with neural network experience to expand into functional brain imaging. Please send curriculum vitae and the names of three references to: **Gregory S. Berns, M.D., Ph.D., Department of Psychiatry and Behavioral Sciences, Emory University School of Medicine, 1639 Pierce Drive, Suite 4000, Atlanta, GA 30322. E-mail: gberns@emory.edu**. *Emory University is an Equal Opportunity Employer.*

CHAIR OF MOLECULAR GENETICS
DIRECTOR OF THE CENTER
FOR GENETIC AND TRANSLATIONAL MEDICINE

The Albert Einstein College of Medicine invites applications and nominations for the dual positions of Professor and Chair of the Department of Molecular Genetics and Director of the new Michael F. Price Center for Genetic and Translational Medicine. The distinguished scientist selected for these positions will have the opportunity to recruit several faculty immediately for the Department and to guide the program planning and recruitment of faculty for the Center, to occupy a 160,000 square foot research building scheduled for completion in 2005.

The Department of Molecular Genetics, an outgrowth of the first Department of Genetics in a medical school, currently encompasses 18 laboratories studying yeast, flies, worms, mice and humans. A separately endowed Human Genetics Program, directed by the Chair, provides support for a DNA microarray facility, genotyping and a family genetics facility as well as pilot projects in human genetics.

Albert Einstein offers an extremely interactive environment with numerous, well-equipped core facilities. The presence of 750 medical students, 325 graduate students, and 340 postdoctoral fellows attests to its educational mission. Among US medical schools, Einstein ranks 5th in NIH funding to basic science departments.

The Price Center for Genetics and Translational Medicine will be a facility dedicated to interdisciplinary studies by faculty from many departments dedicated to basic biomedical and genomic science and its translation to clinical medicine. The new Center will facilitate collaborative programs with long established NIH-funded Centers dedicated to Cancer, Diabetes, the Liver, and Sickle Cell Disease, as well as the Kennedy Center for Mental Retardation Research and the General Clinical Research Center. The diversity of the populations served by the College of Medicine's hospital affiliates throughout New York City provides extraordinary opportunities for an imaginative and committed leader to enhance the well being of the human condition through genomic research and translational medicine.

Please send applications or nominations to: **Dominick Purpura, Dean, Albert Einstein College of Medicine, 312 Belfer, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461** EOE

ALBERT EINSTEIN COLLEGE OF MEDICINE

Advancing science, building careers

Endowed Chair of Cancer Research
Department of Otorhinolaryngology

TENURE-TRACK POSITION
CANCER GENETICIST

Applications are invited for the newly established Presbyterian Health Foundation Chair for Cancer Research in the Department of Otorhinolaryngology. We are seeking an individual at the **ASSISTANT** or **ASSOCIATE** level, with a PhD or MD degree, and who has an established research record in the genetic basis or cell biology of cancer with a preference for tumors of the head and neck.

The successful candidate will be expected to conduct independent research, with national funding, in a collaborative environment that interfaces basic, clinical and translational research, and to participate in graduate, as well as postgraduate, medical education. The position is an exceptional opportunity that includes salary support and generous start-up funds. The academic appointment will be on the tenure-track and commensurate with the candidate's qualifications.

A letter of interest, curriculum vitae (with e-mail address), and the names and addresses of three references should be sent to the Chair of the Search Committee: **Jesus E. Medina, MD, Paul and Ruth Jonas Professor and Chair, Department of Otorhinolaryngology, The University of Oklahoma Health Sciences Center, PO Box 26901, WP1360, Oklahoma City, OK 73190. Telephone: 405-271-5504.**

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

ENDOWED PROFESSORSHIP IN MICROBIAL PATHOGENESIS

The University of Missouri seeks applications for the Charles & Charlene McKee Professorship in Microbial Pathogenesis. This professorship offers a unique opportunity for a highly motivated investigator to contribute to a campus-wide, interdisciplinary microbial pathogenesis program. Specific opportunities are available for participation in joint programs between Veterinary Pathobiology (College of Veterinary Medicine) and Molecular Microbiology, and Immunology (School of Medicine): Program in Microbial Pathogenesis and Immunity and/or Advanced Vaccine Research for the Control and Prevention of Disease in Food Animals.

This position would be a full time faculty position to be filled at the tenured Associate Professor or Professor rank in the Department of Veterinary Pathobiology. The primary responsibilities of the McKee Professorship will be to conduct internationally recognized research on microbial pathogenesis related to food diseases of laboratory and/or food animals, molecular biology, molecular genetics, and food safety. Other faculty positions will be added in the department over the next three years through a legislative initiative termed Mission Enhancement. The philosophy of the Department is to encourage the development of intra and interdisciplinary research and teaching teams. The candidate is expected to contribute to professional or graduate student instruction in their specialty.

The successful candidate will be located in recently renovated, state-of-the-art laboratories and would have the opportunity for an adjunct appointment in Molecular Microbiology and Immunology in the School of Medicine.

Candidate should have an earned doctorate (DVM, MD, PhD, etc.), qualify at the academic rank of tenured Associate Professor or Professor and be committed to interdisciplinary research. Salary for this position is competitive and commensurate with experience. Applicants should send a letter of intent, curriculum vitae, summary of research accomplishments and future research directions, and the names of three references to: **Anne Chegwidden, Department of Veterinary Pathobiology, College of Veterinary Medicine, University of Missouri, Columbia, MO 65211. Phone 573-882-5034, fax 573-884-5414, or email bueningg@missouri.edu or chegwiddena@missouri.edu.**

Applications will continue to be reviewed until the position is filled. *The University of Missouri is an equal opportunity institution and complies with the guidelines of the Americans with Disabilities Act of 1990. If you have special needs as addressed by the ADA and need assistance with this or any portion of the application process, notify us at the above address or telephone number as soon as possible. Reasonable efforts will be made to accommodate your special needs.*

DIRECTOR OF MOLECULAR BIOLOGY, BIOCHEMISTRY, AND BIOINFORMATICS PROGRAM (MB3)

Applications are invited for the position of Director of MB3, an interdisciplinary, research-oriented undergraduate program at Towson University. The successful candidate will be expected to provide scientific and administrative leadership in advancing the development of the program; work effectively with external constituencies in academia, government, and industry; and obtain external funding to support the program's initiatives. Applicants should possess academic credentials and scientific experience that warrant a tenured **ASSOCIATE PROFESSORSHIP** including a Ph.D. in biological sciences, chemistry, or computer and information sciences over seven years of academic or comparable professional research experience; a publication record commensurate with experience; and a track record of grantsmanship. Salary will be commensurate with experience. Teaching responsibilities will include one course each semester. A completed application should include curriculum vitae; a vision statement regarding the role of the Director; and the names, telephone numbers, and e-mail addresses of five references. Review of applications will begin January 11, 2002. Visit the program's **website: http://www.towson.edu/mb3**. Completed applications should be sent to: **Dr. Gail Gasparich, Chair, MB3 Search Committee, Department of Biological Sciences, Towson University, 8000 York Road, Towson, MD 21252-7097**. *Towson University is an Equal Opportunity/Affirmative Action Employer and has a strong institutional commitment to diversity. Women, minorities, persons with disabilities, and veterans are encouraged to apply.*

FACULTY POSITION
Medical Microbiology and Immunology

The Department of Medical Microbiology and Immunology, University of Wisconsin–Madison, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. The anticipated starting date for the position is July 1, 2002. The Department currently includes members with active research programs addressing diverse aspects of host/pathogen interactions and using a variety of microbial model systems. Madison has been voted one of the most livable cities in the United States and the University offers a vibrant community of Immunologists and training programs. Applicants must have a Ph.D. and/or M.D. and relevant postdoctoral experience. The successful candidate will be expected to develop an independent research program and participate in teaching at the undergraduate, graduate, and/or medical student level. For more information, visit our departmental **website: http://www.medmicro.wisc.edu/index.html**. To apply, please send curriculum vitae; three letters of reference from persons knowledgeable of your research and/or teaching abilities; and a statement describing present and future research interests by January 1, 2002, to: **Faculty Search Committee, c/o Patrick Heinritz, Medical Microbiology and Immunology, 1300 University Avenue, Madison, WI 53706-1532**. *UW–Madison is an Equal Opportunity/Affirmative Action Employer. Unless confidentiality is requested in writing, information regarding the names of applicants must be released upon request. Finalists cannot be guaranteed confidentiality.*

POSTDOCTORAL POSITIONS available to study basic mechanisms of resistance to anticancer drugs in both human cells and cells of the model organism *Dictostelium discoideum*. Molecular genetic, biochemical, and high-throughput proteomic approaches will be used. These projects address basic science questions including signal transduction and DNA repair. Candidates with a Ph.D. and experience in molecular biology should submit a brief description of past research experience, curriculum vitae, reprints, and three references to: **Dr. Stephen Alexander, Division of Biological Science, University of Missouri, Columbia, MO 65211. E-mail: alexanderst@missouri.edu; website: http://www.biosci.missouri.edu/alexander/.**

POSITIONS OPEN

FACULTY POSITIONS
NEUROBIOLOGY
MCP Hahnemann University

The Department of Neurobiology and Anatomy in the School of Medicine is inviting applications for tenure-track faculty positions. Successful candidates will be expected to establish and maintain externally funded research programs and contribute to the graduate and medical educational programs. Candidates from all areas of neuroscience will be considered but the initial emphasis will be the fields of spinal cord injury, molecular and cellular neurobiology, or integrative neuroscience. The academic rank is open with competitive start-up packages commensurate with experience.

The goal is to identify individuals whose interests complement those of existing faculty (**website: http://neurobio.mcphu.edu**) and continue the tradition of highly interactive research activities within the Department. Faculty will also have the opportunity to collaborate with a broad-based and expanding community of Clinical and Basic Neuroscientists throughout the University.

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

Search Committee
Department of Neurobiology and Anatomy
MCP Hahnemann University
2900 Queen Lane
Philadelphia, PA 19129

MCPHU is an Equal Opportunity Employer fostering diversity in the workplace.

FACULTY POSITIONS
NEUROSCIENCE
University of Virginia

The Department of Neuroscience at the University of Virginia is recruiting new tenure-track faculty at the levels of **ASSISTANT, ASSOCIATE,** and **FULL PROFESSOR**.

Candidates should have a Ph.D. and/or M.D. with a background in cellular, molecular, and/or systems aspects of the neurosciences. The faculty member will be expected to establish a productive working laboratory, teach in graduate and medical school courses, and mentor graduate students.

Applicants should submit curriculum vitae that includes a summary of current research activities and the names and telephone numbers of three references to:

Faculty Search Committee
c/o Kevin S. Lee, Ph.D., Chair
Department of Neuroscience
University of Virginia Health System
P.O. Box 801392
Charlottesville, VA 22908

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

POSTDOCTORAL POSITIONS
Ecology, Evolution, and Behavior

We announce Postdoctoral Associate positions sponsored by the Department of Ecology, Evolution, and Behavior at the University of Minnesota. Individuals whose research interests complement those of departmental faculty and who can start an appointment during 2002 are encouraged to apply. These two-year appointments provide salary, health care benefits, and a modest research and travel allowance. Applicants must identify, contact, and arrange for a letter of support to be sent by one or more University of Minnesota EEB faculty sponsors (see **website: http://www.cbs.umn.edu/eeb/**). Postdoctoral Associates will also teach one undergraduate or graduate seminar each year and should submit suggested titles. To apply, send curriculum vitae, copies of publications, a description of proposed research, name of faculty sponsor(s), and names of three references to: **EEB Postdoctoral Selection Committee, 100 Ecology, 1987 Upper Buford Circle, St. Paul, MN 55108**. *Applications must be mailed and postmarked by November 30, 2001.*

POSITIONS OPEN

FACULTY POSITION
Vision Research
SUNY Upstate Medical University

A tenure-track faculty position at the **ASSOCIATE PROFESSOR** or **PROFESSOR** level is available in the Department of Ophthalmology at the State University of New York Upstate Medical University for an individual holding an M.D. and/or Ph.D. degree. The individual recruited into this position will be expected to have a research program investigating the genetic, molecular, and cellular basis of eye development, function, or disease. The Department of Ophthalmology is home to the Center for Vision Research, which brings together Vision Scientists from a variety of departments with common research interests. The successful applicant will be using or developing animal models as a mainstay of the research program. Excellent laboratory space and facilities, substantial start-up funds, and a competitive salary will be provided. The Department expects to continue signficiant expansion in the future.

Applicants should send curriculum vitae, a summary of research accomplishments, a detailed research plan, and three reference letters to: **Dr. Robert Barlow, Professor and Director, Center for Vision Research, c/o Ms. Edwina Charlton, Department of Ophthalmology, SUNY Upstate Medical University, 550 Harrison Street, Suite 340, Syracuse, NY 13202**. *SUNY Upstate Medical University is committed to increasing representation of women and minority groups on its faculty and particularly encourages applications from such candidates. Upstate Medical University is an Equal Employment Opportunity/Affirmative Action Employer seeking excellence through diversity.*

Stanford University School of Medicine: Applications are invited from individuals for a faculty position at the rank of **ASSISTANT PROFESSOR** (research). The applicant must have a Ph.D. (or equivalent) degree in pharmacology and a minimum of four years of postdoctoral training in a field related to the Ph.D. thesis. The applicant must have evidence of independent inquiry and must have successfully applied for research funds from a federal agency. The applicant will be expected to develop and lead an independent program in the field of pharmacology as it relates to anesthesia and analgesia. The applicant will also be expected to interact collaboratively with Physician Investigators on the faculty and prior experience in this activity will be viewed favorably. The applicant will be expected to help direct a department-wide effort to establish a multiinvestigator program project in the area of altered responsiveness to anesthetic and analgesic drugs and to implement a research training program in the same field. The duration of the position is coterminous with salary support from external funds. Interested candidates please submit curriculum vitae to: **Dr. Ronald G. Pearl, Chair, Department of Anesthesia, Stanford University School of Medicine, 300 Pasteur Drive, Stanford, CA 94305**. *Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.* 7/01.

Applications are invited for a **RESEARCH ASSOCIATE** (Postdoctoral) position in a pharmacology laboratory studying signal transduction at the Oregon State University College of Pharmacy. For the full position announcement, see our **website: http://osu.orst.edu/jobs**. This is a full-time, 12-month, fixed-term position beginning immediately. For full consideration, apply by December 3, 2001. Send curriculum vitae, a letter of interest, and names of three references to: **Theresa M. Filtz, Ph.D., OSU College of Pharmacy, 203 Pharmacy Building, Corvallis, OR 97331-3507. E-mail: theresa.fitz@orst.edu**. *OSU is an Affirmative Action/Equal Opportunity Employer and has a policy of being responsive to the needs of dual-career couples.*

INNOVATE!

Ambion, Inc., is looking for talented Research Associates with strong skills in RNA-related technologies. Candidates should have a Bachelor's degree with at least five years of experience or a Master's degree with at least two years of experience, a publication record and an innovative and entrepreneurial spirit. We feel that Ambion's diverse and interactive R&D group is unique in the industry and has been important to our continuing success. If this type of scientific environment appeals to you, then we would like to talk with you! Below are immediate openings for the following positions:

Protein Synthesis Methodology - Job #329 & 330
Ambion is seeking talented molecular biologists with experience in protein expression, purification and analysis. Any experience in high throughput assays and antibody production is desirable.

Protein Engineering Methodology - Job #265 & 331
Ambion is seeking protein biochemists with experience with cloning, overexpressing, purifying, and characterizing enzymes. Expertise in the screening or selection of proteins with novel functions would be a plus.

Ambion is in Austin, the state capital and location of the University of Texas, on the edge of the Texas Hill country with nearby lakes and rivers that provide abundant recreational opportunities. We offer competitive salaries, benefits, and an employee stock option plan. Reply to address below referencing specific job #:

Ambion, Inc.
2130 Woodward Street
Austin, TX 78744
Or online @ www.ambion.com

EOE/AA

AMBION - THE RNA COMPANY

STOWERS INSTITUTE®
FOR MEDICAL RESEARCH

Research Specialist in Genomics

Situated on a 10-acre campus in the heart of Kansas City, the Stowers Institute for Medical Research conducts basic research on genes and proteins that control fundamental processes of cellular life.

A position is immediately available for a Senior Research Specialist (B.S./M.S. or Ph.D.) in our Genomics Core facility. Laboratory experience in molecular biology and experience in sequencing, cDNA/Affymetrix microarray, and data analysis is strongly preferred. Candidates must have experience in high throughput and robotic technologies.

The Stowers Institute offers competitive salaries and excellent benefits. To apply, send resume to **Human Resources, Stowers Institute for Medical Research, 1000 East 50th Street, Kansas City, MO 64110; or to careers@stowers-institute.org. For informal inquiries about the above position, contact Dr. Ranjan Perera at per@stowers-institute.org.**

The Stowers Institute is an Equal Opportunity Employer.

www.stowers-institute.org

Max-Planck-Institut für Neurobiologie

The Max-Planck-Institute of Neurobiology, Munich-Martinsried, offers the opportunity to set up

Independent Junior Research Group (Selbständige Nachwuchsgruppe)

The ideal candidate is younger than 35 years, has a proven research record and will complement the following research areas established in the Institute's Departments

Cellular and Systems Neurobiology (T. Bonhoeffer): Mechanisms of Synaptic Plasticity in the CNS
Systems and Computational Neurobiology (A. Borst): Neural Image Processing in the Fly Visual System
Molecular Neurobiology (R. Klein): Genetic Analysis of Neurotrophin and Axon Guidance Receptors
Neuroimmunology (H. Wekerle): Interactions between the Nervous and the Immune System: Auto-immunity in the CNS

and Research Groups

B. Conradt: Cell Death Regulation
B. Grothe: Auditory Processing
M. Götz: Mechanisms of Regional Specification in the Vertebrate CNS
H. Thoenen: Storage and Release of Neurotrophins, Roles of Neurotrophins in Synaptic Plasticity

The contract is at the Associate Professor level (German University scale C2-C3) limited to 5 years. The institute will provide appropriate laboratory space, equipment and running costs, as well as the salaries for one additional scientist, one graduate student and one technician. The deadline for applications is November 30, 2001. Applicants should submit their CV, list of publications and a short outline of their scientific work – both achieved and planned – to:

Max-Planck-Institut für Neurobiologie
Dr. Tobias Bonhoeffer
Geschäftsführender Direktor
Am Klopferspitz 18A · D - 82152 Martinsried
Tel.: +49 (89) 8578 3751 · Fax: +49 (89) 8578 2481
www.neuro.mpg.de

MAX-PLANCK-GESELLSCHAFT

Research Fellow/Senior Research Fellow Position Cytochrome P450 Arachidonic Acid Metabolism

A Research Fellow/Senior Research Fellow position is available immediately at NIH/NIEHS to study the regulation and functional significance of eicosanoid metabolizing enzymes in the heart, lung and kidney. Emphasis will be placed on studies which examine the effects of altered gene expression on cell/organ function utilizing in vitro systems and transgenic/knockout mice. Research will also involve the use of state-of-the-art techniques including DNA microarray. Applicants should possess a Ph.D. degree in Molecular Biology, Cell Biology, Biochemistry or Pharmacology, have at least 3-4 years of relevant postdoctoral experience preferably in the areas of cytochrome P450 and/or eicosanoid metabolism, and be able to successfully conduct, with minimal supervision, a pre-established program in laboratory research. Applicants must also have demonstrated outstanding scholastic achievement as evidenced by publications in high quality, peer-reviewed journals. Salary will be commensurate with qualifications and experience.

For prompt consideration, send cover letter, curriculum vitae, and three letters of reference by January 31, 2002, to:

Darryl C. Zeldin, M.D., Senior Scientist
NIH/NIEHS Division of Intramural Research
111 T.W. Alexander Drive, Building 101, D236
Research Triangle Park, NC 27709
E-mail: ZELDIN@NIEHS.NIH.GOV

NIEHS

NATIONAL INSTITUTES OF HEALTH

NIH is an Equal Opportunity Employer

Central College, Pella, Iowa, invites applications for two tenure-track positions for the rank of **ASSISTANT** or **ASSOCIATE PROFESSOR** for the 2002–2003 academic year. Qualifications include Ph.D. in biology or a related discipline and a commitment to excellence in teaching and to engaging students in an active research program. Teaching experience is desirable. ABDs may be considered.

Position One: field zoology. The Field Zoologist will teach courses in introductory biology, vertebrate natural history, and comparative vertebrate anatomy.

Position Two: genetics. The Geneticist will teach courses in introductory biology, genetics, and evolution.

Additional responsibilities for both positions may include research seminars, interdisciplinary courses, and assistance with internships and research projects. The successful candidates will be encouraged to develop additional course offerings in their interest areas for majors and nonmajors. Candidates should send (1) a letter of application, (2) curriculum vitae, (3) a one-page statement of teaching philosophy, (4) a copy of undergraduate and graduate transcripts, and (5) names and contact information for three references to: **Dr. Paul Naour, VPAA, Central College, 812 University, Pella, IA 50219**. Additional college and posting information is available at **website: http://www.central.edu**. Review of applications will begin November 15, 2001, and continue until the position is filled. *Central is an Affirmative Action/Equal Opportunity Employer.*

BIOCHEMISTRY. The Department of Chemistry at John Carroll University (**website: http://chemistry.jcu.edu**) invites applications for a tenure-track **ASSISTANT PROFESSOR** position beginning August 2002. A Ph.D. in biochemistry is required. Some previous teaching experience is preferred. The successful candidate is expected to teach biochemistry courses and laboratory, introductory-level chemistry courses, participate in the University's strong biochemistry/molecular biology concentration, and establish an active undergraduate research program that results in publication. The Department is well equipped in chemical and biochemical instrumentation, is currently an NSF-REU site, and will move into the new Dolan Center for Science and Technology upon its completion in fall 2003. John Carroll University is a privately controlled, coeducational, Catholic and Jesuit University located in the eastern suburbs of Cleveland, Ohio. Curriculum vitae, undergraduate and graduate transcripts, three letters of recommendation, a statement of teaching philosophy, a description of proposed research, and equipment needs should be sent to: **Dr. Paul R. Challen, Chair, Department of Chemistry, John Carroll University, The Jesuit University in Cleveland, University Heights, OH 44118**. Review of applicants will begin December 15, 2001. *John Carroll University is an Equal Opportunity/Affirmative Action Employer.*

UNIVERSITY OF FLORIDA

The Division of Nephrology at the University of Florida is seeking applicants for the Central Florida Kidney Center **EMINENT SCHOLAR POSITION**. Applicants must have an established, nationally prominent program in basic science or clinical investigation. The successful candidate will be expected to develop an independent research program competitive for extramural funding. Generous start-up funds, laboratory space, and protected time are available. The environment offers outstanding core facilities and extensive opportunities for collaboration in both basic and clinical investigation. A clinical background is not an essential requirement. Salary and benefits commensurate with experience. This is a tenure-track position. Recruiting deadline: January 1, 2002. Anticipated start date: July 1, 2002. Interested applicants should submit curriculum vitae to: **Stephen L. Gluck, M.D., Chief, Division of Nephrology, Hypertension, and Transplantation, University of Florida College of Medicine, Box 100224, 1600 S.W. Archer Road, Gainesville, FL 32610-0224**. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR
PHARMACEUTICAL SCIENCES
(Pharmacology)

The Western University of Health Sciences College of Pharmacy invites applications for a tenure-track faculty position in pharmacology at the rank of Assistant Professor. Candidates should possess a Doctoral-level degree in pharmacology. The candidate will participate in teaching by integrating concepts of pharmacology into the Pharm.D. curriculum. The College is committed to excellence in teaching and teaching experience/interest in cancer and/or endocrine pharmacology is desirable. Preference will be given to those individuals with a pharmacy background and postdoctoral experience. The successful candidate will be expected to establish an extramurally funded research program in any area of pharmacology. Salary is negotiable and commensurate with qualifications and experience. Applicants should submit a letter of interest describing teaching and research activities/goals, curriculum vitae, and the names and contact information of three references. Review of application materials will continue until the position is filled. Completed applications (electronic submission encouraged) should be sent to:

Dion Brocks, Ph.D.
Chair, Search Committee
Western University of Health Sciences
College of Pharmacy
College Plaza, 309 East Second Street
Pomona, CA 91766-1854
Telephone: 909-469-5597
FAX: 909-469-5539
E-mail: dbrocks@westernu.edu

Western University of Health Sciences is an Affirmative Action/Equal Opportunity Employer and actively seeks applications from women and minorities.

DEPARTMENT OF BIOLOGY
COLLEGE OF CHARLESTON
Charleston, South Carolina

The Department of Biology at the College of Charleston invites applications and nominations for **DEPARTMENT CHAIR**. We seek a person who will provide leadership in a community of productive scholars committed to excellence in teaching. The ideal candidate will have established research and grants experience, administrative experience, and demonstrated commitment to undergraduate education. The Department of Biology presently has 31 full-time faculty members on the main campus and at the Grice Marine Laboratory on Charleston harbor, representing the full range of biological disciplines. The Department has about 700 undergraduate majors and offers Bachelor's degrees in marine biology and biology with emphases in molecular biology and teacher preparation. Additionally, the Department offers the M.S. degree in marine biology and participates in an interdisciplinary M.S. program in environmental studies. The College of Charleston is a public, liberal arts college of about 11,000 students located in historic downtown Charleston, South Carolina. Further information is available at **website: http://www.cofc.edu/~biology**.

Applicants should send a cover letter, curriculum vitae, and the names and telephone numbers of four references (at least one of whom can address the candidate's administrative skills) to: **Chair, Biology Chair Search Committee, School of Sciences and Mathematics, College of Charleston, 66 George Street, Charleston, SC 29424.** Questions may be directed to: **Deanna Caveny; Telephone: 843-953-5731; e-mail: cavenyd@cofc.edu**. The Search Committee will begin screening applicants on January 9, 2002, but will accept applications until the position is filled. The new Chair will assume duties effective August 16, 2002. *The College of Charleston is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.*

POSITIONS OPEN

Plant virology (Samuel H. Smith Endowed Professorship). Permanent, full-time (12-month), tenure-track faculty position at **ASSISTANT PROFESSOR/SCIENTIST** or **ASSOCIATE PROFESSOR/SCIENTIST**. Research appointment with 40% teaching and 60% research at Washington State University, Department of Plant Pathology, Pullman, Washington. Required: an earned Doctorate at time of interview in plant pathology or plant virology; evidence of scholarly contributions. Desired: advanced training in plant virology; evidence of ability to conduct imaginative and sustained research on plant viruses; demonstrated ability to obtain external funding; evidence of oral, written, and electronic communicative skills; evidence of collaborative research; participation in professional activities; capability and ability to lead and advise students. Screening of application materials will begin January 11, 2002, and continue until position is filled. Letter of application addressing each of the required and desirable qualifications and three letters of reference along with curriculum vitae and copies of college and university transcripts are to be sent to: **Dr. Jack D. Rogers, Washington State University, Department of Plant Pathology, P.O. Box 646430, Pullman, WA 99164-6430. Telephone: 509-335-9541; FAX: 509-335-9581; e-mail: rogers@wsu.edu**. *Equal Employment Opportunity/Affirmative Action/Americans With Disabilities Act.*

CAMILLE AND HENRY DREYFUS
POSTDOCTORAL FELLOWSHIP
IN ENVIRONMENTAL SCIENCE
Massachusetts Institute of Technology

The Massachusetts Institute of Technology has been awarded a Postdoctoral Fellowship by the Dreyfus Foundation, which will enable a Ph.D. Chemist or Chemical Engineer to carry out interdisciplinary research in environmental science. A wide range of research topics is available to interested candidates including atmospheric chemistry; environmental monitoring and modeling; studies of the fate and transport of toxic chemicals; and integrated assessment of urban, regional, and global air pollution. In addition to his or her primary research activities, the Postdoctoral Fellow will participate actively in interdisciplinary environmental seminars and teaching programs at MIT. The Fellow will possess a Doctorate specifically in chemical science or engineering but is not expected already to be an expert in environmental science.

The salary is $35,000 for the first year, renewable for one additional year by mutual agreement among the Fellow, the faculty supervisor, and the Dryfus Foundation. A supplementary research allowance of $5,000 per year is available. A selection committee will review applications received by December 15, 2001. Application including curriculum vitae, publication list, statement of specific research interest, and three letters of recommendation lshould be sent to: **Dr. Luisa T. Molina, Department of Earth, Atmospheric, and Planetary Sciences, Room 54-1818, MIT, Cambridge, MA 02139. E-mail: ltmolina@mit.edu**. *MIT is an Equal Opportunity/Affirmative Action Employer.*

The Departments of Botany and Zoology are jointly searching for two tenure-track positions in ecology. We seek colleagues who share our enthusiasm for an integrated program in biology. We expect to hire at the **ASSISTANT PROFESSOR** level, but exceptional candidates at the **ASSOCIATE** and **FULL PROFESSOR** rank may be considered if they have a demonstrated record of mentoring students in economically and enthnically diverse populations. Applications (cover letter, research and teaching statements, curriculum vitae, sample reprints, and three letters of recommendation) should be sent to: **Chair, Ecology Search Committee, Box 355325, University of Washington, Seattle, WA 98195-5325**. Priority will be given to applications received by 30 November 2001. *The University of Washington is building a culturally diverse faculty and strongly encourages applications from women and minority candidates. The University is an Equal Opportunity/Affirmative Action Employer.*

Postdoctoral Fellowships in Sensory Systems Research

The Training Program in Hearing and Multisensory Integration at **Wake Forest University School of Medicine** is seeking qualified applicants for postdoctoral fellowships. Applicants for these NIH training program sponsored fellowships must hold their Ph.D. and be U.S. citizens or permanent residents.

Program faculty and their research interests include:
- Judy Brunso-Bechtold: synapses, dendrites, development, aging, trophic factors, audition
- Robert Coghill: pain, fMRI, psychophysics, affect
- Dwayne Godwin: vision, perception, nitric oxide
- Ashok Hegde: memory, olfaction, genes, behavior
- Craig Henkel: auditory brainstem, development, sensory deprivation, plasticity
- James Johnson: BDNF, development, plasticity
- John McHaffie: visual hemineglect, basal ganglia-midbrain interactions, superior colliculus, pain
- David Riddle: development, aging, growth factors
- Terry Stanford: oculomotor, superior colliculus, motor thalamus, saccade, spatial memory
- Barry Stein: multisensory integration, development, cortex, superior colliculus, sensory systems
- Michael Tytell: heat shock proteins, retinal damage
- Mark Wallace: multisensory processes, sensorimotor integration, sensory development

A more complete description of the research environment and training program can be found at **http://www.wfubmc.edu/nba.** Applicants should send CV, a brief description of current research, and the names of 3 references to:

Dr. Judy K. Brunso-Bechtold
Department of Neurobiology & Anatomy
Wake Forest University School of Medicine
Winston-Salem, NC 27157-1010

Wake Forest University School of Medicine is an Affirmative Action and Equal Opportunity Employer

Postdoctoral Fellow Opportunities

Procter & Gamble has two opportunities available for postdoctoral fellows at the Miami Valley Laboratories located in Cincinnati, Ohio.

If you meet the qualifications for these positions, please apply on-line at:
www.pg.com/jobs/apply_now
(Refer to the appropriate ad code.)

No agency referrals or telephone calls, please.
Only applicants living in North America can be considered for these positions.
An equal opportunity employer.

Developmental Toxicology (ad code NAUSRD001256)
The individual will work in toxicogenomics, particularly in understanding the effects of estrogens, anti-androgens and thyroid toxicants on gene expression in the mammalian embryo and the relationship of altered gene expression to developmental toxicity. Job responsibilities: carry out in-life and in vitro experiments involving molecular and genomic approaches; RNA isolation and characterization; PCR, RT-PCR, in situ hybridization; transfections and other techniques will be used to answer basic questions about mechanisms of abnormal development caused by toxicant exposure. Job requirements include: a Ph.D. or equivalent in life sciences with a background in molecular and developmental biology.

Skin Allergy (ad code NAUSRD001258)
The individual will work on the development of alternative, in vitro methods for predicting skin allergy. The scope of the research program involves developing an understanding of the chemical, metabolic, and molecular (toxicogenomics) aspects of skin allergy. Job responsibilities: carry out in-life and in vitro experiments involving molecular and genomic approaches; RNA isolation and characterization; PCR, RT-PCR, methods to model skin metabolism and other techniques will be used to answer basic questions about mechanisms of skin allergy caused by toxicant exposure. Job requirements include: a Ph.D. or equivalent in life sciences with a background in molecular biology and/or immunology.

We are a Fortune 20 company that has been consistently rated as one of the "most admired" corporations in the U.S. In addition, our top-rated benefits package serves to support the company's commitment to obtain and retain the best qualified scientists.

The CURE Is Out There

and it starts with you.

At **SUGEN**, *we foster a creative, energetic and team-oriented atmosphere to develop small molecule drugs to benefit those people with serious diseases. Our continued success creates an excellent opportunity in our South San Francisco facility for a dedicated professional to join our growing R&D team.*

Scientist

- Discovery Biology -

The ideal candidate will have demonstrated experience in the cloning, heterologous expression (bacteria and insect cell), purification and characterization of recombinant proteins and in the biochemical and biophysical characterization of proteins. Specific experience required in protein chemistry (circular dichroism, mass spectrometry, phosphopeptide identification/mapping), protein-protein/ligand interactions (isothermal-titration calorimetry, BIAcore) and protein engineering. A working knowledge of protein structure (x-ray crystallography or NMR) and/or protein crystallization would be considered beneficial. The position requires a Ph.D. in biochemistry or related discipline with 2 or more years of postdoctoral experience.

For a summary of our outstanding benefits package, please visit our web site at **www.sugen.com.**

For consideration, please forward resume & cover letter to: **SUGEN, Inc., HR Department, Attn. Job Code: AS50182SCI-MS, 230 East Grand Avenue, South San Francisco, CA 94080; FAX: (650) 837-3301; Email: jobs@sugen.com** (MS Word docs only, please)

EOE

POSITION IN Genome Stability

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

The Laboratory of Molecular Genetics, National Institute of Environmental Health Sciences, National Institutes of Health, invites applications for a tenure-track principal investigator in the area of genome stability. Applicants should have a Doctoral degree and a strong record of accomplishment. While applicants will be considered in all areas related to genome stability, our particular interest is in persons using innovative genetic, cellular or biochemical approaches to investigate the cellular circuitry and macromolecular interactions that maintain genome stability in response to environmental stress. Time before tenure review will depend upon qualifications, but will not exceed 6 years. Salary will be commensurate with experience and qualifications. Federal benefits apply. Excellent space and research support are available.

For additional information concerning this position, contact Dr. Perry Blackshear, Search Committee Chair, at 919-541-4899 or black009@niehs.nih.gov. See website http://dir.niehs.nih.gov/dirlmg/ for a laboratory description. Applications from women or minorities are particularly welcome. Interested parties should submit a curriculum vitae, a list of publications, reprints of up to five representative publications, a summary of past research and a description of future research plans and have three letters of reference sent to the following address. Application packages received by December 3, 2001, will receive priority consideration. Applications received after December 3, 2001, but no later than January 3, 2002, will be evaluated as needed.

Ms. Tammy Locklear (Vacancy HNV01-22)
NIEHS Human Resource Management Branch
P.O. Box 12233, Maildrop EC-11
Research Triangle Park, N.C. 27709
Phone: (919) 541-3317
e-mail: locklea1@niehs.nih.gov

NIH is an Equal Opportunity Employer

NATIONAL INSTITUTES OF HEALTH
NIEHS

POSITIONS OPEN

FACULTY POSITIONS
AGING AND DEVELOPMENTAL BIOLOGY
University of Rochester
Center for Aging and Developmental Biology

The University of Rochester has developed a new Center for Aging and Developmental Biology that focuses on mechanisms underlying the development, maintenance, and diseases of the nervous system as well as the application of mechanism-based therapeutics including gene therapy. Faculty candidates with research interests in these areas are encouraged to apply.

The Center will recruit several faculty at the junior and more senior levels to join the extant faculty. The Center is housed in a new state-of-the-art laboratory building and will collaborate closely with other Centers of the University's Aab Institute including the Centers for Human Genetics and Molecular Pediatric Disease, Cancer Biology, Cardiovascular Research, Vaccine Biology, and Immunology and Oral Biology. The Aab Institute provides a highly interactive environment with ready access to transgenic, gene knockout, and DNA microassay cores.

Research faculty will have appointments in existing academic departments of the University and be expected to have or develop independently funded research programs. Applicants should send curriculum vitae, a brief statement of research interests, and contact information for at least three references to:

Dr. Howard Federoff, Ph.D.
Director, Center for Aging and Developmental Biology
University of Rochester School of Medicine
601 Elmwood Avenue, Box 645
Rochester, NY 14642
E-mail: howard_federoff@urmc.rochester.edu

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

FACULTY POSITION
State University of New York
College of Optometry

The Department of Biological Sciences invites applications for an initial three-year appointment at the **ASSISTANT/ASSOCIATE PROFESSOR** level in a tenure-track position. The candidate must be an independent Investigator and be able to obtain sustained extramural funding within this initial appointment period. It is expected that the applicant is trained in a basic biomedical science discipline and is willing to develop and apply cell physiology/pharmacology techniques to experimental projects in vision sciences research. In addition, the individual will participate in team teaching of pharmacology and graduate courses in their area of expertise. Generous start-up funds are available along with scientific support from colleagues who have substantive extramural support for their established experimental eye research programs. Applications will be accepted until the position is filled Candidates should send curriculum vitae, a two-page summary of current research, and three names for possible references to: **Dr. John J. Picarelli, Chair, Biological Science Search Committee, 33 West 42nd Street, New York, NY 10036. E-mail: jpicarelli@sunyopt.edu**. *SUNY-State College of Optometry is an Affirmative Action/Equal Opportunity Employer and encourages application from women and minority groups.*

POSTDOCTORAL POSITION available immediately to study structure-function relationships in enzymatic catalysis. Principal approaches include the correlation of results of multiwavelength, transient-state kinetic studies using a variety of biophysical techniques with structural information from X-ray crystallography, NMR and IR studies. Contact: **Harvey F. Fisher, Professor of Biochemistry, University of Kansas School of Medicine, VA Medical Center, 4801 Linwood Boulevard, Kansas City, MO 64128. Telephone: 816-861-4700, Extension 7156; FAX: 816-861-1110; e-mail: hfisher@kumc.edu**. *Equal Opportunity Employer.*

POSITIONS OPEN

Rocky Mountain Taste and Smell Center

POSTDOCTORAL POSITIONS
Rocky Mountain Taste and Smell Center
University of Colorado Health Sciences Center

Three positions open for independent **POSTDOCTORAL RESEARCH** in the areas of development, sensory motor integration, and encoding of complex stimulus quality. The Rocky Mountain Taste and Smell Center is a highly interactive, interdisciplinary group focusing on chemoreception. Competitive salary and benefits and a desirable location at the foot of the Rocky Mountains.

Study mechanisms of quality coding for complex natural odorants in the laboratory of **Dr. Diego Restrepo**. We investigate how urine odor quality is encoded in the olfactory bulb of mice. Urine odor has profound influence on social interactions in mice. Research will involve headspace gas chromatography, measurement of odor-induced activity in the olfactory bulb, and computerized behavioral odor detection studies. See **website: http://www.uchsc.edu/ctrsinst/rmtsc/restrepo**.

Investigate the embryonic development of taste buds and their innervation in the laboratory of **Dr. Linda Barlow**. We are studying how taste buds form and are patterned in the lingual epithelium of developing mice and amphibians and how taste sensory neurons find their taste cell targets. Approaches include tissue and cell culture, microinjection and microsurgery, digital imaging, and molecular manipulation of embryonic tissue. See **website: http://www.uchsc.edu/gs/cdb/faculty/barlow.htm**.

Explore the neural mechanisms and circuitry underlying feeding and food sorting behavior in the laboratory of **Dr. Thomas Finger**. In goldfish, this behavior is mediated by a large, laminated hindbrain structure equivalent to the nucleus of the solitary tract. We utilize a variety of anatomical and physiological techniques to investigate the neurotransmitters, receptors, and neuronal architecture of this primary gustatory nucleus. See **website: http://www.uchsc.edu/gs/cdb/faculty/finger.htm**. Candidates should have a Ph.D. in a relevant field. Please send curriculum vitae, three references, and a brief description of research interests to:

Dr. Robin Michaels
Administrator
Rocky Mountain Taste and Smell Center
Box B111, 4200 East Ninth Avenue
Denver, CO 80262

UCHSC is an Equal Opportunity Employer.

STAFF SCIENTIST
BIOCHEMISTRY

Analyze existing data and apply scientific knowledge of biochemistry and surface analysis to develop and design products for immobilization and detection of biomolecules within the aims and strategies of the company. Develop novel microarray surfaces and coating methods that chemically bond DNA and protein to such surfaces for diagnostic and analysis purposes. Initiate or assist with the development of patentable technology for new products and processes and write papers describing or promoting same. Conduct research to develop new generations of surface coating methodologies used in identification and diagnosing procedures for biotechnical application for use in research laboratories. Prepare written proposals for new products or modifications/improvements of existing products. Conduct literature searches and write or assist with the preparation of technical papers and/or research and development presentations. Advise hazardous waste disposal team on proper disposal of chemicals. Assist with patent preparation on other products.

Requirements: Ph.D. in bioorganic chemistry. At least two years of postdoctoral training in the development of surface chemistry for the immobilization of DNA and proteins in diagnostic applications.

Salary: $64,102 annualized.

Send two copies of résumé to: **Job Order Number 2001-945, P.O. Box 989, Concord, NH 03302-0989**.

POSITIONS OPEN

CELLULAR/MOLECULAR IMMUNOLOGY
University of Wisconsin–Milwaukee

The Department of Biological Sciences at the University of Wisconsin–Milwaukee invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level in cellular/molecular immunology. This is one of several positions in molecular biology that we anticipate adding in the next two years. The successful candidate is expected to develop an extramurally funded research program in cellular or molecular immunology. Areas of research may include but are not limited to receptor-ligand interactions, signal transduction, gene regulation, or host-parasite interactions. The successful candidate will complement existing strengths in the Department in areas such as molecular biology, microbiology, developmental biology, and neuroscience and will contribute to departmental teaching of graduate (M.S. and Ph.D.) and undergraduate students. Applicants must have a Ph.D. degree and postdoctoral experience and should submit curriculum vitae, a concise statement of research and teaching goals, up to three reprints, and arrange for three letters of recommendation to be sent to:

Chair, Cell/Molecular Immunology
Search Committee
Department of Biological Sciences
P.O. Box 413
University of Wisconsin–Milwaukee
Milwaukee, WI 53201

Applications postmarked by January 5, 2002, will receive full consideration. Additional information about the Department can be found at **website: http://www.uwm.edu/Dept/Biology/**. *The University of Wisconsin–Milwaukee is an Equal Opportunity/Affirmative Action Employer.*

TENURE-TRACK FACULTY
DRUG DELIVERY
The University of Wisconsin–Madison

The Division of Pharmaceutical Sciences in the School of Pharmacy, University of Wisconsin–Madison, solicits applications for a tenure-track **ASSISTANT PROFESSOR** faculty position in the general area of drug delivery. Other levels will be considered for outstanding candidates. The faculty position requires a Ph.D. in pharmaceutics, biomaterials, or chemical engineering and postdoctoral experience. The successful candidate will be expected to establish a vigorous research program in one of the following areas: nanotechnology, macromolecular adsorption, polymeric drug delivery, self-assembly, supramolecular chemistry, or related disciplines. The successful candidate will occupy state-of-the-art laboratories in the newly constructed School of Pharmacy building. A commitment to undergraduate and graduate education is essential.

Applications must be received by December 15, 2001. Send a statement of research and teaching interests; curriculum vitae; selected reprints; and the names, addresses, telephone numbers, and e-mail addresses of three references to: **Professor Glen S. Kwon, School of Pharmacy, University of Wisconsin–Madison, 777 Highland Drive, Madison, WI 53705-222**. *University of Wisconsin–Madison is an Equal Opportunity/Affirmative Action Employer and strongly encourages women and minorities to apply. Unless confidentiality is requested in writing, information regarding applicants and nominees must be released upon request. Finalists cannot be guaranteed confidentiality.*

POSTDOCTORAL POSITIONS available immediately in an NIH-funded project to investigate signal transduction and mechanisms of cell death in cardiovascular disease. Experience in cellular biology and gene cloning is essential. Send curriculum vitae, official transcript of highest earned degree, and three letters of recommendation to: **Dr. Tuan H. Kuo, Department of Pathology, Wayne State University School of Medicine, 540 East Canfield, Detroit, MI 48201. E-mail: tkuo@med.wayne.edu**. *Wayne State University/Equal Employment Opportunity/Affirmative Action.*

fellowships

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

AAAS Science + Technology Policy Fellowships, 2002:03 >>>

What >>> Help shape science and technology policy in Washington, DC: Contribute scientific and technical information and external perspectives to federal decision-making, while learning how government works. The AAAS fellowship programs provide a unique participatory public policy experience for scientists and engineers, through one-year assignments involving domestic and international science policy issues in the Congress and several executive branch agencies. Stipends begin at $55,000.

Who >>> Applicants must have a Ph.D. or an equivalent doctoral-level degree by the application deadline from any physical, biological or social science, any field of engineering or any relevant interdisciplinary field. Individuals with a master's degree in engineering and at least three years of post-degree professional experience also may apply. U.S. citizenship is required. Federal employees are ineligible. Approximately 50 fellowships are awarded in 10 different programs. Underrepresented minorities and persons with disabilities are encouraged to apply.

When >>> The fellowship year begins September 1, 2002. Fellows attend a two-week orientation before beginning their assignments and participate in a year-long seminar series on topics relevant to science, technology and public policy. **Application deadline is January 10, 2002.**

Where >>> Fellows are placed in the Congress, the National Science Foundation, the National Institutes of Health, the Department of State, the Department of Defense, the Agency for International Development, the Environmental Protection Agency, the Department of Agriculture, the Food and Drug Administration, the Department of Justice, the Department of Energy and other federal offices.

Why >>> AAAS sponsors these programs to provide the opportunity for accomplished and societally-aware scientists and engineers to participate in and contribute to the public policy making process of the federal government. The programs include:

+ Congressional Fellows
+ AAAS/NIH Science Policy Fellows
+ AAAS/NSF Science and Engineering Fellows
+ Diplomacy Fellows
+ Defense Policy Fellows
+ Science, Justice, and Public Policy Fellows
+ Environmental Fellows
+ AAAS/NTI Fellows in Global Security
+ Risk Policy Fellows
+ Roger Revelle Fellows in Global Stewardship

How >>> For application instructions and further information: **www.fellowships.aaas.org**. AAAS Science and Technology Policy Fellowship Programs, 1200 New York Avenue, NW, Washington, DC 20005 • *Phone* 202/326-6700 • *E-mail* science_policy@aaas.org

www.fellowships.aaas.org

AAAS

TWO TENURE-TRACK FACULTY POSITIONS
Department of Neuroscience
University of Pittsburgh

Applications are invited for two faculty positions starting September 2002, one as **ASSISTANT PROFESSOR** and the other as **ASSISTANT** or **ASSOCIATE PROFESSOR**, pending budgetary approval. This is a broadly defined search, and individuals working at any of multiple levels including behavioral, systems, cellular, and molecular neurobiology will be considered. Opportunities for collaborative research are widespread within the Department and the extensive neuroscience community, and a joint appointment in the Center for the Neural Basis of Cognition at the University of Pittsburgh and Carnegie Mellon University is possible for one or both positions. Additional information can be found on the Department's **website: http://www.pitt.edu/~neurosci**. Applicants should send curriculum vitae, a brief statement of research goals, and the names of three references to: **Faculty Search Committee, Department of Neuroscience, 446 Crawford Hall, University of Pittsburgh, Pittsburgh, PA 15260. E-mail: search@bns.pitt.edu**. Applications will be reviewed promptly and are invited until the positions are filled. *The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups underrepresented in academia are especially encouraged to apply.*

Wake Forest University. Three **POSTDOCTORAL POSITIONS** are open immediately to study the signaling mechanism in tumor suppressor gene DCC-induced apoptosis. Experience in apoptosis and cell cycle in preferred. Two Postdoctoral positions are available to study androgen receptor and coregulators and their implication in prostate cancer. Experience in prostate cancer is preferred. Please send curriculum vitae to: **Donna Wood, Administrative Manager, Department of Cancer Biology, Wake Forest University, Medical Center Boulevard, Winston–Salem, NC 27157. E-mail: dswood@wfubmc.edu**. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION in evolutionary genomics. The project involves study of the early evolution of life through phylogenetic and molecular clock analysis of prokaryotic and eukaryotic sequence data, mostly from available complete genomes (see **website: http://www.evogenomics.org/pdocopps/hedgeslab.htm** for details). Send your curriculum vitae and names of three references by e-mail to: **Blair Hedges, Department of Biology, 208 Mueller Laboratory, The Pennsylvania State University, University Park, PA 16802. Telephone: 814-865-9991; FAX: 814-865-9131; e-mail: sbh1@psu.edu**. *Affirmative Action/Equal Opportunity Employer.*

ZOOLOGICAL PARK LEADER. Brookfield Zoo, one of the world's leading zoological parks and conservation centers, seeks a **DIRECTOR** (who also serves as President of the Chicago Zoological Society). Each year, more than two million visitors come to this 216-acre park, which is 20 minutes from downtown Chicago, Illinois. It is both an esteemed scientific and educational institution and an acclaimed destination attraction. Candidates for this role must have a passion for the Zoo's mission of helping people develop a sustainable and harmonious relationship with nature. Requires experience in effective management of a complex public or private organization, preferably one with science professionals. Outstanding communication, collaboration, and fund-raising skills are also essential. For more information, see **website: http://www.brookfieldzoo.org** or contact: **Karen Wilcox, Isaacson, Miller, 334 Boylston Street, Boston, MA 02116. E-mail: kwilcox@imsearch.com; website: http://www.imsearch.com**.

POSITIONS OPEN

NORTHWESTERN UNIVERSITY DEPARTMENT OF PHYSIOLOGY

The Department of Physiology at Northwestern University Medical School announces a search for two new **TENURE-TRACK FACULTY MEMBERS**. Faculty rank and salary for these full-time appointments are open. Outstanding candidates employing innovative cellular and molecular approaches to understand neuronal dendritic and synaptic function are encouraged to apply. These are the first of six new positions to be filled in this area of neuroscience with the goal of creating a highly interactive group of Investigators that complements the existing group of outstanding Neuroscientists in the Department of Physiology and Northwestern University. Successful candidates holding a Ph.D. or M.D. degree are expected to establish an independently funded research program. Start date: June 1, 2002.

Additional information about the Department of Physiology and the Northwestern University Institute for Neurosciences can be found on our **websites: http://dept-www.physio.nwu.edu/physiology/physiofr.htm** and **http://nuinfo.nwu.edu/nuin/**. Please send curriculum vitae; a description of research interests; and three letters of reference by December 1, 2001, to:

D. James Surmeier, Ph.D.
Chair
Department of Physiology
Northwestern University Medical School
303 East Chicago Avenue, M211
Chicago, IL 60611

Northwestern University is an Affirmative Action/Equal Opportunity Employer. Hiring is contingent upon eligibility to work in the United States. Women and minorities are especially encouraged to apply.
P-133-02, P-134-02

RESEARCH FACULTY POSITION
University of Vermont

RESEARCH ASSOCIATE/RESEARCH ASSISTANT PROFESSOR available in anatomy and neurobiology to supervise department-funded, multiuser electrophysiology/imaging core. Duties include administration and maintenance of facility with two optical/patch clamp rigs, training users, and collaborating in research projects. Experience with confocal and deconvolution reconstruction microscopy required; patch clamp recording and experience with UNIX system desired. Opportunity for independent research program. Salary based on training/research experience. Apply with curriculum vitae and three references to:

Dr. Rodney L. Parsons
University of Vermont
C427 Given Building
Burlington, VT 05405-0068
Telephone: 802-656-2230
E-mail: rparsons@zoo.uvm.edu

Applications accepted until position is filled.

The University of Vermont is an Equal Opportunity Employer. Applications from women and underrepresented ethnic groups are encouraged.

THE HEISER PROGRAM FOR RESEARCH IN LEPROSY AND TUBERCULOSIS

Beginning **POSTDOCTORAL RESEARCH FELLOWSHIPS** in leprosy and tuberculosis available at stipend levels between $30,000 and $35,000 (plus other allowances) and research grants in leprosy only in amounts up to $30,000. Applicants should have M.D., Ph.D., or equivalent degree. Application deadline: February 1, 2002, for awards to be activated July through December 2002. For information and forms, write: **The Heiser Program, 450 East 63rd Street, New York, NY 10021. FAX: 212-688-6794**.

POSITIONS OPEN

FACULTY POSITIONS
TENURE-TRACK BIOLOGIST

Three tenure-track positions at the rank of **ASSISTANT PROFESSOR**. A Ph.D. in the biological sciences and demonstrated excellence in teaching is required. Postdoctoral research experience with a record of publication in the area of expertise is strongly preferred. Applicants should have a very strong commitment to undergraduate teaching and to the research training of undergraduates. Responsibilities include teaching introductory biology courses and laboratories, developing new courses in the area of expertise, advising, conducting research in the area of expertise, and assisting students in independent research projects. Applicants are sought in one of the following areas of expertise: neurobiology, genomics/bioinformatics, cell and molecular biology, physiology, or evolutionary biology. Tenure-track Biologist: one three-year (renewable) appointment at the rank of **ASSISTANT PROFESSOR**. A Ph.D. in the biological sciences and demonstrated excellence in teaching is required. Postdoctoral research experience with a record of publication in the area of expertise is desirable. Applicants should have a very strong commitment to teaching and participating in the research training of undergraduates. Responsibilities include teaching introductory biology courses and laboratories for majors and nonmajors, developing new courses in the area of expertise, and advising. Send letter of application, curriculum vitae, three letters of reference, graduate transcript, and a statement of teaching philosophy and research interests to: **Dr. Pamela J. Gunter-Smith, Chair, Department of Biology, Spelman College, Box 1183, 350 Spelman Lane, Atlanta, GA 30314**. Review of material begins November 1, 2001.

FACULTY POSITION
Hands-On Manager of
Transgenic Mouse Facility

The University of Connecticut Health Center is seeking a highly qualified individual to supervise its mouse transgenic and ES cell culture cores as well as the colony management activities in the recently built barrier facility (capacity for 20,000 mice). The successful candidate will hold a Ph.D. (or other advanced degree) and have demonstrated expertise in gene targeting construct design, ES cell culture and manipulations, morula aggregation, pronuclei and blastocyst injection, mouse embryo manipulations, and barrier facility husbandry. He/she will join the faculty of the Department of Genetics and Developmental Biology and will fully participate in and enjoy the support of the Department.

Candidates should apply by sumitting curriculum vitae and the names of three references to:

Marc Lalande, Ph.D.
Professor and Chair
Department of Genetics and Developmental Biology
The University of Connecticut Health Center
School of Medicine
Farmington, CT 06030-3301

UCHC is an Equal Opportunity Employer; Minorities/Females/Veterans/Persons With Disabilities.

POSTDOCTORAL POSITIONS available immediately to study the *in vivo* role of CNTF receptors in the development, protection, and regeneration of the nervous system. The research involves cell-specific, conditional genomic knockouts and viral-directed gene expression in conjunction with stereotaxic surgery, whole cell patch clamp electrophysiology, immunohistochemistry, confocal microscopy, and digital image analysis. Requirements: a background in neuroscience and experience with at least one of the above techniques. Send curriculum vitae and names of references to: **Dr. John MacLennan, Department of Molecular and Cellular Physiology, 231 Albert Sabin Way, Box 670576, University of Cincinnati, Cincinnati, OH 45267. E-mail: john.maclen@uc.edu; website: http://www.med.uc.edu/physiology/**.

CORNELL

Computational, Statistical, and Evolutionary Genomics
at Cornell University

Applications are sought from outstanding candidates for tenure-track faculty positions in computational, statistical, and evolutionary genomics as part of the larger Cornell Genomics Initiative, which also includes emphases in plant, mammalian, and microbial genomics and nanobiotechnology. Outstanding facilities and set-up packages are available for these positions. A description of the initiative, complete job descriptions, and contact information can be found at *www.genomics.cornell.edu*.

Statistical and Computational Genomics

Cornell University is excited to announce the formation of a new Department of Biological Statistics and Computational Biology. This new department will focus on biological statistics, statistical and computational genomics, and computational and mathematical modeling of biological systems. Multiple faculty positions will be filled over the next few years. The current search targets two people (one to be hired as chair of the department). Applicants should have research interests in (1) statistical methodology, with a demonstrated expertise in applications involving at least one area of the biological or environmental sciences, and (2) statistical and computational genomics. Appointees will be expected to participate in campus-wide interdisciplinary programs such as the Cornell Genomics and Environmental Initiatives. The successful chair candidate must have an exemplary record of research appropriate for the title of full professor at a major research institution.

Computational Modeling of Cells

The growing number of sequenced genomes provides a rational basis for understanding the regulation of pathways associated with metabolism, signal processing, and cellular growth. Understanding the regulation of these complex networks and cellular responses to genomic and environmental perturbations underlies the design of drugs, drug delivery, tissue engineering, and bioprocesses for the manufacture of biologicals. Computational approaches, mathematical models, and systems engineering approaches are critical tools for organizing and understanding genomic information and its relationship to cellular function. Candidates with these interests are encouraged to apply for a tenure-track position targeted for the School of Chemical and Biomolecular Engineering but which would interface closely with the Departments of Computer Science and Applied Mathematics and other Cornell departments with a focus in the life sciences. The appointment level is open.

Bioinformatics

Applications are invited for a tenure-track, assistant professor position in the use and development of databases in biology. Applicants should have a Ph.D. in mathematical sciences, computer science, biology, or engineering. The position bridges different disciplines, and the successful candidate must demonstrate research accomplishments at the highest level in the field. The position is a part of the genomics initiative at Cornell-Ithaca and a tri-institutional collaboration (Rockefeller, Sloan Kettering, and Cornell/Weill Medical College) in computational biology. The departmental home of the Cornell position is open and will be decided based on the interests and qualifications of the successful candidate.

Computer Science and Computational Biology

Applicants at all ranks are sought for an interdisciplinary, tenure-track position in computational biology. The applicant should have a very strong background in computer science as well as a strong background and research interest in the computational aspects of biology. Research may include topics such as the development of genomic databases, bioinformatics, and structural biology. We are seeking candidates with outstanding research accomplishments who are committed to excellence in teaching computer science. This appointment will be in the Department of Computer Science.

Population Genetics and Evolutionary Genomics

Applications are sought for a tenure-track faculty position in the molecular and quantitative aspects of population genetics and comparative and evolutionary genomics. The appointment level is open, and outstanding junior candidates are encouraged to apply. Individuals who will contribute to campus-wide programs in evolutionary, comparative, mammalian, and/or computational genomics are of particular interest. The successful candidate is expected to participate in undergraduate and graduate teaching in population genetics, comparative genomics, or evolutionary genomics. The likely departmental home is the Department of Molecular Biology and Genetics.

Human Population Genetics/Epidemiology

Applications are sought from candidates who have an interest in applying their expertise in human population genetics and/or epidemiology to investigate gene-nutrient interactions in health and disease, the effects of single nucleotide polymorphisms on nutritional requirements, the relationships between nutrition and human genetic diversity, or other metabolic questions with nutritional implications. This position is open at the assistant professor level in the Division of Nutritional Sciences.

Additional positions are open in comparative mammalian genomics, functional mammalian genomics, plant developmental biology, and plant molecular biology. See www.genomics.cornell.edu for full descriptions and application information, or contact Professor Charles Aquadro at CFA1@CORNELL.EDU. Review of applications will begin immediately and will continue until the positions are filled.

genomics INITIATIVE CORNELL

nature structural biology

seeks an **EDITOR**

Nature Structural Biology seeks to appoint an editor to succeed Tracy Smith, who is stepping down after four years with the journal. This challenging job represents a unique opportunity to influence the development of a major scientific journal, both in print and on-line.

Nature Structural Biology was founded in 1994, and has established itself as the most prestigious and influential journal in its field. It publishes research papers of exceptional significance in all areas of structural biology, with a strong emphasis on understanding biological processes at the molecular level. The new editor will be expected to maintain and enhance the journal's reputation, and to play a leading role in shaping its future.

The editor is responsible for all aspects of editorial content, including research articles, news and views, reviews and editorials. A strong research background and publication record is essential, and preference will be given to candidates with a broad knowledge of molecular and cell biology as well as specific expertise in structural biology. Editorial and managerial experience would both be advantageous, but the most important attributes will be breadth of intellectual interests, enthusiasm for communicating science to a broad readership, and excellent judgment across a broad range of biological topics.

As a visible member of the international scientific community, the editor will be expected to develop an extensive network of contacts, and to attend scientific meetings in the US and elsewhere. He/she will be responsible for managing the in-house editorial team, and for overseeing the editorial and production process. The editor will also be expected to work with colleagues in other departments to contribute to the overall publishing strategy for *Nature Structural Biology* and Nature Publishing Group as a whole.

This is a full time job, based in Manhattan. It offers a competitive salary and benefits package, an intellectually stimulating environment (*Nature Structural Biology* shares a lively editorial office with *Nature Genetics*, *Nature Medicine*, *Nature Biotechnology*, *Nature Neuroscience* and *Nature Immunology*), and easy access to the incomparable amenities of New York City.

Please send a resume, a short (500-1000 words) News and Views style article on an exciting and newsworthy recent development in any area of structural or molecular biology, and a cover letter explaining your interest in the position, to: M. Maddock, Human Resources Dept., 345 Park Avenue South, New York, NY 10010 (fax 212-696-9594; email admin@natureny.com), to arrive **no later than December 2, 2001**.

nature medicine

seeks an **Assistant Editor** to join its full-time editorial group in New York City.

The position offers an exciting and challenging opportunity to enter the world of scientific publishing while remaining at the forefront of research. Members of the editorial team oversee the selection and preparation of research articles published in *Nature Medicine*; they also commission Commentaries and Reviews and write news items and editorials for the journal. They attend meetings, visit laboratories and maintain alliances with the international scientific community.

We are seeking a Ph.D.-qualified biomedical researcher with broad-based interest and expertise in the areas represented in *Nature Medicine*. The ideal candidate should have postdoctoral research experience and publications in peer-reviewed journals, excellent written and oral communications skills, good standing in the community and a commitment to the communication of science. We are particularly interested in applicants with expertise in Immunology but we would welcome applications from outstanding candidates in any area of biomedical research.

Please submit a curriculum vitae, a concise cover letter explaining your interest in the post and a 600-word News & Views style article on an exciting and newsworthy recent development in any area of biomedical research, to:

M. Maddock, Human Resources Dept.,
345 Park Avenue South, New York, NY 10010
(fax 212-696-9594; email admin@natureny.com)

The deadline for application is 3 December 2001.

COUNCIL ON SCIENCE AND TECHNOLOGY POSTDOCTORAL TEACHING FELLOWS PROGRAM at PRINCETON UNIVERSITY

The Council on Science and Technology at Princeton University is seeking applicants for its Postdoctoral Teaching Fellows Program. The program is designed to provide from one to three years of stipend support to postdoctoral fellows who wish to obtain further training in both research and teaching. The fellows will be involved in curriculum development, instructional laboratory design and lecturing and will work closely with an experienced master teacher. In addition, the Fellow will conduct research with a Princeton University science or engineering faculty member. The goal of the program is to prepare candidates for careers in both research and teaching.

Eligible candidates should have a Ph.D. or equivalent degree in one of the physical and natural sciences, or engineering, and be both interested and have previous experience in undergraduate teaching at a U.S. university. Before applying, applicants must first identify a research mentor from among the Princeton University science and engineering faculty, and obtain his or her agreement to act as research advisor. Applications should include a c.v., publication list, teaching and research experience, teaching objectives and proposed research plans at Princeton University and three letters of recommendation (as indicated in the application forms). Candidates will be evaluated on the basis of their previous teaching and research accomplishments, as well as their proposed research plans at Princeton University. The stipend will be commensurate with experience. Princeton University is an equal opportunity/affirmative action employer. Applications are currently being accepted for Fellows to begin in the fall of 2002. Review of applications will begin January 1, 2002. Applications can be downloaded from the Council's Web Page (http://www.princeton.edu/~stcweb/) or requested from:

Carol Prevost
The Council on Science and Technology
5 Peyton Hall
Princeton University, Princeton, NJ 08544
Tel.: (609) 258-4316, FAX: (609) 258-1020
Email: cprevost@princeton.edu

The U.S. Department of Agriculture (USDA), Center for Plant Health Science & Technology (CPHST), of Raleigh, NC is accepting applications for the following:

National Science Program Leader – Integrated Pest Management

Responsibilities entail a broad range of planning, coordination, and oversight activities of central importance to the long-range program direction of Integrated Pest Management efforts involving biological control, chemical control, cultural practices and use of mechanical control. Applications in response to this position vacancy must be marked Announcement #24-77-1380 and postmarked by December 3, 2001.

National Science Program Leader – Risk and Pathway Analysis

Responsibilities entail a broad range of planning, coordination, and oversight activities of central importance to the long-range program direction of Risk and Pathway Analysis. Applications in response to this position vacancy must be marked Announcement #24-77-1381 and postmarked by December 3, 2001.

National Science Program Leader – Biotechnology

Responsibilities entail a broad range of planning, coordination and oversight activities to develop and utilize new biotechnology advances in its Safeguarding mission. Applications in response to this position vacancy must be marked Announcement #24-77-1382 and postmarked by December 3, 2001.

National Science Program Leader – Survey, Detection, and Eradication

Responsibilities entail a broad range of planning, coordination, and oversight activities of central importance to the long-range program direction of scientific activities associated with the pest surveys, detection, and eradication technology. Applications in response to this position vacancy must be marked Announcement #23-77-1383 and postmarked by December 3, 2001.

Associate Director

The incumbent participates in the overall planning, coordination, and direction of development and transfer of technology. Applications in response to this position vacancy must be marked Announcement #24-77-042 and postmarked by December 3, 2001

Applicants must have a Bachelor's or higher degree in biological science, agriculture, natural resource management, chemistry, or related disciplines. In addition, applicants must have one year of specialized experience in the range of duties outlined above. Salary is commensurate with experience ($85,832 to $111,581). A separate application is needed for each announcement number. US citizenship is required. Complete vacancy announcements containing more information on experience and competencies can be obtained at website:www.opm.gov/forms/pdfimage/of0510.pdf or www.usajobs.opm.gov or call (919)513-2668 to request a copy of the announcement. All applications must be mailed or faxed by due date to: **USDA, MRP, Minneapolis Business Site, Staffing, 100 North Sixth St., #510C, Minneapolis, MN 55403, Fax:(612)370-2366** *Do not use government postage paid envelopes.

USDA is a Equal Opportunity Employer.

Tenure Track Faculty Position
Department of Biochemistry
Emory University
School of Medicine

The Department of Biochemistry, Emory University School of Medicine invites applications for a tenure track faculty position at any academic rank. The Department has faculty with research interests that span a wide breadth of Biochemistry. The successful candidate will be expected to establish a rigorous, well-funded, and nationally recognized research program and will participate in medical and interdisciplinary graduate training. Outstanding candidates in any area of modern biochemical investigation (including macromolecular assemblies, structural biology, proteomics, etc.) are encouraged to apply.

Applications should include a current C.V. and a 2-page description of research plans. The applicant should also arrange to have 3 letters of recommendation sent. If possible, application materials and letters of reference should be sent electronically to: daduke@emory.edu. Alternatively, they can be mailed to: **Chair of the Search Committee, Department of Biochemistry, 1510 Clifton Road, Emory University, Atlanta, GA 30322**. Applications will be considered until the position is filled.

Visit our web page at
http://www.biochem.emory.edu

Emory University is an Equal Opportunity/ Affirmative Action Employer.

Department of Neurological and Vision Sciences
Section of Physiology

University of Verona (Italy)

Postdoctoral Positions in Cognitive Neuroscience

A **new** initiative is being launched to investigate the neuronal mechanisms underlying ***visual selective attention*** and ***the controlled coupling of vision and action*** through the recording of single neurons and local field potentials from the brain of awake, behaving monkeys.

Applications are invited for two 3-year postdoctoral fellowships, available immediately, funded by the Human Frontier Science Program Organization and by the Italian Government.

Candidates are expected to possess a solid background in cognitive neuroscience and good programming and data-analysis skills. A proficient knowledge of the English language is required.

Candidates should send a curriculum vitae, together with a list of publications, summary of research interests, and the names of two referees to:

Leonardo Chelazzi, M.D., Ph.D.

Department of Neurological and Vision Sciences
Section of Physiology, University of Verona
Strada Le Grazie 8, I-37134 Verona, ITALY
Tel: ++39-045-8027149
Fax: ++39-045-580881
Email: leonardo.chelazzi@univr.it

The deadline for submitting the applications is December 31st, 2001.

NIMH National Training Program in Complex Systems and Brain Sciences at Florida Atlantic University Predoctoral Fellowships

Predoctoral fellowships are available, funded by NIMH Division of Basic Brain and Behavioral Sciences. Individuals with undergraduate degrees in any pertinent discipline are invited to apply for this 5-year training program leading to the Ph.D. degree in Complex Systems and Brain Sciences, and administered through the Center for Complex Systems and Brain Sciences. The aim of the Program is to couple theoretical concepts and methods for handling complex systems to specific experimental research in the cognitive and brain sciences.

Graduate training consists of a core curriculum in nonlinear dynamics, neuroscience, computational modeling and cognitive science. Research areas include sensorimotor coordination and learning, human brain imaging, including on-site functional magnetic resonance imaging, EEG, brainstem mechanisms of behavior, neural growth and development, ion channel dynamics, speech production and perception, neurolinguistics, visual perception, music perception and mathematics of complex systems.

Applicants should send a letter of interest, GRE scores, vitae and 3 letters of reference to: **Rhona Frankel, Center for Complex Systems and Brain Sciences, Florida Atlantic University, 777 Glades Road, Boca Raton, FL 33431. E-mail: frankel@walt.ccs.fau.edu. Please visit our web-site at http://www.ccs.fau.edu**

Dr. Josetta Wilkins Chair of Breast Cancer Research
and
Director of Basic Research for Breast Cancer
Arkansas Cancer Research Center
University of Arkansas for Medical Sciences

The Arkansas Cancer Research Center (ACRC) seeks an outstanding, experienced scientist (PhD or MD/PhD) for the Dr. Josetta Wilkins Chair of Breast Cancer Research. The Chair will be expected to lead the basic breast cancer research program. Demonstrated skill in coordinating and promoting teams of basic scientists is very important. Applicants must have peer-reviewed funding in basic laboratory investigations of breast cancer, experience in scientific peer-review, and a strong publishing record.

The ACRC has a developing program in basic investigation of breast cancer and seeks a program director to bring expertise in planning, organizing, and conducting multidisciplinary studies of basic mechanisms associated with disease continuum. Located in a new 175,000 square-foot building in the center of the University of Arkansas for Medical Sciences (UAMS/Veterans Administration Medical Center (VAMC)) campus, ACRC laboratories are spacious state-of-the-art facilities. Patient clinics, which attract more than 5,000 new patients each year, are located near laboratories and extensive epidemiologic databases, offering an exciting scientific environment that facilitates translational research. Basic and clinical researchers at the ACRC have earned federal and private funds supporting breast cancer research in the areas of nutrition, genetics, mechanisms of metastasis, osteoporosis in breast cancer patients, and clinical trials. In addition, the State of Arkansas recently appropriated significant funding for breast cancer research. The strong collaborative relationships among ACRC, UAMS and VAMC researchers will benefit a centrally coordinated effort.

Generous start-up funds are available to support experienced post-doctoral fellows, technical personnel, and equipment purchases. This tenured associate or full professor position will be available immediately. Applicants must be US citizens or permanent residents of the US. Please submit your curriculum vitae, a statement of areas of interest, expertise and strengths, and the names of three professional references to:

V. Suzanne Klimberg, MD
Arkansas Cancer Research Center
University of Arkansas for Medical Sciences
4301 West Markham, Slot 725
Little Rock, AR 72205

ACRC and UAMS are Equal Opportunity/Affirmative Action Employers, encourage applications from women and members of minority groups, and provide a smoke-free work environment.

PENNSTATE

Faculty Positions in Structural Biology & Genomics/Proteomics/Bioinformatics

The Department of Biochemistry and Molecular Biology at Penn State invites applications for two tenured/tenure-track positions at Assistant, Associate or Full Professor levels in (a) Structural Biology and (b) Genomics, Proteomics and/or Bioinformatics. For the first position, we are particularly interested in individuals using structural biology methods such as macromolecular crystallography to address biologically important questions. The second position, co-funded by the Penn State Life Sciences Consortium, is open to candidates conducting innovative research that integrates computational methods and biochemistry and/or genetics to address fundamental issues in genomics.

Applications should include current curriculum vitae, a summary of past research experience, and a statement of future research goals. In addition, three letters of reference should be sent to: **Chair, Structural Biology Search, Box SS or Chair, Genomics/Proteomics/Bioinformatics Search, Box GS, Dept. of Biochemistry & Molecular Biology, 108 Althouse Laboratory, The Pennsylvania State University, University Park, PA 16802.** Completed applications received by January 7, 2002 will receive priority.

Penn State is committed to Affirmative Action, Equal Opportunity and the diversity of its workforce.

WestVirginiaUniversity
ROBERT C. BYRD HEALTH SCIENCES CENTER

Director of Research
Eye Institute of West Virginia University

Applications and nominations are invited for the position of Director of Research for the Eye Institute of West Virginia University, and Professor, WVU School of Medicine. The Eye Institute is housed in a new 55,000 square foot building with shell space for construction of state-of-the-art research laboratories and core facilities. New faculty lines will be available to the Director to build a strong collaborative research team. The School of Medicine has defined two major research foci, cancer and neurosciences, and candidates that bring strength to an ophthalmologic neuroscience focus will be given the highest priority. Potential cross appointments to basic science departments in the School of Medicine will provide access to strong Ph.D. programs for members of the Eye Institute's research team.

Qualifications: (1) Ph.D. or M.D. in a relevant area of science or medicine with a demonstrated record of scholarly accomplishment and funded research; (2) the vision and energy needed to direct a sustained research endeavor; (3) active funding from federal agencies, particularly the NIH; (4) highly effective interpersonal skills that will enable him/her to work cooperatively with the faculty from diverse disciplines; and (5) experience or interest in administration.

West Virginia University is a land-grant, comprehensive doctoral granting institution, and a Carnegie Doctoral/Research University - Extensive. The main campus, including the Robert C. Byrd Health Sciences Center, has about 22,000 total students, of which 6000 are graduate students and 1100 are professional students. The Health Sciences Center is a comprehensive health science center with Schools of Medicine, Nursing, Dentistry, Pharmacy, Mary Babb Randolph Cancer Center (www.hsc.wvu.edu/mbrcc/) and the Blanchette Rockefeller Neuroscience Institute (www.brni.org).

WVU is located in Morgantown, WV, a community of about 80,000 with ready access to Pittsburgh, PA and Washington, D.C.

The review of applications will begin November 15, 2001 and will continue until a suitable candidate is identified. Applicants should include a letter describing their qualifications for the position, a vision of the research program they would develop and current vitae with the names of at least four references. Applications or nominations should be directed to: **John B. Barnett, Ph.D., Chair, Search Committee, c/o Ms Tammy Miller, Department of Ophthalmology, West Virginia University Health Sciences Center, PO Box 9193, Morgantown, West Virginia 26506-9193 or jbarnett@hsc.wvu.edu.**

West Virginia University is an Affirmative Action/Equal Opportunity Employer.

BECKMAN INSTITUTE FELLOWS PROGRAM

Applications are invited for postdoctoral fellowships at the Beckman Institute for Advanced Science and Technology at the University of Illinois at Urbana-Champaign.The Beckman Institute is a multi- and interdisciplinary research center that focuses on three main research themes: Biological Intelligence, Human-Computer Intelligent Interaction, and Molecular and Electronic Nanostructures (**www.beckman.uiuc.edu**).

The Beckman Institute Fellows Program provides an excellent opportunity for young scholars to initiate a post-Ph.D. career of independent research in a stimulating and supportive interdisciplinary environment. The fields of research encompassed by the fellowship program include the behavioral and biological sciences, chemistry, physics, and engineering.

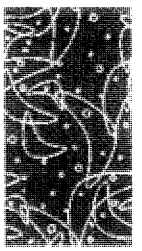
Year 2002 Fellows will be appointed for up to three years, beginning as early as June 2002, and no later than December 31, 2002. The stipend is $48,000/year, plus benefits and a research budget. Selection of Fellows is based on evidence of professional promise, capacity for independent work, outstanding achievement to date, and interdisciplinary research interests corresponding to one or more of the Institute's programs. To be eligible, the Ph.D. must have been received no earlier than December 1998.

APPLICATION PROCEDURE: Application packets should be requested from: laborg@uiuc.edu or Melinda LaBorg at 217-244-4906. Please include your full mailing address.

DEADLINE: A postmark of no later than Friday, January 4, 2002. Announcement of Fellows on or about April 15, 2002.

The Beckman Institute Fellows Program is supported by funding from the Arnold and Mabel Beckman Foundation.

2002



Molecular/Cell Biologist with Expertise in the Cell Cytoskeleton, University of Chicago

The Section of Pulmonary and Critical Care Medicine at the University of Chicago invites applications for a tenure-track position at the Assistant/Associate Professor level. Candidates will be expected to have PhD or MD-PhD training and expertise in the investigation of cellular responses to external stimuli and mechanisms of intracellular signaling, with special emphasis on the role of the cytoskeleton in cellular responses to external stimuli. Recruits are expected to demonstrate high promise for establishing an independently funded research program of relevance to critical illness and human airway disease. Collaboration with active investigations of cellular responses to hypoxia, asthma immunology, airway remodeling, and airway inflammation are expected.

Interested applicants should send a curriculum vitae, letter of interest with research goals, and names of three references to: **Jesse Hall MD, Section Chief, Pulmonary and Critical Care Medicine, MC 6026, University of Chicago, 5841 South Maryland Avenue, Chicago, IL 60637** (email: jhall@medicine.uchicago.edu).

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

University of California, Santa Barbara
Biomaterials, Biomolecular Materials, Bioengineering

The University of California, Santa Barbara seeks to hire highly creative, innovative and productive individuals for multiple new faculty openings at the junior and senior levels in fields related to Biomaterials, Biomolecular Materials and Bioengineering. UCSB is broadening the interfaces among biology, physical science and engineering and is developing a vigorous interdisciplinary and intercollegiate Program in BioMolecular Science and Engineering (BMSE). This Program builds on and is an integral part of UCSB's unique environment for multidisciplinary collaboration, and its recognized strengths in Materials, Chemistry and Biochemistry, Chemical, Mechanical, Electrical and Computer Engineering, Computer Science, Physics, Molecular and Cellular Biology and Device and Nanosystems Science and Technology. UCSB's core strengths are supported and enhanced by a collection of interdisciplinary research and education centers, including the California NanoSystems Institute, the NSF-sponsored Materials Research Laboratory and Institute for Theoretical Physics, the Neuroscience Research Institute, the Marine Science Institute and the Marine Biotechnology Center. The facilities available to carry out research in these fields at UCSB are superb. The positions advertised here are in addition to positions in related areas being advertised by the UCSB Department of Chemistry and Biochemistry, though there is coordination between the searches. Suitably qualified candidates are welcome to apply to both calls.

Research and new instructional initiatives in biomaterials, biomolecular materials and bioengineering are being formulated to build on and enhance current associated strengths. The new faculty appointments may be in BMSE, or in the departments mentioned above, or in some combination of these administrative units, in order to optimize the effectiveness of each hire. Applications from individuals from all disciplinary backgrounds with interests in the areas of Biomaterials, Biomolecular Materials and Bioengineering are encouraged. Specific areas of interest include, but are not limited to: biomolecular materials, motors, machines and electronics, bio-sensors and other bio-devices, biosynthesis and genetic engineering of materials, bio-nanotechnology, metabolic engineering and bioinformatics. Individuals appointed will come in with the opportunity for and expectation of active participation in shaping future hiring and other developments, commensurate with the individual's background and experience.

Application for the positions is open until they are filled. Consideration of candidates will begin immediately; those received by January 1, 2002 will be considered thoroughly for the first round of interviews. Please address all applications, which should contain a letter briefly outlining career plans, a statement of research and teaching interests, curriculum vitae and names and contact information on 3-5 references, or have letters of reference sent directly, to: **Bioengineering Search Committee, Matthew Tirrell and Daniel Morse, Co-Chairs, Attention: Vivien LaFrance, Dean's Office, College of Engineering, University of California, Santa Barbara, CA 93106.**

Applications may be sent via electronic mail in PDF format to: bioengr@engineering.ucsb.edu

An EO/AA Employer.

THE PENNSYLVANIA STATE UNIVERSITY

Two Open Rank Molecular Evolutionary Genetics Faculty Positions

The Department of Biology at The Pennsylvania State University (www.bio.psu.edu) invites applications from outstanding candidates for two open rank faculty positions in theoretical, computational, or empirical analysis of evolutionary processes at the molecular level. Research areas include, but are not limited to, population genetics, computational or comparative genomics, and the molecular basis of phenotypic evolution. The successful candidates will join an interactive group of researchers in the Institute of Molecular Evolutionary Genetics. Responsibilities include maintenance of a vigorous research program, participation in graduate and undergraduate teaching, and supervision of graduate students.

Applicants should submit a letter of interest, curriculum vitae (including a description of current and projected research and a summary of teaching interests and experience), copies of no more than seven published or in-press papers, and the names and contact information of three references to: **Dr. Stephen W. Schaeffer, Chair, Molecular Evolutionary Genetics Search Committee, c/o Ms. Lisa Stock, Box A, 208 Mueller Laboratory, Department of Biology, Penn State University, University Park, PA 16802.** Screening of applicants will begin on December 1, 2001 and continue until the positions are filled.

AA/EOE

Tenure Track Investigator Position in Signal Transduction Laboratory of Molecular Biology NIDDK, NIH

The Laboratory of Molecular Biology of the National Institute of Diabetes and Digestive and Kidney Diseases, NIH, invites applications for a tenure-track (assistant professor equivalent) investigator position in the general area of signal transduction. We seek an individual who will establish an independent research program using innovative technologies to understand regulatory mechanisms at the level of protein function.

The LMB is a multidisciplinary laboratory similar to an academic department. The LMB emphasizes the integration of structural and molecular approaches to biological questions. Ample laboratory space will be located in the newly constructed state-of-the-art building 50, housing laboratories from several NIH Institutes engaged in x-ray and electron crystallography, cryoelectron microscopy, NMR, mass spectrometry, computational biology, biochemistry, molecular and cell biology, and genetics and genomics. The incumbent will be provided with ample support for the staffing and operation of an independent research group, without the need to obtain external funding. The position carries no teaching obligations. Applicants should have a doctoral degree and postdoctoral training.

Send applications to: **Dr. James H. Hurley, Signal Transduction Search Committee, Bldg. 5 Rm. 324, LMB, NIDDK, NIH, Bethesda, MD 20892-0560**. To apply, send cv, summary of proposed research, and arrange for 3 letters of reference to be sent separately no later than November 30, 2001.

The current LMB faculty are listed at **http://www.niddk.nih.gov/intram/branchlb/lmb.htm**.

Symposia

University of Cincinnati

The Eighth CINCINNATI NEUROFEST

NEURODEVELOPMENT AND BRAIN FUNCTION APRIL 12-13, 2002

This symposium will highlight recent advances in our understanding of the signals and factors that control nervous system development, and how that knowledge may be applied to the study of brain diseases. Topics will include plasticity, axon guidance, stem cells, drosophila models, cell determination and fate, cell migration and glia. Guest speakers include **Zach Hall, Anders Bjorklund, Pasko Rakic, Frank Walsh, Arturo Alvarez-Buylla, Christopher Walsh, Liqun Luo, Nancy Ratner, and Holly Kline.**

The symposium will include a poster session and evening social program. For details and registration information, see **http://neuroscience.uc.edu** or contact: **University of Cincinnati College of Medicine, Department of CME, P.O. Box 670567, Cincinnati, Ohio 45267-0567. Fax: 513-558-1708; Telephone: 513-558-2827; E-mail: deborah.cummins@uc.edu**

McGill

UNIVERSITÉ McGILL
Faculty of Medicine/Faculté de médecine

In order to complement and enhance its strengths in biochemistry and molecular & cell biology, McGill University has undertaken major developments in proteomics, bioinformatics, genomics and structural genomics with substantial funding from Genome Quebec, Genome Canada and the Canadian Foundation for Innovation. We are seeking talented investigators with interests in cell biology, molecular biology, human and mouse genetics, microbiology, biochemistry, and physiology whose work could benefit from and enhance these major initiatives.

Research in the Basic Science Departments of the Faculty of Medicine is organized in four major themes: structural biology, integrative genomics, cellular information systems and molecular medicine. To support these developments, we are also soliciting applications for tenure track positions from scientists and engineers capable of developing the enabling technologies for high volume experiments and analyses. We seek individuals who have or will establish strong, independently funded research programs in specific areas including: data base development, data mining, nanotechnology, MEMS, robotics, mass spectrometry, imaging, chemical biology, bioinstrumentation, biosensors, x-ray crystallography and NMR, micro- and nano-bioinstrumentation, molecular and cellular imaging.

Candidates will be considered for the new Canada Research Chairs, as appropriate. This search for talented individuals with interests and skills in interdisciplinary research is being conducted as a collaborative effort of the following departments.

- **Anatomy and Cell Biology**
- **Biochemistry**
- **Biomedical Engineering**
- **Cancer Center**
- **Pathology**
- **Physiology**
- **Microbiology & Immunology**
- **Human Genetics**
- **Pharmacology & Therapeutics**
- **Epidemiology & Biostatistics and Occupational Health**

Joint appointments are also possible with Departments in the Faculties of Science and Engineering, including: Computer Science, Chemistry, Physics, Chemical Engineering, Electrical and Computer Engineering, and Mechanical Engineering.

The successful candidates will be appointed in the Department(s) most appropriate to their interests, field of research and potential for fruitful collaborations. The successful applicants will be members of, and expected to contribute to, the research and teaching missions of one or more of the Basic Science Departments of the Faculty of Medicine.

Please send a curriculum vitae, a short statement of research interests and the names of three referees to:

Dr. Abraham Fuks, Dean
Faculty of Medicine
McGill University
McIntyre Medical Sciences Building
3655 Promenade Sir William Osler
Montréal, QC H3G 1Y6

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

The LSUHSC Gene Therapy Program in association with the LSUHSC Department of Genetics is recruiting Post-doctoral positions in the following six areas

1) Dr. Frank Park's Lab: Renal gene transfer using HIV-1 based lentiviral vectors. Candidates should have a recent Ph.D. and a strong background in rodent surgery and renal microdissection along with basic molecular biological techniques. **Mol Ther 2001 Sep;4(3):164-73 and Nat Genet 2000 Jan;24(1):49-52.**

2) Dr. Alistair Ramsay's Lab: DNA- and viral vector-mediated gene transfer of immune modulator molecules in (i) pulmonary allergic disease and (ii) virus infection. Candidates should have a recent PhD with a strong background in immunology and sound knowledge of basic molecular biological techniques. **Immunol Today 2000 Apr;21(4):163-5, Immunol Rev. 1999 Oct;171:27-44, and J. Immunol. 1999 Jan;162:445-452.**

3) Dr. Guoshun Wang's Lab: Viral vector development for lung gene therapy. Candidates should have a recent Ph.D. and a strong background in molecular biology and virology. **J Virol. 2000 Oct;74(19):9234-9 and J Clin Invest. 1999 Dec;104(11):R55-62.**

4) Dr. Paul Schwarzenberger's Lab: Gene transfer to hematopoietic stem cells. Cytokine based regulation of hematopoeisis. **J Immunol. 2000 May 1;164(9):4783-9 and J Biol Chem 2001Jul 6;276(27):24601-7.**

5) Dr. Ed Grabczyk's Lab: Oligonucleotide mediated therapy for DNA triplet expansion disease such as Friedreich's ataxia. **Nucleic Acids Res 2000 Jul 15;28(14):2815-22 and Nucleic Acids Res 2000 Dec 15;28(24):4930-7.**

6) Dr. Jay Kolls' Lab: Gene modified dendritic cells for infectious diseases. **J Clin Invest. Nov 2001 and J Immunol. 162:2890, 1999.**

Please indicate which laboratory you are applying to and send curriculum vitae and three letters of recommendation to: **Ms. Sharon Lee;** e-mail: **(slee5@lsuhsc.edu)** or by mail: **Louisiana State University Health Sciences Center, Gene Therapy Program, 533 Bolivar St. CSRB, New Orleans, LA 70112.**

LSU is an Equal Opportunity Employer.

The Polytechnic University Announces The Opening of The Joseph J. and Violet J. Jacobs Distinguished Chair of Chemical Engineering

The Polytechnic University, the second oldest private institution of science and technology in the United States, is delighted to issue a call for nominations and direct applications to the Joseph J. and Violet J. Jacobs Distinguished Chair of Chemical Engineering. We aim to attract to this chair, endowed with 2.5 million dollars, an individual with an internationally recognized record of research accomplishments in chemical engineering, preferably related to or overlapping with bioengineering. The desired candidate should have a strong interest in undergraduate and graduate education and the ability and energy to build a first class research activity at Polytechnic. Polytechnic has just successfully finished a $300 million capital campaign, which included a bequest of $175 million dollars by Donald F. Othmer, a Polytechnic Professor of Chemical Engineering, and his wife, Mildred Topp Othmer. The most recent addition to the faculty has been Professor Christos Georgakis who has been appointed to the Othmer Distinguished Chair and named Department Head effective January 1, 2002. For additional information visit: http://chem.poly.edu. Nominations and/or applications should be sent to **Professor Jovan Mijovic (jmijovic@poly.edu) or 718 260-3097),** secretary, or to **Professor Christos Georgakis (cgeorgak@poly.edu)** chair of the search committee. All applications and nominations related to this outstanding opportunity will be handled with the utmost discretion and confidentiality.

Polytechnic University is an Affirmative Action/Equal Opportunity Employer.

ASSISTANT PROFESSOR
GENETICS AND THE NERVOUS SYSTEM
Biology Department
Boston College

We seek a colleague developing a research program that employs ***genetic approaches to understanding development, function and/or dysfunction of the nervous system***. This colleague will direct a creative, externally funded research program, in which genetic methodology plays a central role. Scientists working in genetically tractable invertebrate or vertebrate systems are invited to apply.

The appointee will benefit from the recent $80 million expansion and complete renovation of Higgins Hall, home to the Biology Department, and a commitment to departmental expansion including an increase in faculty-line strength in Biology over the next five years, in conjunction with the recent appointment of an external chair for the department. The university and department provide extremely competitive start-up packages to new faculty, who will benefit as well from expanding infrastructure for biochemical, molecular and cell biological, and genetic research.

Our new colleague will join a department with established and growing research strengths in neuroscience, cell cycle, vector and insect science, and signal transduction. Current faculty in Biology pursue research in a variety of systems, including yeast, sea urchins, flies, frogs, and mice. The successful candidate will also be expected to train graduate students and contribute to the undergraduate (B.S.) and graduate (M.S. and Ph.D.) teaching missions of our department.

Applicants should submit a curriculum vitae, a research plan, and a statement of teaching interests, along with the names and contact information for four references to: **Dr. Marc Muskavitch, c/o Faculty Search Committee, Biology Department, Higgins Hall, Boston College, Chestnut Hill, MA 02467.**

This appointment will begin on or after July 1, 2002. Review of applications will begin December 1, 2001, and will continue until the position is filled.

Boston College is an Affirmative Action, Equal Opportunity Employer. Women and minority group members are encouraged to apply.

FACULTY POSITION
BACTERIAL PHYSIOLOGY

The Department of Microbiology at North Carolina State University invites applications for a 12-month, tenure-track faculty position at the Assistant or Associate Professor level. We are specifically interested in candidates with an active program in bacterial physiology and who have, or are developing, projects that use sequenced bacterial genomes to understand fundamental processes in metabolism. The candidate is expected to develop an active, extramurally funded research program. Teaching responsibilities will include a graduate/undergraduate-level course in Microbial Physiology and participation in the Department's General Microbiology course on a rotational basis. Advising graduate and undergraduate students, and involvement in other scholarly activities on campus is also required. The Department of Microbiology has excellent facilities and enjoys productive interactions with interdepartmental Genomic Sciences and Biotechnology programs; the technology transfer environment of NC State's Centennial Campus; regional academic and federal institutions; and bioscience companies in the Research Triangle Park. A complete description of the NCSU Department of Microbiology is available at www.mbio.ncsu.edu. Applicants must have a Ph.D. and demonstrated ability through at least two years of postdoctoral experience. To apply, please send a letter of application; curriculum vitae; reprints; statements of research and teaching focus; and names, along with postal, telephone, fax and email addresses, of three persons who may be contacted as references to: **Dr. Eric S. Miller, Chair, Faculty Search Committee, Department of Microbiology, Box 7615, NC State University, Raleigh, NC 27695-7615.** Closing date for receipt of all materials is December 31, 2001, or until a suitable candidate is identified. *NCSU is an Equal Opportunity/Affirmative Action Employer. Disabled applicants contact above individual.*

THE UNIVERSITY OF ARIZONA INSTITUTE FOR BIOMEDICAL SCIENCE AND BIOTECHNOLOGY

The IBSB, an interdisciplinary molecular life science program, is an exciting new venture that integrates research initiatives in the Colleges of Medicine, Pharmacy, Science, Agriculture and Life Sciences, and Engineering and Mines. The IBSB is among the highest priority initiatives for the University of Arizona and includes construction of a large research building to house IBSB programs and the establishment of a laboratory for Transgenic Models of Human Disease.

Applicants are invited for the following positions available after January 1, 2002. For full position details and qualifications, see postings at **http://www.hr.arizona.edu**

Assistant, Associate, or Full Professor Molecular Basis of Human Disease
Please submit a letter of application, a summary of research goals, a curriculum vitae, the names and contact information for three references, and three recent reprints to Search Committee Co-chairs Dr. Fernando Martinez and Dr. Vicki Chandler.

Assistant, Associate, or Full Professor Computational Biology and Bioinformatics
Please submit a letter of application, a summary of research goals, a curriculum vitae, the names and contact information for three references, and three recent reprints to Search Committee Co-chairs Dr. Michael Tabor and Dr. David Mount.

Director, Proteomics Core Facility
Please submit a letter of application, a summary of research and/or technology objectives and accomplishments, a curriculum vitae, and the names and contact information for three references to Search Committee Co-chairs Dr. Thomas O. Baldwin and Dr. Michael A. Cusanovich.

Please send all materials to the appropriate search committee chairs, care of: **Mrs. Helen Markes, Administrative Associate, Department of Biochemistry and Molecular Biophysics, The University of Arizona, P. O. Box 210088, Tucson, AZ 85721-0088**

Review of application materials is currently ongoing and will continue until the postions are filled.

The University of Arizona is an EEO/AA Employer-M/W/D/V

THE UNIVERSITY OF
ARIZONA®
TUCSON ARIZONA

DEPARTMENT OF NEUROSCIENCE UNIVERSITY OF MINNESOTA
Faculty Positions in Neural Stem Cell Biology

The Department of Neuroscience and the Stem Cell Institute at the UNIVERSITY OF MINNESOTA – Twin Cities invite applications for tenure-track positions at the Assistant/Associate Professor level. Both the Department of Neuroscience and the Stem Cell Institute are recently established academic/research units at the University of Minnesota and have combined resources and facilities to stimulate the advancement of basic science research on stem cells and their clinical applications. We are inviting researchers who want to pursue studies of stem cells, including embryonic stem cells or those derived from other tissues, to join an exciting, new cross-disciplinary effort in which neuroscience and stem cell research have become major targets of development and growth at the University of Minnesota. We encourage applications from investigators in all fields of inquiry that are relevant for understanding nerve/glial cell function through the use of stem cells. New laboratory facilities will be provided and tailored for each individual investigator. Faculty will have access to academic and graduate programs through our vigorous Graduate Program in Neuroscience as well as several other interdisciplinary programs that flourish at the University of Minnesota. The University of Minnesota in Minneapolis is located on an urban campus site which overlooks the Mississippi River and which houses many colleges in addition to the Medical School and Academic Health Center. Starting date negotiable.

Successful candidates will be expected to develop a strong, extramurally funded research program in the field of stem cell neurobiology. Salary and start-up funds will be competitive and commensurate with education and experience. Candidates must have a Ph.D. and/ or M.D. degree and must be US citizens or must be able to secure permanent residence status. See www.neurosci.umn.edu, www.neuroscience.umn.edu and www1.umn.edu/stemcell/sci/page/pg/patch2gar2v2-8_6.htm.

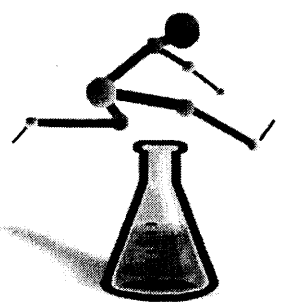
Applicants should send a current curriculum vitae, statement of research interests and intentions, and three letters of reference to:

Neural Stem Cell Search Committee
Attention: Joan Bailey
Department of Neuroscience, University of Minnesota
6-145 Jackson Hall, 321 Church Street, S.E.
Minneapolis, MN 55455 USA
or bail3y@umn.edu

Electronic versions of the required information may be e-mailed but must be followed with a hard-copy for the official search files. Review of applications will continue until the positions are filled.

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

Your Career in Motion.



Located in the heart of San Diego's biotechnology sector, Neurocrine is building a diverse product pipeline that lets us look to the future with confidence. We offer excellent opportunities to challenge your scientific expertise in a creative, entrepreneurial environment.

Sr. Scientist, Exploratory Discovery (GPCR)
- Min 5 years GPCR Biology and assay development experience
- PhD Receptor Pharmacology, Endocrinology or Cell Biology

Scientist, Molecular Biology (GPCR)
- Structure/function analysis, and strong molecular biology
- PhD, min 2 yrs post-doc or industry experience

Behavorial Scientist, Neuroscience
- Conduct in vivo pharmacology research
- Anxiety, feeding &/or bio-chemical modeling /testing
- PhD, min 2 yrs post-doc or industry experience

Sr. Research Associate, Neuroscience
- BS degree in Biology or related field
- 3+ years in vivo laboratory experience

Visit **www.neurocrine.com** to learn more about these and other open positions.

We are a financially sound company offering excellent compensation and benefits that include 401(k) match, 3 weeks vacation, stock option/purchase plan, and a team-oriented environment.

Please forward your resume to: **Neurocrine Biosciences, Inc., Attn: HR/Science, 10555 Science Center Dr., San Diego, California 92121; Fax: (858) 623-3397; Email: hr@neurocrine.com** EOE.

Neurocrine BIOSCIENCES

INDIANA UNIVERSITY SCHOOL OF MEDICINE

Indiana University School of Medicine, Division of Infectious Diseases, is recruiting an **ASSISTANT SCIENTIST** in the field of human papillomaviruses. This is a full-time, nontenure-track faculty position, working closely with an established Investigator in the field of HPV biology, pathogenesis, and immunology. The position includes start-up funds, modern laboratory facilities, salary, and benefits. Outstanding candidates interested in HPV pathogenesis are encouraged to apply. The appointee will be expected to maintain a vigorous research program and obtain independent funding. Successful candidates must have Ph.D. and at least three years of additional training/experience in HPV research or closely related field. For consideration, send curriculum vitae; letter of research interest; and three letters of recommendation before January 31, 2002, to: **Darron R. Brown, M.D., Professor of Medicine, Microbiology, and Immunology, Division of Infectious Diseases, Indiana University School of Medicine, 545 Barnhill Drive, EH 435, Indianapolis, IN 46202-5124.** *Indiana University is an Affirmative Action/Equal Opportunity Employer; Minorities/Females/Disabled.*

TWO ASSISTANT PROFESSOR POSITIONS BIOLOGICAL SCIENCES
Duquesne University

The Department of Biological Sciences seeks two Assistant Professors, tenure track, in the broad area of integrative biology including organismal, developmental, and evolutionary biology. The successful applicants are expected to establish vigorous, extramurally funded research programs involving graduate and undergraduate students and teach in an area of either physiology or phylogenetics. We are an interactive faculty committed to combining externally funded research with excellence in teaching. Our focus is on molecular, cellular, and genetic approaches to investigate problems in a diverse range of organisms, and we seek individuals who complement and extend these interests. Competitive salary and start-up packages are available. Additional information about the Department can be found at **website: http://www.science.duq.edu/biology**. To apply, send a cover letter, curriculum vitae, names and contact information of three references, and statements of research and teaching goals to: **Dr. Joseph McCormick, Faculty Search Committee Chair, Department of Biological Sciences, Duquesne University, Pittsburgh, PA 15282.** Review of applications will begin December 10, 2001. *Founded by the Holy Ghost Fathers, Duquesne University is Catholic in mission and ecumenical in spirit. The University values Equality of Opportunity both as an Educational Institution and as an Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE POSITION

Position available to investigate biomolecular mechanisms involved in reproductive actions. The project includes enzymatic, RIA hormone receptor mRNA, DNA microarray analysis, RT-PCR, immunofluorescence, *in situ* hybridization, and apoptosis determination. Send curriculum vitae and names of three references to: **Dr. Fitzgerald Spencer, Health Research Center, Box 9674, Southern University, Baton Rouge, LA 70813. E-mail: fitz@grant.phys.subr.edu.** *Southern University is an Equal Opportunity Employer.*

POSITIONS OPEN

ASSOCIATE/FULL PROFESSOR
Organic Chemistry
Department of Chemistry

The Department of Chemistry at Louisiana State University invites applications for a senior-level position in organic chemistry. Chemistry has been identified as one of the "foundations of excellence" at LSU and is slated for significant expansion and growth. Required qualifications: Ph.D. in chemistry or related field, an internationally recognized research program, and a commitment to exemplary teaching at the undergraduate and graduate levels. Additional qualifications desired: research interests in organic chemistry and/or high-throughput combinatorial synthesis, rational design of bioactive molecules, and bioenvironmental chemistry. It is desirable for the candidate to form strong ties to our Center of Information Technology, which is funded at approximately $8 to $10 million annually, and is a multidisciplinary effort to increase the high-tech infrastructure within the University. Appointment is anticipated to begin in the fall 2002 semester, preferably at the **FULL PROFESSOR** level; however, outstanding candidates at the Associate Professor level will be considered.

Applicants should send curriculum vitae and a description of research as well as the names of at least three references. Applications received before December 15, 2001, will receive full consideration; however, applications will be accepted until the position is filled. Interested candidates should send the required materials to:

Vickie Tate Thornton/McLaughlin
Department of Chemistry
232 Choppin Hall
Louisiana State University
Reference Log Number 0494
Baton Rouge, LA 70803
FAX: 225-578-3463

LSU is an Equal Opportunity/Equal Access Employer. Women and minorities are encouraged to apply.

ASSISTANT PROFESSOR, NEUROSCIENCE
University of Minnesota
School of Medicine, Duluth

The University of Minnesota School of Medicine, Duluth, is accepting applications from outstanding individuals to fill a position at the level of **ASSISTANT PROFESSOR** in the area of neuroscience. The position is a regular, 12-month, tenure-track position beginning in the summer of 2002. Candidates must have a Ph.D. or the equivalent (or M.D. with equivalent research background) and postdoctoral experience with a demonstrated record of research publication in the areas of neuropharmacology, neurophysiology, neuroendocrinology, or neurocommunication disorders.

Applications will be evaluated beginning November 30, 2001, and continue until the position is filled. Interested individuals should submit a letter of application, curriculum vitae, a succinct statement of proposed research interests and directions, and have three letters of recommendation sent under separate cover to:

Neuroscience Faculty Search Committee
Dr. Richard Eisenberg
University of Minnesota, Duluth
School of Medicine
Department of Pharmacology
1035 University Drive
Duluth, MN 55812

POSTDOCTORAL POSITION at Brigham and Women's Hospital/Harvard Medical School to investigate the molecular biology of Kaposi's sarcoma-associated, herpesvirus (KSHV or HHV8)-mediated oncogenesis. Strong background in molecular biology or biochemistry desirable. Send or e-mail curriculum vitae and names of three references to: **Dr. Kenneth Kaye, Channing Laboratory, Brigham and Women's Hospital, 181 Longwood Avenue, Boston, MA 02115. E-mail: kkaye@rics.bwh.harvard.edu.**

POSITIONS OPEN

CHAIRPERSON
Department of Mathematics
Morehouse College

Morehouse College invites applications for the position of Chairperson of the Department of Mathematics to begin July 31, 2002. Applicants should hold a Doctorate in mathematics and have appropriate research and teaching experience to qualify for a tenured appointment at either the **ASSOCIATE** or **FULL PROFESSOR** level. As an undergraduate institution, Morehouse values excellent teaching and mentoring. The successful applicant should demonstrate a capacity to assume a leadership role in the Department and will be expected to maintain an active research program and to have a strong commitment to enhancing the research capacity of the Department. For more information on the Department and College, visit our **website: http://www.math.morehouse.edu**. Full curriculum vitae; official graduate school transcript; and three letters of reference must be received by January 22, 2002, to:

J. K. Haynes, Ph.D.
Dean, Division of Science and Mathematics
Morehouse College
830 Westview Drive, S.W.
Atlanta, GA 30314

Morehouse College is an Equal Opportunity Employer.

FACULTY POSITIONS CARDIOVASCULAR DEVELOPMENT

The Center for Cardiovascular Development at Baylor College of Medicine invites applications for a tenure-track appointment at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. Applicants should have a Ph.D., M.D., or M.D./Ph.D. plus postdoctoral research training and should be qualified to direct independent, competitively funded research.

Areas of interest include stem cell biology, cardiogenic transcription factors, morphogens, positional information, pattern formation, signal transduction, growth control, vasculogenesis/angiogenesis, functional genomics, and the genetics of congenital cardiac or vascular disorders in humans.

Applicants should submit curriculum vitae, synopsis of research accomplishments and goals, and three letters of recommendation to:

Cardiovascular Development Search Committee
Baylor College of Medicine
One Baylor Plaza, Room 506D
Houston, TX 77030

Material can also be forwarded by **e-mail: michaels@bcm.tmc.edu** or **FAX: 713-798-7437**. The deadline for completed applications (including supporting letters) is March 1, 2000.

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

MICROBIOLOGIST/IMMUNOLOGIST

Simpson College invites applications for tenure-track **ASSISTANT PROFESSOR** beginning in August 2002. Ph.D. in either microbiology or immunology with teaching experience preferred. ABD required. Candidate must have strong commitment to undergraduate research, teaching, and campus life. Teaching responsibilities include microbiology, immunology, introductory biology, and a course of the Instructor's choosing. Simpson College is a private, selective, liberal arts college affiliated with the United Methodist Church. Review of applications begins November 26, 2001. Please send letter of application, curriculum vitae, statement of teaching philosophy, research interests, and three letters of recommendation to: **Dr. Patricia Singer, Chair, Biology Department, Simpson College, 701 North C Street, Indianola, IA 50125.** *Equal Opportunity Employer. Women and minorities are encouraged to apply.*

ENDOWED CHAIR IN BOTANY AND MICROBIOLOGY

The Botany and Microbiology Department at the University of Oklahoma is seeking candidates for the George Lynn Cross Chair in Botany and Microbiology. This endowed chair is in recognition of the former President of the University of Oklahoma and former chair of the Botany and Microbiology Department. The successful candidate will be hired beginning August 2002 as an **Associate or Full Professor with tenure** at a competitive salary.

The University of Oklahoma is a major national research university with 26,000 students and 1,700 faculty offering educational programs on its main campus in Norman, Oklahoma, on additional campuses in Oklahoma City and Tulsa, and at other sites throughout the United States and around the world. The University promotes interdisciplinary scholarship and international education in a supportive multicultural environment. With more than 90,000 residents, Norman is the third largest city in Oklahoma and is located 20 miles south of Oklahoma City.

Candidates for this position must:

- be established (mid-career) scholars with a national/international reputation,
- possess a distinguished research record, and
- have an active and funded research program.

Preference will be given to candidates who:

- are able to interact with faculty from different disciplines,
- show enthusiasm for teaching and mentoring both graduate and undergraduate students, and
- conduct state-of-the-art research in one of the following areas:

  Plant Development/Plant Genomics, addressing fundamental aspects of plant development and/or the influence of environmental stress on plant development and growth using modern tools of molecular analysis;
  Molecular Microbiology, studying cellular events at the molecular level in microbial systems or model microorganisms;
  Molecular Ecology, characterizing the ecological principles that govern the structure and function of microbial systems, their relationships to hierarchical ecological levels, and/or the molecular basis of interactions with macrobiota; or
  Geomicrobiology, studying the role of microbes in geomicrobiological and biogeochemical processes related to global climate change, focusing on the microbial production and consumption of one or more important greenhouse gases.

Submit a curriculum vitae and description of current and future research goals, and have four letters of reference sent to the address below. Application materials should be sent to **George Lynn Cross Chair Search Committee, c/o Department of Botany and Microbiology, University of Oklahoma, Norman, OK 73019 (inquiries to guno@ou.edu).** Application review begins December 1 and continues until the position is filled. For more information about OU and the department, see **http://www.ou.edu and http://www.ou.edu/cas/botany-micro/.**

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

Cedar Crest College
Department of Biological Sciences Faculty Positions

The Department of Biological Sciences, a growing department with strong academic and research programs in Genetic Engineering, Neuroscience, and Conservation Biology, seeks to fill three tenure-track faculty positions beginning fall semester 2002. Cedar Crest College is a four-year, independent liberal arts college for women.

Currently, the department includes 12 full-time faculty and has outstanding facilities, including confocal and fluorescent microscopes, a DNA sequence analyzer, PCR thermocyclers, ultracentrifuges, a bioinformatics laboratory with SGI Octane UNIX workstation and 10 Windows NT machines, and intracellular recording/microinjection equipment. All applicants must hold the Ph.D. degree and demonstrate commitment to excellence in teaching and to maintaining a vigorous undergraduate research program.

Assistant Professor, molecular neurobiology - The successful candidate will employ molecular approaches to neurobiology and will become part of a growing interdisciplinary neuroscience program in which the areas of neurophysiology, cell biology, and clinical research are currently represented. Teaching responsibilities will include contributions to Neuroscience, Genetic Engineering, and Biology courses, including introductory and upper-level lectures and labs. The specific area of research is open, but is confined to non-mammalian systems. Search committee chair: **Dr. Kent Fitzgerald.**

Assistant Professor, bioinformatics/computational biology – Applicants must have a strong interest in developing a curriculum that will integrate computational biology into instruction and research within the fields of biology and biochemistry. Primary teaching responsibilities will include introductory and advanced courses in bioinformatics/computational biology. In addition, the successful candidate will actively participate in outreach programs to serve the needs of our students and those of the community. Preference will be given to candidates with an interest in the analysis of DNA/RNA and protein data. Search committee chair: **Dr. Barbara Benson**

Assistant Professor, conservation biology - The successful candidate will participate in a developing Biodiversity and Conservation Biology program. We are seeking a broadly trained, field-oriented conservation ecologist with expertise in GIS and computer modeling. Area of specialization is open but preference will be given to candidates who specialize in plant ecology. Primary teaching responsibilities include introductory and advanced undergraduate courses in area of specialization and participation in a non-major's environmental biology course. Search committee chair: **Dr. John Cigliano**

Review of applications will begin immediately. Please submit a curriculum vitae, a detailed statement of teaching philosophy and research goals, including how this research would involve undergraduates, publications, and three letters of reference to appropriate search committee chair, **Department of Biological Sciences, Cedar Crest College, 100 College Drive, Allentown, PA 18104-6196.**

EOE

Plant Biologists (2)
UNIVERSITY OF DELAWARE
Department of Plant and Soil Sciences
Delaware Biotechnology Institute (DBI)

The Department of Plant and Soil Sciences and the DBI invite applications for two tenure-track faculty positions at the ASSISTANT or ASSOCIATE professor levels. The successful candidates will be expected to develop a vigorous extramurally funded research program in an area of contemporary plant biology with a high potential for unique fundamental discoveries, and participate in teaching. Candidates whose research would be maximally enhanced by the interactions within a new multidisciplinary institute are particularly encouraged to apply, as are those interested in exploring systems approaches to biological problems and/or the collaborative application of basic research for crop improvement. The University of Delaware is committed to building a world-class research and education program in plant biology through the combined efforts of the Department of Plant and Soil Sciences, the Delaware Biotechnology Institute (DBI), and other units on campus. DBI-associated faculty hold appointments at the University of Delaware in one or more of the following units: Plant and Soil Sciences, Marine Studies, Animal and Food Sciences, Chemical Engineering, Computer and Information Sciences, Biological Sciences, Chemistry and Biochemistry, Business and Economics, Electrical and Computer Engineering, Material Science and Engineering, and Mechanical Engineering. For more information on the DBI and its faculty, see www.dbi.udel.edu. Competitive salary/start-up packages, new modern lab space, and state-of-the-art facilities for microarray/gene chip analysis, proteomics, bioimaging and computational biology are available. Candidates must have a Ph.D., postdoctoral training, and a demonstrated excellence in innovative research at the molecular level. Applicants should forward a curriculum vitae, a statement of research interests and future plans, and have three reference letters sent to **Pamela J. Green, Chair, Plant Biology Search, c/o Amy Broadhurst, Department of Plant and Soil Sciences, University of Delaware, Newark, DE 19716-1301.** The review of applications will begin December 1, and continue until suitable candidates are identified. Curriculum vitae and letters of reference shall be shared with departmental faculty.

The University of Delaware is an Equal Opportunity Employer that encourages applications from minority group members and women. For further information, please consult our Web site www.udel.edu.

ASSISTANT PROFESSOR PARASITOLOGY

The Department of Biological Science at Old Dominion University, a state-assisted Doctoral Research–Extensive institution invites applications for a tenure-track position at the Assistant Professor level for a Parasitologist. We seek an individual who utilizes molecular methods in the study of host-parasite interactions. Teaching duties will include an undergraduate course in parasitology and upper-division undergraduate or graduate courses in the candidate's specialty. Candidates are expected to establish a strong, externally funded research program and participate in our M.S. and Ph.D. programs in the ecological and biomedical sciences. A Ph.D. in a biological science and related discipline is required; postdoctoral experience is preferred. Effective communication skills required. Please submit curriculum vitae, a brief statement of teaching and research goals, and the names and contact information of three references to: **Chair, Parasitology Search Committee, Department of Biological Sciences, Old Dominion University, Norfolk, VA 23529-0266**. Inquiries may be sent to **e-mail: dsonensh@odu.edu**. Review of applicants will begin December 15, 2001, and continues until the position is filled. Position available: July 2002. *Old Dominion University is an Affirmative Action/Equal Opportunity Insitution and requires compliance with the Immigration Reform and Control Act of 1986.*

ASSISTANT PROFESSOR BIOLOGY

Randolph-Macon Woman's College, a selective liberal arts college with historic strengths in the sciences, invites applications for a tenure-track position at the level of Assistant Professor beginning in August 2002. The position requires a Ph.D. in a biological science with an emphasis in cell biology and a strong commitment to excellence in teaching. Responsibilities include developing and teaching a core course in cell biology and an advanced course in immunology. Development of related courses that complement our existing curriculum is also expected, as is teaching introductory biology, participation in the Department's senior program, supervision of honors research, and academic advising. Preference will be given to candidates with a broad general biology background and teaching experience. Application review will begin immediately and continue until position is filled. Send letter of application including a statement of teaching and research interests; curriculum vitae; and the names, mail and e-mail addresses, and telephone numbers of three references to: **Dr. Ronald D. Gettinger, Department of Biology, Randolph-Macon Woman's College, Lynchburg, VA 24503. Telephone: 434-947-8490; FAX: 434-947-8138; e-mail: rgettinger@rmwc.edu**.

To learn more about our college, visit our **website: http://www.rmwc.edu**. *EOS/WMA.*

TWO POSITIONS

Clarke College, a growing, Catholic, coeducational liberal arts college in Dubuque, Iowa, seeks qualified candidates for two tenure-track **ASSISTANT PROFESSOR** positions in the Biology Department to begin in the fall semester 2002. Ph.D. required. (1) Physiologist: Responsibilities include teaching an upper-division human physiology course (lecture and laboratory) for physical therapy and biology majors. (2) Microbiologist/Molecular Biologist: Responsibilities include teaching an introductory microbiology course for nursing majors and an upper-level course in molecular biology. Additional responsibilities for both candidates may include teaching general biology and upper-division courses in an area of expertise and advising and supervision of undergraduate research projects. Screening of candidates begins November 19, 2001. Send a letter of introduction, undergraduate and graduate transcripts, curriculum vitae, statements of research interest and teaching philosophy, and three reference letters to: **Clarke College, Human Resources Department, 1550 Clarke Drive, Dubuque, IA 52001. E-mail: hr@clarke.edu**.

ASSISTANT PROFESSORSHIPS
Ecology, Evolution, and Behavior
University of Minnesota

Continuing a several-year recruiting campaign for 11 faculty lines in ecology, evolution, and behavior, we invite applications for the following tenure-track positions:

Behavioral ecology: We seek an Experimental Behavioral Ecologist who will complement our existing strengths in social behavior, foraging, and evolutionary studies of behavior. We especially encourage applications from those whose research utilizes mechanistic or physiological approaches to behavioral ecology.

Population biology: We encourage applications from any Biologist pursuing questions and issues in the ecology and/or evolution of populations.

The successful candidates will be expected to develop and maintain a vigorous research program and to contribute to quality undergraduate and graduate teaching. They will join a respected department that will increase to circa 32 faculty members, a third of whom will be recent hires. Information about the Department is available at **website: http://www.cbs.umn.edu/eeb**.

To apply, send curriculum vitae, statements of teaching and research interests, copies of five publications, and names and addresses of three references to: **Chair (appropriate Search Committee), Ecology, Evolution, and Behavior, University of Minnesota, 100 Ecology, 1987 Upper Buford Circle, St. Paul, MN 55108**. Application review will begin on December 1, 2001.

The University of Minnesota is committed to the policy that all persons shall have Equal Access to its programs, facilities, and Employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

ECOLOGY
Rutgers University–Newark

Applications are invited for a **TENURE-TRACK FACULTY POSITION** in ecology in the Department of Biological Sciences, a federated department of Rutgers University and the New Jersey Institute of Technology. Outstanding applicants in all fields of ecology will be considered, but we are particularly interested in quantitatively oriented Landscape/Systems Ecologists addressing issues of ecological complexity across spatial and temporal scales. The successful candidate is expected to develop and maintain an active, externally funded research program and to teach at both the graduate and undergraduate levels. Applications will be reviewed starting December 1, 2001, and will be accepted until the position is filled. Curriculum vitae, statement of research and teaching interests, and three letters of recommendation should be sent to: **Dr. Edward G. Kirby, Department of Biological Sciences, Rutgers University, 101 Warren Street, University Heights, Newark, NJ 07102 U.S.A. Website: http://biology-newark.rutgers.edu/**. *Rutgers University is an Equal Opportunity Employer.*

ASSISTANT PROFESSOR in plant biology: tenure-track position for a Ph.D. to teach general biology, plant biology, and develop an upper-level course in area of expertise. Background and research interests in organismal plant biology and willingness to develop a research program with undergraduates is expected. Send curriculum vitae; a statement of teaching and research interests; copy of transcripts; and three letters of reference by December 15, 2001, to: **Dr. Mark Gabel, Science Search and Screen, Black Hills State University, 1200 University Street, Unit 9003, Spearfish, SD 57799-9003**.

ASSISTANT PROFESSOR GEOMICROBIOLOGY

Hamilton College, a selective liberal arts college located in upstate New York, invites applications for a tenure-track Assistant Professor in geomicrobiology starting in July 2002. The candidate will teach microbiology, an upper-level elective in the field of geomicrobiology, and an interdisciplinary seminar. The successful candidate will be expected to develop an independent research program in geomicrobiology that includes opportunities for undergraduate research, and supervision of senior research projects will be expected. Ph.D. in microbiology with geoscience applications such as microbial systems in extreme environments is required; postdoctoral and teaching experience are preferred. This interdisciplinary appointment will be based in the Biology Department **(website: http://www.bio.hamilton.edu)** but interaction with the geology faculty and the environmental studies program is expected. Submit curriculum vitae; statements of teaching philosophy/experience and research interests; three letters of recommendation; and graduate transcripts by January 10, 2002, to:

Chair
Search Committee in Geomicrobiology
Hamilton College
198 College Hill Road
Clinton, NY 13323

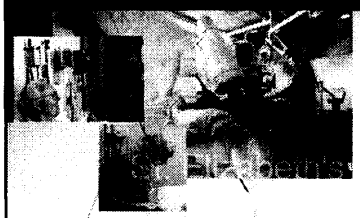
Hamilton College is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority candidates.

ASSISTANT PROFESSOR DEPARTMENT OF NEUROBIOLOGY AND BEHAVIOR
University of California, Irvine

Applications are invited for a tenure-track position at the level of Assistant Professor. The Department of Neurobiology and Behavior engages in interdisciplinary approaches to the study of neurobiology with an emphasis on neural plasticity and behavior. Preference will be given to applicants whose research interests integrate with current departmental research themes, which include learning and memory; neuroendocrinology; integrative neuroscience (including molecular/genetic, synaptic, and systems levels); development; and neuronal reorganization following injury or age-related neurodegenerative disorders. Please submit curriculum vitae; description of research interests; and the names and addresses of three potential references by December 10, 2001, to: **Chair, Department of Neurobiology and Behavior, University of California, 2205 McGaugh Hall, Irvine, CA 92697-4550. Website: http://neurobiology.uci.edu**. *The University of California, Irvine, has an active career partner program and is an Equal Opportunity Employer committed to excellence through diversity.*

Two **POSTDOCTORAL** and **TECHNICIAN POSITIONS**: RNA structure/function. Available January 2002. Postdoctoral applicants should have a Ph.D. degree in biochemistry/molecular biology with experience in spectroscopy or a Ph.D. degree in biochemistry/chemistry with sufficient experience in biomacromolecular NMR spectroscopy to operate modern high-field instruments and perform structure determination. Respond with curriculum vitae, statement of research experience and interest, and three reference letters to: **Dr. Paul F. Agris, Molecular and Structural Biochemistry, Box 7622, North Carolina State University, Raleigh, NC 27695-7622. E-mail: paul_agris@ncsu.edu**. Technical applicants with minimally a B.S. degree in microbiology, biochemistry, or chemistry should have postgraduation job experience in separation (HPLC, PAGE) and spectroscopy. Laboratory management skills important. Application forms/information for Number 608704 at **website: http://www2.acs.ncsu.edu/hr/hrforms.html**. *Affirmative Action/Equal Opportunity Employer. Americans With Disabilities Act Accommodations.*

A Tradition of Excellence.



Advance *your* Career

Outstanding Faculty Opportunities in Boston

Molecular Medicine

Tufts Medical School/St. Elizabeth's Medical Center seeks individuals at Assistant, Associate and Full Professor levels with expertise in molecular and cell biology, including gene discovery and bio-informatics with focus on neurovascular biology. Positions for both MDs and PhDs. Extremely competitive salary support to join group of investigators with track record for successful translational research, including NIH-funded Center for Excellence in Gene Therapy. Attractive seed support and space to accommodate productive research teams. Flexibility to facilitate innovative programmatic goals.

Please send CV to: **Jeffrey Isner, MD, St. Elizabeth's Medical Center, 736 Cambridge St., Boston, MA 02135; Ph: 617-789-2392; Fax: 617-779-6362; Email: jinser@opal.tufts.edu**
Equal opportunity employer

St. Elizabeth's Medical Center
Caritas Christi Health Care System
www.semc.org

Position Announcement
Chief Technologist

The **Jet Propulsion Laboratory (JPL)** of the California Institute of Technology has an immediate opening for its Chief Technologist. This position reports directly to the Director of JPL and has responsibility for planning, implementing and leading JPL's technology strategy.

REQUIRES: Distinguished record of exceptional leadership and contribution in the fields of technology and science. Nationally recognized expert in technical disciplines related to JPL interests as demonstrated by patents, publications, and/or receiving important awards for their contribution to their field/discipline. Extensive experience in planning and executing research activities of sustained quality of national and/or international significance.

DESIRED: Ph.D. in Science or Engineering. Department of Defense (DoD) clearance. Strong collaboration and experience with recognized leaders in science and technology (University, Industry and Government). In depth experience with strategic planning, technology management, program management and/or technology transition.

RESPONSIBILITIES: manage top-level coordination and assessment of technology work and infusion in flight activity (~$150M to $180M); manage approximately 30 technology and support personnel; provide intellectual leadership for the Laboratory in the strategic planning of technology; a member of JPL's Executive Council. Champion technology research and teaming interactions with universities, including Caltech; be JPL's primary focal point for technology alliances with other NASA centers; advocate and senior representative to NASA HQ and other NASA centers and other government agencies for JPL basic technology research. Appoint JPL Directorate Chief Technologists. Share joint responsibility with JPL's Chief Scientist for universities' Memorandum of Understanding; coordinates with Chief Scientist on allocation of Director's Discretionary chair of the Science and Technology Management Council.

Interested applicants should e-mail their resume (ASCII text only, no attachments) to: **jobs@jpl.nasa.gov** or FAX Attn: **Cyndy Chinn**, Manager, Staffing and Employment Programs Section **(818) 393-4591**. JPL is an equal opportunity employer.

Jet Propulsion Laboratory/California Institute of Technology

California State Polytechnic University, Pomona

The **Biological Sciences Department** seeks to fill two tenure-track **Assistant Professor** positions starting Fall 2002:

Evolutionary Biologist with the ability to teach undergraduate Evolution, Population Genetics, and Biometrics. Teaching will include shared responsibility for Evolution and Biometrics, as well as a senior-level course in Population Genetics, and other courses in the area of specialty. A research focus on organisms and processes is desired, and candidates specializing in botany, herpetology, invertebrate zoology, or mammalogy will meet other departmental needs as well. Please address application to Evolutionary Biologist Search Committee. Email: jcclark@csupomona.edu.

Neurophysiologist who is able to combine molecular biology and modern optical methods in addressing basic questions in neuroscience. Teaching responsibilities may include a human physiology course, contributions to other physiology, neuroscience, and cell biology courses as well as the development of additional neuroscience courses in area of specialty. Please address application to Neurophysiologist Search Committee. Email: dfhoyt@csupomona.edu.

Our 35 member faculty offers B.S. degrees in five areas and M.S. degrees to a total enrollment of 800 students. All departmental faculty may be expected to teach introductory biology courses. The successful candidates will have the potential for excellence in undergraduate teaching and for developing externally funded research programs that will involve undergraduate and master's students. Ph.D. in Biology, Neurophysiology or related field required. Teaching and post-doctoral research experience preferred. Applicants must send: statement of teaching philosophy and proposed plan of research, curriculum vitae, three recent letters of reference, and names of two additional referees (with telephone numbers for all five) to: Biological Sciences Department, California State Polytechnic University, Pomona, CA 91768-4032 (email applications accepted). Initial review of applicants will begin December 14, 2001, and continue until each position is filled. Affirmative Action/Equal Opportunity Employer.

http://www.csupomona.edu/~biology/

NATIONAL INSTITUTES OF HEALTH
NATIONAL EYE INSTITUTE

Job Opportunities

The National Eye Institute Intramural Program at the NIH campus, Bethesda, MD., is seeking highly qualified Postdoctoral Fellows, Research Associates and Staff Scientists in the following areas:

- **Molecular Biology**
- **Cell Biology**
- **Immunology**
- **Psychophysics**
- **Biochemistry**
- **Genetics**

Salaries range from $30,800 to $125,700 per annum, based on experience and type of appointment.

NEI offers an extensive benefits package that you may be eligible for, depending on the appointment mechanisms: Health Benefits, Life Insurance, Retirement Benefits, Annual and Sick Leave, Formal Training Program, Recruitment Bonus, Retention Allowance, Relocation Allowance, Loan Repayment Program, and Travel Benefits.

Candidates interested in specific job opportunities at the NEI may visit the NEI web site at **http://www.nei.nih.gov/** listing the most current positions available.

NIH/NEI is an Equal Opportunity Employer

POSITIONS OPEN

MICROSCOPIST

St. Lawrence University is seeking to fill a full-time, 12-month academic support staff position as a **MICROSCOPY SPECIALIST**. A Master's degree or equivalent experience is required as is experience with confocal microscopy as well as electron microscopy (TEM and/or SEM). Mechanical and laboratory aptitude, computer experience, a desire to learn and teach new methodologies, and a positive work ethic are sought. The successful candidate will help oversee a developing interdisciplinary, multiuser microscopy/imagery center; will assist faculty and student researchers in advanced microscopy techniques; help teach microscopy methods; and provide for the routine maintenance of the instrumentation infrastructure. The major instruments at the facility are on service contracts and the candidate will be expected to develop good working relationships with the professional service personnel. The facility is housed in the Biology Department and the successful candidate will also serve other science departments.

Applicants should send a letter of application, current curriculum vitae (including references), a statement of any relevant research and teaching interests related to microscopy, and have three letters of recommendation forwarded to: **Dr. T. Budd, Biology Department, St. Lawrence University, Romoda Drive, Canton, NY 13617**. The search committee will begin reviewing applications on November 30, 2001.

St. Lawrence University, chartered in 1856, is an independent, private, nondenominational university whose mission is to provide an inspiring and demanding undergraduate education in the liberal arts to students selected for their seriousness of purpose and intellectual promise. The University's 2,100 students come from 35 U.S. states and 21 countries. Located halfway between the high peaks of the Adirondack Mountains and the national capital of Canada, Ottawa, the University provides unparalleled access to outdoor recreation and international social and cultural opportunities. For more information, please visit SLU's **website: http://www.stlawu.edu/resources/job.html**. *St. Lawrence University is an Affirmative Action/Equal Employment Opportunity Employer. Women, minorities, veterans, and persons with disabilities are encouraged to apply.*

ASSOCIATE SCIENTIST (1A138N)

The ideal candidate will have strong physicochemical skills, especially in the biophysical characterization of monoclonal antibodies including a thorough understanding of ligand-macromolecule kinetic and binding concepts. We're looking for solid performance in improving existing laboratory procedures in these areas as well as the ability to develop new capabilities in biophysical characterization of both monoclonal antibodies and their interactions with antigens. Additionally, we'd like to see a strong track record in kinetic and equilibrium measurements of antibody-antigen interactions. Experience with Biacore and a very advanced knowledge of surface plasmon resonance are required as are a Ph.D. in physical biochemistry or chemistry plus two to five years of relevant industrial or academic experience. Knowledge of isothermal titration calorimetry is also desirable. Please respond to **e-mail: www.job@abgenix.com**.

ASSISTANT PROJECT NEUROSCIENTIST

The Department of Neurosciences at the University of California, San Diego, has an academic position available immediately for a qualified Ph.D. or M.D. The main focus of the research is preclinical pharmacology of experimental stroke. Studies use animal models of stroke to investigate new therapeutics and mechanisms of injury. Ability to perform animal surgery is required. Background in pharmacology, biochemistry, behavioral psychology, or neuroanatomy is desirable. Salary based on University of California pay scale. Send curriculum vitae, statement of research interests, and three references to: **Justin A. Zivin, M.D., Ph.D., UCSD School of Medicine, Department of Neurosciences, 9500 Gilman Drive, La Jolla, CA 92093-0624. E-mail: lalford@ucsd.edu**. *Applications will be accepted until position is filled. Affirmative Action/Equal Opportunity Employer.*

MOLECULAR BIOLOGIST/ MICROBIOLOGIST

The Eastern Regional Research Center, Agricultural Research Service, U.S. Department of Agriculture, Dairy Products Research Unit, has an opening for a permanent full-time Molecular Biologist/Microbiologist, GS–0401-11/12. The facility is located in Wyndmoor, Pennsylvania, a suburb of Philadelphia. The individual will serve as a member of a research team working on microbial biotechnology/biochemical genetics projects on gene expression in food-related bacteria leading to foods with improved functional, health-promoting, and storage properties. Candidates must demonstrate (1) knowledge of principles, techniques, and procedures of molecular biology, microbiology, and biochemical genetics; (2) skills in gene analysis, design, cloning, and expression, DNA amplification, quantification and sequencing; and (3) ability to design, plan, conduct and publish research in the area of gene function and expression in food fermentation bacteria. *U.S. citizenship is required.* Starting salary is commensurate with experience ($44,581 to $69,456 per year). For information on the research program, send inquiries to **e-mail: gsomkuti@arserrc.gov**. This position has specific education and experience requirements and factors that must be addressed. For information on application procedures/forms, call the Job Hotline at **Telephone: 215-233-6729** or by printing it from the Internet at **website: http://www.ars.usda.gov**. Applications must be marked ARS–X2E–2010 and postmarked by November 30, 2001. *USDA/ARS is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

The Northwest Fisheries Science Center (NWFSC) of the National Marine Fisheries Service (NMFS), NOAA, seeks a **FISHERIES BIOLOGIST/BEHAVIORAL ECOLOGIST** to serve on a multidisciplinary team of Scientists studying ecological interactions of natural and artificially propagated salmonids in the Pacific Northwest. The position, located in Manchester, Washington, requires the ability to utilize and adapt biological, ecological, and behavioral techniques to determine effects of environmental-rearing parameters on behavioral development and fitness. The individual also will develop analytical methods for solving problems to ensure accuracy of results, determine appropriate analyses and analyze research data, organize and write research reports and manuscripts for journals, and establish and maintain contacts with researchers in and outside of the NMFS. See **website: http://www.usajobs.opm.gov/a9NOAA.htm** (select Washington State) for complete application information. Contact: **Cheryl Morisaki; e-mail: cheryl.morisaki@noaa.gov; Telephone: 206-860-3257** for direct questions.

RESEARCH ASSOCIATE POSITION, molecular biology research. The Division of Hematology/Oncology at Maimonides Medical Center, Brooklyn, New York, a Sinai School of Medicine affiliate, is recruiting a **POSTDOCTORAL** or Research Scientist position. We are doing research in myclofibrosis. The position requires a Ph.D. or equivalent degree. An expertise in all molecular biology technology is required. Salary is around $50,000 depending on qualifications. Send curriculum vitae and the names and telephone numbers of three references to: **J. C. Wang, M.D., Maimonides Medical Center, Division of Hematology/Oncology, Suite 501, Brooklyn, NY 11219. Telephone: 718-283-8297; FAX: 718-635-7110**.

RESEARCH SCIENTIST. The Molecular Cardiology Institute, a small, independent, not-for-profit laboratory, seeks a Ph.D. with interest in cardiovascular research. Experience with HPLC, cardiomyocytes isolation, culture and microinjection, immunocytochemistry, and signal transduction. *Must be U.S. citizen or permanent resident.* Write or e-mail: **Jose Marin, M.D., Director, 75 Raritan Avenue, Highland Park, NJ 08904. E-mail: tmci@att.net**.

DIRECTOR PATHOLOGY INFORMATICS
Department of Biomedical Informatics
The Ohio State University

The Department of Biomedical Informatics and the Department of Pathology are forming a joint division of pathology informatics and seek a Director who is an AP and/or CP Board-eligible Pathologist with a strong research program in the area of pathology informatics. This can include research in areas that include analysis and management of gene expression and proteomics data and tissue microarray data, analysis and management of pathology imagery, tissue banking-related information systems, outcomes studies, and coordination of point-of-care data. The responsibilities associated with this position will include overall responsibility of all AP- and CP-related information systems, taking a leadership role in pathology informatics-related research initiatives, and participating in AP- or CP-related service work as negotiated.

The Ohio State University has made a major commitment in the area of biomedical informatics and is establishing a broad-based interdisciplinary team with faculty with interests that span the areas of bioinformatics, pathology- and radiology-based image processing, biomedical computer modeling, outcomes analysis, and high-end computing. The individual we seek will play an active leadership role in the pathology informatics area and will be a member of this interdisciplinary biomedical informatics team.

Applicants must have an M.D. and/or Ph.D. degree. Applicants should send or e-mail a letter of interest including statements of research and teaching interests and curriculum vitae to:

Joel Saltz, M.D.
OSU Department of Biomedical Informatics
3184 Graves Hall
333 West 10th Avenue
Columbus, OH 43210
E-mail: saltz-1@medctr.osu.edu

The Ohio State University is an Equal Opportunity Employer.

RESEARCH POSITION
Division of
Critical Care Medicine

The Division of Critical Care Medicine, Children's Hospital Research Foundation, Cincinnati, Ohio, is recruiting an established Investigator in the field of signal transduction. Candidates should have a Ph.D. and a demonstrated record of scientific productivity in the form of publications and extramural funding. The Division has significantly advanced its studies related to inflammation-related signal transduction pathways.

Send curriculum vitae to:

Hector R. Wong, M.D.
Director, Division of Critical Care Medicine
Children's Hospital Research Foundation
3333 Burnet Avenue
Cincinnati, OH 45229-3039
E-mail: wonghr@chmcc.org
Website: www.cincinnatichildrens.org

Children's Hospital Medical Center is an Affirmative Action/Equal Opportunity Institution. Women and minorities are encouraged to apply.

POSITION AVAILABLE

RESEARCH ASSOCIATE in cardiovascular/pulmonary pharmacology available for recent Ph.D. in pharmacology or physiology. Project related to pharmacology of purine receptors and the involvement of second messenger systems in smooth muscle and endothelial/epithelial cells. Salary commensurate with experience. Send curriculum vitae and three letters of recommendation to: **Dr. S. Jamal Mustafa, Department of Pharmacology, East Carolina University, Greenville, NC 27858. Telephone: 252-816-2736.** *Affirmative Action/Equal Employment Opportunity. Accommodates individuals with disabilities. Applicants must comply with the Immigration Reform and Control Act.*

POSITIONS OPEN

The Naval Submarine Medical Research Laboratory (NSMRL), Groton, Connecticut, is seeking applicants for the position of **TECHNICAL DIRECTOR**. NSMRL's scientific emphasis includes submarine medicine, hyperbaric diving, sensory psychology (primarily audition and vision), personnel selection, occupational health (submarine and diving related), hearing conservation, diving bioeffects, information processing and display, and submarine escape and rescue. NSMRL is an applied science laboratory whose main interest is to enhance the capability and performance of sailors and marines.

The duties of the Technical Director (TD) include marketing of the NSMRL science; preparation and presentation of briefings; developing ties with sponsors; being an advocate for the laboratory; discovering new business opportunities; managing the current programs from a budget and accounting viewpoint; assigning appropriate scientific and technical resources to a project to ensure timely completion; managing and arbitrating conflict; team building; and tracking Broad Agency announcements, preproposals, and proposals for timely submission. The TD will report to the Commanding Officer and will have the appropriate authority and responsibility to lead the scientific staff to produce high-quality, timely research. The applicant must have a Ph.D. in a biological science or at least a Master's degree in an engineering discipline. The applicant must be able to demonstrate a high level of performance including successful grant writing and publications in peer-reviewed scientific journals. Additionally, he/she should be able to demonstrate the ability to work in a government setting (U. S. military/DOD) and develop sponsor connections. Travel is a requirement.

Current research programs and general information describing NSMRL can be viewed at **website: http://www.nhrc.navy.mil/nsmrl**. Candidates are encouraged to send their résumé, salary history, and references to **e-mail: krwalter@earthlink.net**. *The United States Navy is an Equal Opportunity/Affirmative Action Employer. Candidates must be U. S. citizens and eligible to obtain a security clearance.*

Applications invited for two principal Investigators at the **SCIENTIST I/SCIENTIST II** levels (**ASSISTANT/ASSOCIATE PROFESSOR** equivalent) at the Holland Laboratory for Biomedical Sciences. Should be highly motivated to establish independent, extramurally funded research programs in the area of basic mechanisms of immune regulation. Current research programs in the Department include regulation of B and T cell growth, apoptosis, cytokine signaling, and gene therapy for immune disorders as well as control of immune responses in hemophilia patients. Requires: Ph.D., or M.D./Ph.D.; more than three years of postdoctoral experience; a strong, peer-reviewed publication record in molecular and cellular immunology; and interest in developing collaborative/program projects. Candidates who can transfer extramurally funded programs will be eligible for Scientist II level. Candidates are eligible for faculty appointments in Department of Immunology at the George Washington University Medical Center. The Holland Laboratory, the biomedical research and development center of the American Red Cross, is located 10 miles north of the NIH and offers an excellent start-up and benefits. Send curriculum vitae and three references to: **Dr. David Scott, HL-046, Holland Laboratory, 15601 Crabbs Branch Way, Rockville, MD 20855**. *Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS
Molecular Microbiology

Two positions available to study nontuberculous *Mycobacteria* and other microbes from occupational environments. Studies will involve PCR, DNA fingerprinting, and real-time quantitative PCR among other molecular and microbiological techniques. Apply to: **Dr. Jagjit S. Yadav, Department of Environmental Health, University of Cincinnati Medical Center, Cincinnati, OH 45267. Telephone: 513-558-4806; FAX: 513-558-4397; e-mail: jagjit.yadav@uc.edu.**

POSITIONS OPEN

VA ASSOCIATE CHIEF OF STAFF FOR RESEARCH
Miami Veterans Affairs Medical Center and the University of Miami School of Medicine

The Miami VAMC and the UMSM invite applications for the position of Associate Chief of Staff for Research at the VAMC. The position entails responsibility for leadership and oversight of the existing research program at the VAMC and the development of new programs in collaboration with our closely affiliated School of Medicine. Candidates should possess M.D. and/or Ph.D. degrees and have strong leadership and administrative skills and a record of scientific accomplishment. Faculty appointment will be made in a department of the UMSM appropriate to the individual's background.

Support for the Miami VAMC research program totals more than $9 million annually including funds administered by the South Florida VA Foundation for Research and Education. The Miami VAMC hosts a Geriatric Research, Education, and Clinical Center (GRECC) and Centers for Spinal Cord Injury Rehabilitation Research, Behavioral Medicine Research, HIV/AIDS, and Hepatitis.

Applicants should submit a letter of interest, current curriculum vitae, and the names of three references to: **Chair of the ACOS Search Committee, Herman S. Cheung, Ph.D., Research Service (151), VA Medical Center, 1201 N.W. 16th Street, Miami, FL 33125.**

The Miami VAMC and UMSM are Equal Opportunity Employers and encourage the applications of women and minorities.

STRESS NEUROBIOLOGY

RESEARCH ASSOCIATE, POSTDOCTORAL, and **RESEARCH ASSISTANT** positions are available in a multidisciplinary program of research in stress neurobiology at Children's Hospital of Philadelphia and the University of Pennsylvania. The overall goal of the program is to elucidate how substrates of the stess response are involved in medical or psychiatric disorders. Specific areas of interest include interactions between corticotropin-releasing, factor-like peptides and monoamine systems; central control of visceral function; impact of long-term stress and glucocorticoids on neuronal function; circuitry linking stress substrates to monoamine systems; stress substrates as targets of psychotherapeutic agents; and interactions between opioids and stress substrates. Approaches include electrophysiology (*in vitro* and *in vivo*), neuroanatomy, behavior, genetics, and molecular. Salaries are competitive and commensurate with experience. Openings are available in the laboratories of **Dr. Sheryl Beck** and **Dr. Rita Valentino**. Applicants should contact: **Dr. Sheryl G. Beck, 4 North ARC, Children's Hospital of Philadelphia, 3615 Civic Center Boulevard, Philadelphia, PA 19104. Telephone: 215-590-0651; e-mail: becks@email.chop.edu**.

SCIENTIFIC ADVISOR

CBLH LLP, a Wilmington, Delaware, law firm, seeks a Scientific Advisor for its biotechnology patent practice. The responsibilities will involve patent-related research and technical assistance to patent attorneys in molecular biology, cell biology, and related subject matter.

The candidate should have an advanced degree in a relevant biological discipline and familiarity with bioinformatics, recombinant gene expression, genomics, and drug screening and development. Experience with sequence analysis tools and sequence databases is required. The candidate should also possess excellent verbal and written communication skills.

We offer a competitive salary, excellent benefits, and a pleasant work environment. Please send curriculum vitae to: **Joann M. Winterle, Human Resources Director, Connolly Bove Lodge & Hutz LLP, 1220 Market Street, Wilmington, DE 19801**. *Equal Employment Opportunity/Minorities/Females/Disabled/Veterans. Nonsmoking environment.*

POSITIONS OPEN

DIRECTOR, BREAST CANCER RESEARCH
Northwestern University/ Evanston Northwestern Healthcare

Robert H. Lurie Comprehensive Cancer Center of Northwestern University (NU) and Evanston Northwestern Healthcare (ENH) are jointly recruiting a nationally known breast cancer Researcher. Candidate should have a M.D. and or Ph.D. The selected individual will have access to large patient material (about 700 new cases per year, databases, tissue bank) and will be part of NU SPORE. The position is located on the NU/Evanston campus and is in proximity to the university's main campus. The Director will be provided with appropriate research space, support for additional recruitments and start-up funds, and is expected to develop a nationally known research program. Candidates must meet NU's requirements for faculty appointment at the rank of **ASSOCIATE PROFESSOR** or higher. An opportunity also exists for an appointment to the graduate school. Salary and benefits highly competitive. Anticipated starting date of February 1, 2002. Send curriculum vitae and reply by December 1, 2001, to: **J. Khandekar, M.D., Chairman, Department of Medicine, Evanston Northwestern Healthcare, 2650 Ridge Avenue, Evanston, IL 60201**. *Northwestern University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply. Hiring is contingent upon eligibility to work in the United States. Search Number P-128-N02.*

RESEARCH SPECIALIST I POSITION in cryoelectron microscopy with the Howard Hughes Medical Institute, located at the Wadsworth Center in Albany, New York. Responsibilities include managing cryo-EM operations, coordinating instrument use, and ensuring optimum instrument performance. Maintain ancillary equipment and generate high-quality resolution data for a variety of projects (3-D imaging of macromolecular complexes). Train all levels of users in cryo-EM techniques and coordinate projects where automation or instrumentation indicate that staff training needs to be utilized. Advise and arrange new equipment purchases. Keep apprised of latest techniques by reading publications and keeping in contact with the 3-D EM community. Help with technical input in grant applications and publications. Required qualifications: B.S. in biology or physics; two years of experience in an EM laboratory. Preferred qualifications: laboratory management experience; experience with cryo-EM; effective communication skills for training and presentations; familiarity with computers and ancillary equipment; time management skills for scheduling use of equipment and performing experiments. Please send your curriculum vitae and the names of three references to: **Dr. Joachim Frank, Wadsworth Center, P.O. Box 509, Albany, NY 12201-0509. FAX: 518-486-2191; e-mail: joachim@wadsworth.org.**

FACULTY POSITION
CELL BIOLOGY
University of Texas Southwestern Medical Center at Dallas

The Department of Cell Biology at The University of Texas Southwestern Medical Center at Dallas in conjunction with the Endowment for Scholars in Biomedical Research announces the opening of **TENURE-TRACK APPOINTMENTS** in the field of molecular cell biology. The Department of Cell Biology offers a vibrant, collaborative research environment and superb start-up packages. Applicants should submit curriculum vitae, the names of three references, and a brief description of their research goals to: **Dr. Richard G. W. Anderson, The University of Texas Southwestern Medical Center, Department of Cell Biology, 5323 Harry Hines Boulevard, Dallas, TX 75390-9039. Website: http://www.swmed.edu/home_pages/cellbio/dw/index.html.**

The University of Texas Southwestern Medical Center is an Equal Opportunity/Affirmative Action Employer.

Need Human Specimens For Research?

The NCI Cooperative Human Tissue Network (CHTN) provides normal, benign, pre-cancerous and cancerous human tissue to the scientific community for basic and developmental studies in many areas of cancer research. Contact the CHTN website at: http://www-chtn.ims.nci.nih.gov, or 1-866-GO2-CHTN (1-866-462-2486)

The NCI Clinical Trials Cooperative Groups have banked tumor specimens from large numbers of uniformly treated cancer patients with a variety of malignancies. Each group has a review process for research proposals. If proposals receive favorable reviews, specimens with clinical, treatment and outcome data can be made available to researchers through collaborative arrangements. These banked specimens are most useful for clinical correlative studies on uniformly treated patient populations. Contact the NCI Specimen Resource Locator website at: http://www.cancer.gov/specimens, or the NCI Tissue Expediter, (301) 496-7147; e-mail: tissexp@mail.nih.gov.

NATIONAL® CANCER INSTITUTE

The Breast, Ovarian and Colorectal Cancer Family Registries (CFRs) include two international registries: the Cancer Family Registry for Breast Cancer Studies (Breast CFR) and the Cancer Family Registry for Colorectal Cancer Studies (Colon CFR). The Breast CFR provides family history information, biological specimens and epidemiologic and clinical data from clinic-based and population-based families at risk for breast and ovarian cancers. The Breast CFR infrastructure is particularly suited to support interdisciplinary and translational breast cancer research. Similarly, the Colon CFR collection includes family history information, epidemiologic and clinical data, and related biological specimens from individuals with colorectal cancer and their families. The colon CFR is a resource for population and clinic-based, translational research in the genetic epidemiology of colorectal cancer. Contact the CFRs website at http://epi.grants.cancer.gov/cfr.html or Dr. Daniela Seminara, NCI, (301) 496-9600; e-mail: seminard@mail.nih.gov.

The NCI Cooperative Breast Cancer Tissue Resource (CBCTR) can provide researchers with access to over 9,000 cases of formalin-fixed, paraffin-embedded primary breast cancer specimens, with associated pathology and clinical data. The collection is particularly well-suited for validation studies of diagnostic and prognostic markers. Contact CBCTR's website at: http://www-cbctr.ims.nci.nih.gov, or Ms. Sherrill Long, Information Management Services, Inc., (301) 984-3445; e-mail: sherrill@ims.nci.nih.gov.

The AIDS and Cancer Specimen Bank (ACSB) provides qualified researchers with tissue, cell, blood and fluid specimens, as well as clinical data from patients with AIDS and cancer. The specimens and clinical data are available for research studies, particularly those that translate basic research findings to clinical application. Contact the ACSB website at: http://acsb.ucsf.edu, or Dr. Ellen Feigal, NCI, (301) 496-6711; e-mail: ef30d@nih.gov or Dr. Jodi Black, e-mail: jb377x@nih.gov.

Each of the resources listed above has an established review process for specimen requests and/or requirements that must be met for access to specimens. Additional details may be obtained from the resource websites and/or resource contacts.

The NCI Specimen Resource Locator is a web-based database to help researchers locate appropriate sources of normal, benign, pre-cancerous and cancerous human tissue specimens for cancer research, http://www.cancer.gov/specimens.

Other human specimen resources for cancer research may be available through collaborative arrangements. Contact the NCI Tissue Expediter, (301) 496 - 7147; e-mail: tissexp@mail.nih.gov.

POSITIONS OPEN

ASSISTANT PROFESSOR
Biology

Assistant Professor, tenure-track, starting fall 2002. Candidates must have a Ph.D. in the biological sciences, be committed to teaching undergraduates, and to developing a research program that will involve undergraduates. Teaching duties will involve a major commitment to laboratory lecture courses in introductory biology for majors and nonmajors. There will also be opportunities to teach courses in the candidate's area of expertise. A variety of research specialties will be considered; of particular interest to our faculty will be (but are not restricted to): developmental genetics, population genetics, aquatic ecosystems, and functional morphology (animal or plant). Siena College is a four-year, liberal arts college of 2,700 students with a Franciscan and Catholic tradition. The Biology Department consists of 13 full-time faculty members and over 300 majors. The Department is housed in a brand-new building with faculty offices, research laboratories, and teaching laboratories. Additional information about our department can be found at **website: http://www.siena.edu/biology/**. Send letter of application; statement of teaching philosophy and research interests; résumé; and three letters of recommendation by December 14, 2001, to: **Dr. Kenneth Helm, Department of Biology, Siena College, 515 Loudon Road, Loudonville, NY 12211-1462. Telephone: 518-783-2915**. *Siena College is an Equal Opportunity Employer and encourages applications from all qualified candidates.*

The Department of Botany and Agricultural Biochemistry at the University of Vermont invites applications for a tenure-track faculty appointment in the area of ecology. Applications are welcome from outstanding candidates in any area of plant ecology. Experimental Community Ecologists who are testing fundamental theories in community ecology using field experiments and who have conservation interests are especially encouraged to apply. The new faculty member will join a dynamic universitywide community of Ecologists, Evolutionary Biologists, and Conservation Scientists. Faculty appointment is expected to be at the **ASSISTANT PROFESSOR** level. Candidates must have a Ph.D., preferably postdoctoral experience, be able to establish an extramurally funded research program, and teach graduates and undergraduates. Review of applications will begin December 17, 2001. To receive full consideration, all materials must be received by January 3, 2002. Applicants should send curriculum vitae, a summary of research and teaching interests, up to three representative publications, and arrange for three letters of reference to be sent to: **Dr. Jane Molofsky, Chair, Ecology Search Committee, Department of Botany and Agricultural Biochemistry, University of Vermont, 120B Marsh Life Science Building, Burlington, VT 05405**. *The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSTDOCTORAL POSITIONS are immediately available for research focused on the biological and biochemical functions of tumor suppressor genes and DNA repair machinery. Our recent publications: BRCA2 and RAD51, *PNAS*; BRCA1 and ATM, *Nature*; NBS1 and TRF, *JBC*. Training and experience in biochemistry, molecular biology, cell biology, or animal models preferred. Prospective candidates should forward their curriculum vitae and three references to:

Dr. Phang-Lang Chen, Assistant Professor
Institute of Biotechnology/
Department of Molecular Medicine
UTHSCSA
15355 Lambda Drive
San Antonio, TX 78245-3207
Telephone: 210-567-7377
E-mail: chenp0@uthscsa.edu

The University of Texas Health Science Center at San Antonio is an Equal Employment Opportunity/Affirmative Action Employer.

POSITIONS OPEN

ASSISTANT PROFESSORS
School of Optometry (Biology of Ocular Disease and Optics Related to Vision and the Eye)
University of California, Berkeley

Applications are being accepted for two tenure-track positions, one from individuals who investigate the optics of the eye or who use modern optical techniques such as adaptive optics to investigate the eye, vision, and/or eye disease, and the other for individuals who wish to join an expanding group of Basic and Clinical Scientists with interests in the biology of ocular disease. Candidates should have a Ph.D., O.D./Ph.D., or M.D./Ph.D. (or equivalent training); postdoctoral experience; and a strong commitment to excellence in research and teaching. Applicants for the biology of ocular disease position should have a strong background in cell and molecular biology and a research interest in one of the following: eye disease, visual disorders, mechanisms of visual function, investigation of normal tissue, and processes relevant to eye disease. The successful applicants will be expected to develop innovative, independent research programs that attract extramural funding and to participate in training professional students in optometry and graduate students in vision science. Applications should include curriculum vitae, names and addresses of three to five references, and a brief statement of research objectives and teaching experience. The appointment can begin as early as July 2002. Applications should be postmarked no later than February 15, 2002, and directed to: **Chair, Faculty Search Committee, Optics Related to Vision and the Eye or Biology of Ocular Disease, School of Optometry, University of California, Berkeley, CA 94720-2020**. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

STAFF SCIENTIST

Affymetrix' GeneChip™ technology, the preeminent platform for acquiring, analyzing, and managing complex genetic information, bridges the gap between computers and biology. Through this technology, we're helping Researchers turn genetic information into knowledge that will dramatically accelerate pharmaceutical research and improve the diagnosis, treatment, and prevention of disease. And Affymetrix is leading the way with more powerful versions of this technology on the horizon. Join us as we advance into the genetics age.

As part of the Product Development group, you will initiate, direct, and implement novel strategies in the development of molecular biology methods and reagents for labeling, amplifying, and detecting nucleic acids. Requires a Ph.D. in biochemistry, biophysics, genetics, molecular biology or related, and a minimum of three years of relevant experience in DNA/RNA and standard molecular biology procedures and concepts. Background in a supervisory role with responsibilities for key deliverables in a new product development process is preferred.

Take part in this striking intersection of computers and biology. As part of our team, you will enjoy a competitive salary and benefits package plus a dynamic work environment where you'll have the resources you need to get the job done. For consideration, please mail, FAX, or e-mail your résumé to: **Affymetrix, Human Resources, Job Code SCI-ATR346, 3380 Central Expressway, Santa Clara, CA 95051. FAX: 408-481-0422; e-mail: hr-proddeveng@affymetrix.com**. Visit our **website: http://www.affymetrix.com**. *We are an Equal Opportunity Employer.*

Carnegie Mellon seeks an **EXECUTIVE DIRECTOR** for its Center for the Study and Improvement of Regulation. See **website: http://www.epp.cmu.edu/people.html**. Contact: **Granger Morgan, EPP, Carnegie Mellon, Pittsburgh, PA 15213**.

POSITIONS OPEN

TWO FACULTY POSITIONS
Plant Molecular Biology
Iowa State University, Ames

The Department of Biochemistry, Biophysics, and Molecular Biology (BBMB) (**website: http://www.bb.iastate.edu**) at Iowa State University invites applications from outstanding candidates for two tenure-track **ASSISTANT PROFESSOR** positions in plant molecular biology and/or plant biochemistry. These positions are part of the new Plant Sciences Institute (**website: http://www.plantsciences.iastate.edu**), which represents a major commitment by the state and the University to improve its already strong position in basic plant science research. The Department of BBMB offers excellent facilities and an interactive research environment. Preference will be given to candidates who clearly demonstrate the potential to develop and lead a nationally prominent, competitively funded research program and who display a commitment to excellence in teaching at the graduate and/or undergraduate level. High-quality laboratory space and a generous start-up package will be made available. In addition, the successful applicants will have access to a state-of-the-art metabolomics research laboratory recently funded by $2.3M from the University and the W. M. Keck Foundation (**website: http://www.wmkeck.org**).

Candidates should hold the Ph.D. or equivalent degree and have postdoctoral experience. Applications should include a cover letter, curriculum vitae, a description of research accomplishments and planned future proposals, a statement of teaching interests, and three letters of recommendation sent under separate cover. To guarantee consideration, applications must be received by December 1, 2001. Materials should be sent to:

Faculty Search Committee
Department of BBMB
1210 Molecular Biology Building
Iowa State University
Ames, IA 50011

Iowa State University is an Affirmative Action/Equal Opportunity Employer. Applications from women and minority candidates are especially encouraged.

POSTDOCTORAL RESEARCH ASSOCIATE
BIOCHEMISTRY AND MOLECULAR BIOLOGY
Southern Research Institute
Birmingham, Alabama

Immediate opening requiring a Ph.D. in molecular and cellular biology, biochemistry, or related discipline. The position in drug discovery will investigate the expression and function of protein involved in signal transduction and protein from infectious pathogens and also participate large-scale expression of proteins in *E. coli*, baculovirus/insect cells. Hands-on experience in protein purification and crystallization is desirable. Good written and verbal communication skills are required for effective drug discovery team participation. Please forward application letters accompanied by curriculum vitae, names and addresses of three references, and a research summary to: **Southern Research Institute, Human Resources, P.O. Box 55305, Birmingham, AL 35255-5305. E-mail: s.r.brown@sri.org; FAX: 205-581-2880; website: http://www.southernresearch.com**. Must refer to Position Number 937. *Affirmative Action/Equal Employment Opportunity.*

FACULTY POSITIONS
MEDICAL SCHOOL

The American University of the Caribbean School of Medicine is expanding the faculty and inviting applications for positions in the departments of Gross Anatomy, Histology, Microbiology, and Psychology. Successful candidates should be experienced in their field, self-motivated, and enthusiastic about teaching and scholarly activities. These positions are located at our St. Maarten, Caribbean, campus; **website: http://www.aucmed.edu**. Candidates should send their résumés to: **Search Committee, c/o MEIO-S, 901 Ponce de Leon Boulevard, Number 401, Coral Gables, FL 33134. FAX: 305-444-6791**.

CONFERENCES

FELLOWSHIPS

POSITIONS OPEN

POSTDOCTORAL POSITIONS

The Matrix Metalloproteinase Unit (MMPU) of the National Institute of Dental and Craniofacial Research (NIDCR) at NIH is seeking Postdoctoral Fellows to join the ongoing research program.

The research of the MMPU is focused on understanding the role of proteolytic enzymes in tissue remodeling during development (in growth and in disease) with specific emphasis on morphogenesis and pathophysiological processes associated with tissue destruction. The research of the laboratory currently is focused on the biologic function of matrix metalloproteinases and their inhibitors. Our approaches are mainly genetic (gene targeting including gene ablation and replacement) and cell biological (regulation of cell and enzyme function).

Candidates must possess a D.D.S., D.M.D., Ph.D., or M.D. or equivalent degree and a strong background in one or more of the following relevant areas: mouse and human molecular genetics, cell biology, and experimental disease models. Candidates are encouraged to submit their application including curriculum vitae, relevant publications, and names of individuals who can provide letters of recommendation. Applications should be sent to: **Ms. Carol Payamps, NIDCR, Building 30, Room 132, 30 Convent Drive MSC 4326, Bethesda, MD 20892**. *NIH is an Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS
Laboratory of Neurosciences
National Institute on Aging

The Laboratory of Neurosciences within the Intramural Research Program of the National Institute on Aging (NIA) in Baltimore, Maryland, invites applications for Postdoctoral positions studying the genetics of aging in *C. elegans*. Research will focus on the aging of the nervous system and the nervous system's role in determining lifespan; see **website: http://www.grc.nia.nih.gov/Branches/Ins/mgu.htm** for details. Applicants must have a Ph.D. and/or M.D. with not more than five years of Postdoctoral experience. A background in neuroscience is helpful. To apply, send curriculum vitae, bibliography, and names/addresses of three references to: **National Institute on Aging, c/o Dr. C. Wolkow, IRP/LNS, 5600 Nathan Shock Drive, Baltimore, MD 21224-6825**. The deadline for submission of applications is January 15, 2002. *NIH is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION
Structural Biology

NIH has a position available to study the structure and function of cell surface immune receptors and their ligand recognition using both protein crystallography and molecular biology techniques. Our goal is to understand the function of immune receptors in infection and certain autoimmune disorders. Starting stipend is from $30,800 to $37,000 depending on experience. Interested candidates should send curriculum vitae and names of three references to: **Dr. Peter Sun, Structural Biology Section, NIAID, National Institutes of Health, 12441 Parklawn Drive, Rockville, MD 20852. E-mail: psun@nih.gov**. *U.S. citizenship is not required. NIH is an Equal Opportunity Employer.*

CAREER IN OPTOMETRY, OPTOMETRIC RESEARCH, OR TEACHING

The New England College of Optometry offers a unique program for those with a Doctorate in the sciences: biology, chemistry, physics, psychology, etc. Candidates have the opportunity to obtain the Doctor of Optometry (O.D.) degree in 27 months. The program begins annually in June. Employment opportunities exist in clinical practice, industry, optometric faculty positions, and research. Contact: **Admissions Office, Department S, 424 Beacon Street, Boston, MA 02115. Telephone: 1-800-824-5526; e-mail: admissio@ne-optometry.edu; website: http://www.ne-optometry.edu**. Application deadline: March 1, 2002.

A **POSTDOCTORAL FELLOWSHIP** position is available to study novel purinergic receptor signaling pathways that regulate cardiac myocyte functions. Cloning, transfection, antisense, and transgenic approaches will be used. Applicants must have a Ph.D. and/or M.D. Send curriculum vitae to: **Dr. Bruce Liang; e-mail: liangb@mail.med.upenn.edu**.

MULTIPLE POSTDOCTORAL RESEARCH ASSOCIATE POSITIONS
Microbial Functional and Community Genomics
Oak Ridge National Laboratory

The Oak Ridge National Laboratory (ORNL) (**website: http://www.ornl.gov**), Environmental Sciences Division (**website: http://www.esd.gov**), invites qualified persons to apply for five Postdoctoral Fellowship positions at the Laboratory.

The successful candidate will engage in research and development in the areas of microbial functional and community genomics, which will include (1) genomewide transposon mutagenesis for the sequenced bacterium *Shewanella oneidensis* MR−1; (2) phage display analysis of protein-protein interactions in MR−1; (3) whole-genome microarray analysis and targeted mutagenesis for *Rhodopseudomonas palustris, Deinococcus radiodurans,* and *Nitrosomonas europaea;* and (4) microbial community analysis using microarrays and metagenomics. The individual(s) will work cooperatively with Scientists at ORNL, Michigan State University, Pacific Northwest National Laboratory, the University of Iowa, Baylor College of Medicine, Oregon State University, University of Southern California, Department of Energy Joint Genome Institute, and/or Institute of System Biology.

The principal qualification is an earned Ph.D. in molecular biology, microbiology, or biochemistry with demonstrated experience in using molecular techniques. Additional experience is desired in bioinformatics, microarray technology, phage display, BAC library construction, and PFGE. Excellent oral and written communication skills and willingness to work in a multidisciplinary team are required. The salary will be very competitive.

Qualified applicants are invited to send curriculum vitae, a description of research accomplishments and interests, and the names and telephone numbers of three references to: **Dr. Jizhong Zhou, Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6038. Telephone: 865-576-7544; FAX: 865-576-8646; e-mail: zhouj@ornl.gov; website: http://www.esd.ornl.gov/facilities/genomics/**.

This appointment will be offered through the ORNL Postdoctoral Research Associates Program (**website: http://www.orau.gov/orise/edu/postgrad/ornlpdoc.htm**). *The program is open to all qualified U.S. and non-U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.*

POSTDOCTORAL POSITION

A Postdoctoral position is available immediately to study the regulation of gap junctions in retinal neurons. Applicants must have a recent Ph.D. or M.D./Ph.D. degree and a strong background in cell and molecular biology or in biophysics. The successful applicant will join a multidisciplinary research program examining the roles of gap junctions in the central nervous system and the signaling pathways leading to their regulation. Interested applicants should send curriculum vitae, a brief description of research interests, and names and contact information of three references to: **Dr. John O'Brien, Department of Ophthalmology and Visual Science, University of Texas, Houston Health Science Center, 6431 Fannin Street, MSB 7.024, Houston, TX 77030. E-mail: john.obrien@uth.tmc.edu; website: http://eye.med.uth.tmc.edu/Obrien/**. *Equal Opportunity Employer/Affirmative Action/SSP/smoke-free environment.*

A **POSTDOCTORAL POSITION** is available immediately to investigate the cell cycle function of the budding yeast and human Cdc14 protein phosphatases. The Cdc14 phosphatase is a component of a signaling pathway that triggers the termination of mitosis. This NIH-funded position will focus on identification of substrates and characterization of the regulatory mechanisms for the human and yeast enzymes. Applicants should have a background in biochemistry and/or molecular biology and an aptitude for original and independent research. Experience with the yeast system is desirable but not necessary. Send or e-mail curriculum vitae and names of three references to:

Dr. Harry Charbonneau
Purdue University
Department of Biochemistry
West Lafayette, IN 47907
E-mail: charb@purdue.edu
FAX: 765-494-7897

Purdue University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITIONS

The Department of Urology at the University of Washington has at least three openings funded by NIH for study in the field of prostate cancer biology, specifically in the area of bone metastases. Applicants should have a Ph.D. and have research experience in bone biology, molecular biology, cell biology, immunology, bone histomorphometry, or other discipline that would prepare them well for study of cancer bone metastases. Interested candidates should send curriculum vitae and three letters of reference to: **Eva Corey, Ph.D.,** or **Robert Vessella, Ph.D., Genitourinary Cancer Research Laboratory, Department of Urology, Box 356510, University of Washington Medical Center, Seattle, WA 98195. E-mail: ecorey@u.washington.edu**.

ADVERTISEMENT FOR POSTDOCTORAL FELLOW

A position is available for postdoctoral research in a laboratory dedicated to the study of normal and malignant hematopoietic proliferation and differentiation. Current projects include the study of hematopoietic growth factor signal transduction and the molecular characterization of TRPC genes in hematopoiesis utilizing cell transfection studies, gene disruption, and mutagenesis. A strong background in molecular biology is suggested. Interested applicants should submit their curriculum vitae and the names of references to: **Barbara A. Miller, M.D. (KMG), Senior Scientist, Henry Hood Research Program, Weis Center for Research, Geisinger Clinic, 100 North Academy Avenue, Danville, PA 17822-2600**.

Baylor College of Medicine is seeking **POSTDOCTORAL POSITIONS** immediately to study G protein-coupled receptor (GPCR)-mediated signaling in immune system (*Nature Genetics* **10:**143). The position requires a strong background in cellular immunology and signal transduction. Interested candidates should e-mail or mail their curriculum vitae with contact information for three references to **e-mail: mwu@bcm.umc.edu** or **Dr. Mei X. Wu, Department of Pathology, Baylor College of Medicine, Houston, TX 77030**. *Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.*

POSTDOCTORAL POSITION to study antibody immunotherapy for the prevention and treatment of HIV infection at Harvard Medical School. Candidates with experience in immunology, molecular biology, or virology are encouraged to submit curriculum vitae and names of three references to: **Dr. Lisa Cavacini, Beth Israel Deaconess Medical Center, 21-27 Burlington Avenue, P.O. Box 15709, Boston, MA 02215. E-mail: lcavacin@caregroup.harvard.edu**.

Inquiry into infectious diseases in livestock

Call for detailed evidence

Following its initial call for views, the Royal Society's Inquiry into Infectious Diseases in Livestock is issuing a call for detailed evidence to be submitted by 30 November. The call has been circulated widely to those with an interest, and is available on the Inquiry website www.royalsoc.ac.uk/inquiry/index.html. together with the Inquiry's terms of reference, membership and first progress report.

If you would like to submit written evidence or views to this Inquiry but do not have access to the internet, please contact the Inquiry Administrator Saskia Gretton at the Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, tel 44 (0) 20 7451 2562; fax 44(0) 20 7451 2692.

Please note that, as previously announced, all evidence submitted to this Inquiry will be made publicly available unless those submitting it expressly request otherwise.

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THE ANGIOGENESIS RESOURCE CENTER

The Developmental Therapeutics Program (DTP, DCTD, NCI) has recently put into operation its Angiogenesis Resource Center. This effort was recommended by the Advisory Committee to the Director, NCI to facilitate research into the mechanisms of tumor angiogenesis and the development of drugs that target the essential tumor vasculature. The Center currently serves qualified investigators in the scientific community by providing human umbilical endothelial cells (HUVEC) and reference agents. Additionally, anti-angiogenesis testing is available without charge for pure natural products or synthetic compounds submitted by suppliers in universities, research institutes, government agencies, and pharmaceutical or biotechnology companies. For additional information on receiving any of these supplies and services, please visit our website at **http://dtp.nci.nih.gov** or contact the following individuals:

Mr. Richard F. Camalier
Biological Testing Branch
DTP, DCTD, NCI
Fairview Center, Suite 205
1003 West 7th Street
Frederick, MD 21701-8527
T: 301-846-5607
F: 301-846-6183
E: camalier@mail.nih.gov

Dr. Ravi K. Varma
Drug Synthesis and Chemistry Branch
DTP, DCTD, NCI
EPN, Room 831
6310 Executive Blvd.
Rockville, MD 20892
T: 301-435-9159
F: 301-480-4817
E: varmar@exchange.nih.gov

COURSES

Marine Biological Laboratory 2002 Courses in Neuroscience

Methods in Computational Neuroscience
August 4 - September 1, 2002
Application Deadline: March 1, 2002

Neural Development & Genetics of Zebrafish
August 18 - August 31, 2002
Application Deadline: March 1, 2002

Neural Systems & Behavior
June 16 - August 10, 2002
Application Deadline: February 1, 2002

Neurobiology
June 16 - August 17, 2002
Application Deadline: February 1, 2002

Neuroinformatics
August 17 - September 1, 2002
Application Deadline: March 1, 2002

Rapid Electrochemical Measurements in Biological Systems
May 9 - May 13, 2002
Application Deadline: February 6, 2002

Summer Program in Neuroscience, Ethics & Survival (SPINES)
June 15 - July 13, 2002
Application Deadline: February 1, 2002

Substantial financial assistance is available for many of our programs!

For more information and applications for these courses and others offered at MBL, please contact:
Carol Hamel, Admissions Coordinator
508-289-7401, admissions@mbl.edu
or visit our web-site:
http://courses.mbl.edu

Marine Biological Laboratoy
7 MBL Street
Woods Hole, MA 02543-1015

The MBL is an EEO/Affirmative Action Institution

Three **POSTDOCTORAL ASSOCIATES**. We seek collaborative Scientists with at least two of the following: (1) interest in scale-dependence in the relationship between biodiversity and ecosystem function, (2) skills in statistics and experimental design, (3) experience in database management and informatics. Each Associate will be involved with one or more of the following: (1) research on scale-dependence in the relationship between biodiversity and ecosystem function, (2) coordinating a multicampus graduate course, or (3) a working group at NCEAS. Ph.D. and excellent interpersonal skills desired. Collaborating institutions include National Center for Ecological Analysis and Synthesis (NCEAS)/University of California, Santa Barbara; Long-Term Ecological Research Program Network Office (LTER) at University of New Mexico; and Texas Tech University (TTU). Proposal and position description at **website: http://knb.ecoinformatics.org**. Initial funding for one year with possible extension for second year. Postdoctoral individuals will be located at NCEAS, LTER, or TTU. Screening of applications begins immediately and proceeds until positions are filled. To apply, send letter of application, statement describing qualifications and relevant research experience, and curriculum vitae via **e-mail** (strongly preferred) to: **postapp@nceas.ucsb.edu** (specify Biocomplexity NCEAS, LTER, OR TTU in subject field) or by mail to: **Dr. Sandy Andelman, NCEAS, 735 State Street, Suite 300, Santa Barbara, CA 93101-5504**. Three letters of recommendation (e-mail preferred) required. *The University of California is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL RESEARCHER to conduct research on host-plant resistance and biological control of Asian longhorned beetle *(Anoplophora glabripennis)*, an exotic tree pest from China. Research will involve evaluation and characterization of native natural enemies for control of Asian longhorned beetle, host selection and host preference as influenced by tree species, and impact of host preference in response to physiological parameters such as tree stress. Position available January 2002 (or as negotiated) for two years and is renewable annually depending on performance and availability of funds. Applicant will be expected to design and conduct experiments, produce publications, prepare grant proposals, and assist graduate students with their research. Ph.D. in entomology or a related field in the biological sciences required. Competitive salary commensurate with background and experience. Submit letter of application, curriculum vitae, and names and addresses of three professional references to: **Dr. Kelli Hoover, Department of Entomology, 501 ASI Building, Box S, Pennsylvania State University, University Park, PA 16802. Telephone: 814-863-6369; e-mail: kxh25@psu.edu**. *Penn State is committed to Affirmative Action, Equal Opportunity, and the diversity of its workforce.*

POSTDOCTORAL FELLOWSHIP at NIH. A Postdoctoral Fellowship to study mitotic functions of both mammalian polo kinase Plk and its budding yeast homologue Cdc5 during the G2/M phase of the cell cycle is available immediately. Projects include but are not limited to the characterization of novel components in mitotic entry and exit pathways regulated by polo. Send curriculum vitae and the names of three references to: **Dr. K. Lee, NIH–NCI, 9000 Rockville Pike, Building 37, Room 3E14, Bethesda, MD 20892. FAX: 301-496-8419; e-mail: kyunglee@pop.nci.nih.gov**.

POSTDOCTORAL POSITIONS

Postdoctoral positions are available to conduct research on the pharmacokinetics, pharmacodynamics, neuropharmacology, and gene regulation of γ-hydroxybutyric acid and its precursors in experimental animals. Research experience and a Ph.D. degree in one of the named areas are essential. Send curriculum vitae and names of three references to: **H.-L. Fung, Ph.D., University at Buffalo Department of Pharmaceutical Sciences, Buffalo, NY 14260. E-mail: hlfung@buffalo.edu**. *The University at Buffalo is an Equal Employment Opportunity/Recruiter.*

POSITIONS OPEN

POSTDOCTORAL POSITIONS
VASCULAR CELL AND MOLECULAR BIOLOGY
Harvard Medical School

Immediate openings for Postdoctoral Fellowship in The Vascular Research Division, Departments of Pathology, Brigham and Women's Hospital, Harvard Medical School, to study the following projects in vascular cell biology: (1) structure and function of proteins that constitute endothelial cell lateral junctions and regulation by stimuli are being studied. Presently, the emphasis is on VE-cadherin and claudin function in the context of permeability barrier and leukocyte trafficking during inflammation *(J. Cell Biol.* **148:**203, 2000; *J.Immunol.* **167:**2323, 2001). (2) Several aspects of T lymphocyte-endothelial cell adhesion are being studied. Emphasis is on biochemical and molecular identification of selectin ligands in T helper cells and endothelium using *in vivo* and *in vitro* models (see *Nature* **398:**718; *J.Immunol.* **162:**3193; *J.Immunol.* **167:**4476). (3) Intravital microscopy (IVM) techniques for leukocyte-blood vessel wall interactions. The focus is on endothelium and its junctional components during inflammation (see **website: http://fwl.bwh.harvard.edu**). Candidates should possess an M.D. and/or Ph.D. with a strong background in molecular biological, immunological, and biochemical techniques; skill with small animal models; and a recent degree. Send curriculum vitae, brief description of research, and the names/telephone numbers of three references by FAX/e-mail to: **Dr. F.W. Luscinskas, Brigham and Women's Hospital, Boston, MA 02115. FAX: 617-582-6188; e-mail: fluscinskas@rics.bwh. harvard.edu**. *We are an Equal Opportunity Employer.*

Yale University has a two-year **POSTDOCTORAL** appointment and a one-year (continuation possible) **LABORATORY TECHNICIAN** position (CEDN7421) available immediately to study experimental evolution and molecular genetics of RNA viruses (bacteriophages or eukaryotic viruses). Ongoing studies include fitness costs and benefits associated with coinfection, evolution of genetic exchange among viruses, game theory descriptions of microbial interactions, and evolutionary genetics of host adaptation **(website: http://www.eeb.yale.edu/faculty/turner)**. Experience with microbiological and/or molecular laboratory techniques is highly desirable, but excellent candidates with only modest experience will be considered. Both positions are fully benefited. Please submit curriculum vitae and list of references to: **Dr. Paul Turner, Department of Ecology and Evolutionary Biology, Yale University, Osborn Memorial Laboratories, 165 Prospect Street, P.O. Box 208106, New Haven, CT 06520-8106. E-mail: paul.turner@yale.edu**. *Yale University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL FELLOW
IDEC Pharmaceuticals

IDEC Pharmaceuticals Corporation is a leader in the development of immunologically active monoclonal antibodies and other biologics for therapeutic application to cancer and autoimmune disorders. We pride ourselves in the excellence of our team members and invite you to join us in San Diego, California.

In this role, you will conduct bioinformatic research on gene discovery of novel cell surface tumor antigens. Experience with bioinformatics and knowledge of tumor cell biology are requirements for this position. The ideal candidate will have a Ph.D. degree in a biologic discipline or an M.D. degree.

For immediate consideration, please send your résumé and salary history (indicating Job Code Number 0222) to: **IDEC Pharmaceuticals Corporation, Attention: Human Resources, Unit Number 220, P.O. Box 3175, Burlington, MA 01803. E-mail: hr_info@idecpharm.com**. Visit our **website: http://www.idecpharm.com**. *Equal Opportunity Employer.* NASDAQ/IDPH.

POSITIONS OPEN

BIOCHEMIST/MOLECULAR BIOLOGIST

Pomona College, a highly selective liberal arts college near Los Angeles and the founding member of The Claremont Colleges, has a staff opening for the **DIRECTOR** of the Molecular Biology Program sponsored by the Biology and Chemistry Departments. The responsibilities are to teach the upper-level molecular biology laboratory course for majors, to organize and meet with the senior seminar in molecular biology, to teach one upper-division course on the interface of chemistry and biology each year, and to teach a section of biochemistry laboratory. The Director is the chief administrative officer of the molecular biology program. The successful candidate will be expected to pursue a program of professional development. These activities could include an independent research program or collaborative research with a member of the faculty. Start-up funds are available if required. The Ph.D. in biochemistry, molecular biology, or a related field is required. Submit curriculum vitae, a statement of teaching philosophy (including a description of any experience), a statement of research plans and ideas, and three letters of recommendation to: **Professor Laura Hoopes, Molecular Biology Program, Pomona College, 609 North College Avenue, Claremont, CA 91711**. Consideration will begin December 15, 2001, and continue until the position is filled. For questions, **e-mail: lhoopes@pomona.edu**. *Pomona College is an Equal Opportunity Employer and encourages applications from women and members of underrepresented groups.*

TISSUE ENGINEERING
POSTDOCTORAL FELLOWSHIPS
Tissue Engineering Center
The Children's Hospital of Philadelphia
and University of Pennsylvania

We are seeking experienced Postdoctoral Fellows with strong backgrounds in two broad categories: cellular and molecular biology and engineering disciplines related to biomedical applications. Project fields include tissue engineering impacting on cardiovascular disease, orthopedics, soft tissue healing, organ regeneration, stem cells, gene therapy, and nanotechnology with emphasis on bioMEMS. Competitive salary and full benefits. Applicants with Ph.D. and/or M.D. degree should send their curriculum vitae and the names of three references to:

Robert J. Levy, M.D.
Director
Tissue Engineering Center
Children's Hospital of Philadelphia
Professor, University of Pennsylvania
School of Medicine
34th and Civic Center Boulevard
Abramson Research Building, Suite 702
Philadelphia, PA 19104-4318
FAX: 215-590-5454
E-mail: levyr@email.chop.edu

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

POSTDOCTORAL POSITION
MOLECULAR THERAPEUTICS
FOR HIV/AIDS
National Cancer Institute, NIH

Postdoctoral positions available in the Laboratory of Biochemistry, National Cancer Institute, to develop novel treatments for HIV and AIDS. This new translational research program uses molecular biology, genetics, and protein modeling to design immunotoxins and other molecules that kill persistently infected cells or block viral replication. Interested candidates must have a Ph.D. and/or M.D. degree and less than five years of experience in molecular biology, biochemistry, or related fields. Salary commensurate with experience. Please send curriculum vitae and the names of three references to: **Dr. Dean Hamer, Laboratory of Biochemistry, National Cancer Institute, Building 37, Room 6002, 37 Convent Drive, Bethesda, MD 20892-4255. Telephone: 301-402-5565; e-mail: deanh@helix.nih.gov**. *NIH is an Equal Opportunity Employer.*

POSITIONS OPEN

PREDOCTORAL AND POSTDOCTORAL POSITIONS
Keck Center, Houston, Texas

Computational and structural biology. The Keck Center offers an innovative, multidisciplinary training program that is fully integrated with the research programs of faculty affiliates at the six participating institutions: Baylor College of Medicine; Rice University; University of Houston; University of Texas Health Science Center, Houston; University of Texas M. D. Anderson Cancer Center; and University of Texas Medical Branch, Galveston. Research activities encompass a broad range of endeavors in the broad categories of informatics, multidimensional and functional imaging, and simulations of macromolecular and cellular behavior. More information and online application forms available at **website: http://www.keck.rice.edu**. A complete curriculum vitae and three letters of reference should be sent to: **Keck Center, Rice University, 6100 Main Street, MS 141, Houston, TX 77005**. *The majority of positions available are supported by federal grants that limit participation to citizens and permanent residents. Rice University is an Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS
Microbial Pathogenesis and Mg2+ and Mn2+ Transport Proteins

Positions available to decipher role of Mg2+ and Mn2+ in *Salmonella typhimurium* pathogenesis. Projects include microbial cell biology and transcriptional regulation of Mg2+ and Mn2+ transporters in *Salmonella typhimurium* pathogenesis and protein structure-function of Mg2+ and Mn2+ transporters including X-ray crystallography and electrophysiology of transporters after expression in *Xenopus* oocytes. Send curriculum vitae, pdf files of publications, and references (preferably by e-mail) to:

Dr. Michael E. Maguire
Department of Pharmacology
Case Western Reserve University
10900 Euclid Avenue
Cleveland, OH 44106-4965
E-mail: mem6@po.cwru.edu

NIH-funded **POSTDOCTORAL POSITION** available to study cell-mediated immune mechanisms in protection and pathogenesis of placental malaria. Seeking a highly motivated candidate with strong laboratory background in immunology and molecular biology, preferably with one to two years of postdoctoral research completed and some supervisory experience. Previous work in a malarious area a plus. Must be willing to spend up to nine months each year working in Kenya. Send curriculum vitae, statement of research interests, and three letters of reference to: **Julie Moore, Ph.D., Department of Medical Microbiology and Parasitology, College of Veterinary Medicine, University of Georgia, Athens, GA 30602. FAX: 706-542-0059; e-mail: julmoore@veg.uga.edu**. *The University of Georgia is an Equal Employment Opportunity/Affirmative Action Institution.*

POSTDOCTORAL POSITION

One Postdoctoral position to work in the area of RNA processing mechanism in *Trypanosoma cruzi* is available immediately. Several RNA binding protein genes were cloned from *T. cruzi* using yeast three-hybrid system in our laboratory. We will characterize the functions of these genes using gene knockout, tetracycline regulation, RNA interference, and microarray. The successful candidates should have an M.D. or Ph.D. and have received training in molecular biology, cellular biology, genetics, or biochemistry. Experience with yeast hybrid systems, pathogenesis, and/or tissue culture techniques will be helpful. Please send curriculum vitae and statement of research interests to: **Dr. Gregory A. Buck** or **Dr. Ping Xu, Microbiology and Immunology Department, Virginia Commonwealth University, Richmond, VA 23298-0678. E-mail: pingxu@hsc.vcu.edu**. The period of the initial appointment will be for two or three years.

POSITIONS OPEN

POSTDOCTORAL POSITION
JANUARY 2002
Sensory Neuroethology
Woods Hole, U.S.A.

The Boston University Marine Program in Woods Hole, Massachusetts, has a Postdoctoral position available for two and a half years starting January 2002. The NSF-funded research is focused on determining the hydrodynamic mechanosensory function of lobster antennules with electrophysiological and behavioral techniques. The work is part of a large program including fluid dynamics and robotics designed to understand the multisensory navigation signals that can be extracted from underwater odor plumes. Electrophysiological expertise preferred.

Inquiries and applications:

Dr. Jelle Atema
Professor and Director
Boston University Marine Program
Marine Biological Laboratory
Woods Hole, MA 02543 U.S.A.
Telephone: 508-289-7499
FAX: 508-289-7950
E-mail: atema@bu.edu

POSTDOCTORAL POSITIONS available for recent Ph.D. recipients. Strong background in molecular and cellular biology or protein chemistry is essential. See our current research information at **website: http://repromed.ucsd.edu/faculty/rmshim.html**. Send curriculum vitae to: **Shunichi Shimasaki, Ph.D., Department of Reproductive Medicine, University of California San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0633. E-mail: sshimasaki@ucsd.edu**.

GRANTS

We are pleased to announce that a special grant of $200,000 per year for **RESEARCH IN DYSTONIA** will be jointly sponsored by the Bachmann-Strauss Dystonia and Parkinson Foundation and the Dystonia Medical Research Foundation. Deadline: December 30, 2001. For more information, please contact: **Dystonia Medical Research Foundation; Telephone: 312-755-0198; website: http://www.dystonia-foundation.org**.

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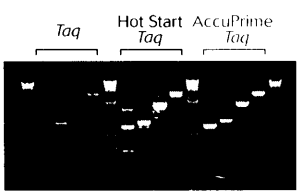
Now you can amplify only the specific DNA targets you want, the first time, without amplifying any non-specific bands. Thanks to the unmatched technology of AccuPrime™ *Taq* DNA Polymerase, you can prevent mispriming throughout each and every cycle of PCR.

Advanced hot-start. AccuPrime™ *Taq* combines Platinum® hot-start technology with a proprietary thermostable accessory protein that remains active throughout all PCR cycles and provides you with unprecedented control over mispriming. Unlike conventional DNA polymerases, with AccuPrime™ *Taq* you get consistent extension results of targeted and specific PCR product.



Comparison of PCR specificity with various *Taq* Polymerases.

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