TENURE-TRACK FACULTY POSITIONS in Stem Cell Columbia Stem Cell Initiative Tapping the Potential of Stem Cells for Human Health Research at Columbia University Medical Center

The Columbia Stem Cell Initiative (CSCI; website http://www.ColumbiaStemCell.org) brings together more than 120 groups working to tap the potential of stem cells for human health. Their research covers all aspects of stem cell research, from basic mechanisms of self-renewal and differentiation in model organisms to clinical and preclinical applications in disease contexts. To further strengthen the program and to create strategic overarching projects from basic science to regenerative medicine, we seek to recruit three new faculty members at the ASSISTANT PROFESSOR and ASSOCIATE PROFESSOR level.

Applicants’ research may focus directly on stem cell biology or therapy or may use stem cell-derived cells as a central experimental tool for studying disease or physiological mechanisms. There is no restriction as to tissue or disease area.

Successful candidates will be members of the Department of Rehabilitation and Regenerative Medicine, and will also generally hold a joint appointment in a basic science department relevant to their research field. Faculty will be provided with an attractive startup package and a salary commensurate with experience. Modern laboratory space in proximity to other stem cell groups and other translational centers will be provided. The new recruit will have access to all the facilities and potential for interactions and collaboration provided by CSCI at both the Medical School and Morningside Heights campuses of Columbia University.

Applications should be sent to Dola Sengupta (Program Coordinator, CSCI, e-mail: d2865@columbia.edu). Candidates should submit a cover letter, curriculum vitae, research statement, up to three publications, and contact information for three people who will write letters of reference. Applications should be received by December 15, 2011. Inquiries may be addressed to Christopher Henderson (Director, CSCI; e-mail: ch2331@columbia.edu).

Columbia University is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION in Chemical Biology Department of Chemistry and the Carolina Center for Genome Sciences University of North Carolina at Chapel Hill

The Department of Chemistry and the Carolina Center for Genome Sciences at the University of North Carolina (UNC) at Chapel Hill invite applications for a tenure-track faculty position at the ASSISTANT PROFESSOR level. Areas of interest include chemical biology and chemical genomics. However, all areas of chemistry, broadly defined, will be considered. Successful candidates are expected to develop an exceptional research program and to teach at both the graduate and undergraduate levels. Research space will be allocated in the new Genome Sciences Building, which will contain faculty from the Departments of Biology, Chemistry, Statistics and Operations Research, and Computer Science.

Applications will only be accepted electronically. Applicants should submit a single PDF containing (in this order) a cover letter, curriculum vitae, research plan, and teaching statement, and up to three reprints/preprints to website: http://jobs.unc.edu/250193. Applicants should also arrange to have three letters of recommendation sent to e-mail: chemsearch@unc.edu. Review of applications will begin December 1, 2011, and will continue until the position is filled.

Questions should be directed to: Chair, Faculty Search Committee, Department of Chemistry, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3290, e-mail: chemsearch@unc.edu.

UNC is an Equal Opportunity/Affirmative Action Employer, and strongly encourages applications from women and minorities.

FACULTY POSITION in Developmental Integrative Biology

The University of North Texas (UNT) seeks candidates at the Associate or Full Professor level to join our growing Developmental Integrative Biology Research Cluster (DIB; website: developmentalbiology.unt.edu) comprising nine faculty and more than 50 graduate students and postdoctoral fellows. Areas of focus include developmental aspects of functional/comparative genomics, physiology, neuroscience, cell biology, endocrinology, or genetics, with expertise in the cardiovascular system, respiration, stress response, and/or metabolism. The candidate must have an established international reputation and an externally funded research program. Candidates will have a Ph.D. in Physiology or related field, have previous teaching experience, and are expected to support the instructional and research goals of the DIB at both the undergraduate and graduate levels. Competitive startup funding and salary will be provided. Laboratory space is available in the newly constructed state-of-the-art Life Sciences Complex. For further information, see websites: http://www.unt.edu, http://www.biol.unt.edu, and http://research.unt.edu/centers.

All applicants must apply online at website: http://facultyjobs.unt.edu/applicants/CentralAuth/FindJobs?51806.

Questions should be directed to Michael Hedrick, Search Committee Chair, e-mail: michael.hedrick@unt.edu. Applications will be reviewed beginning October 30, 2011, and will continue until the search is closed. UNT is an Affirmative Action/ADA/Equal Opportunity Employer.

ASSISTANT PROFESSOR OF BIOLOGY

Tenure-track position beginning Fall 2012 in neurophysiology to join the Biology department and contribute to our growing Neuroscience program. Responsibilities will be to teach introductory molecular/cellular biology and either upper level courses in biology and neuroscience, and to direct undergraduate research in the College’s required Independent Study Program. Preference will be given to applicants who can advise student research projects focused on electrophysiology, microscopy, histology, and/or developmental biology. Applicants should have a Ph.D.; postdoctoral research and/or teaching experience preferred. Send curriculum vitae, statements of research and teaching philosophy, graduate and undergraduate transcripts, and three letters of recommendation to Dr. D. Fraga, Chair of Biology, the College of Wooster, Wooster, Ohio (e-mail: dfraga@wooster.edu). Electronic applications are preferred, and should be received by December 8, 2011, for full consideration. The College of Wooster is an independent college of the liberal arts and sciences with a commitment to excellence in undergraduate education. The College values diversity, strives to attract qualified women and minority candidates, and encourages individuals belonging to these groups to apply. Wooster seeks to ensure diversity by its policy of employing persons without regard to age, sex, color, race, creed, religion, national origin, disability, veteran status, sexual orientation, gender identity and expression, or political affiliation. The College of Wooster is an Equal Opportunity/Affirmative Action Employer. Employment is subject to federal laws requiring verification of identity and legal right to work in the United States as required by the Immigration Reform and Control Act. Drug-free workplace.

ASSISTANT PROFESSOR OF BIOLOGY

Penn State Brandywine invites applications for a tenure-track Assistant Professor of Biology; start August 2012. Teach undergraduate biology. Publication of research in refereed journals and service activities expected. Ph.D. in biology or closely related area required; prefer expertise in molecular or cell biology. Applications from candidates interested in the University’s new campus campus are encouraged and will be considered. For information, see website: http://www.psu.edu/ur/cmpcoll.html. To learn more about the position and how to apply, visit website: http://www.psu.jobs/search/Opportunities.html and follow the “Faculty” link. Affirmative Action/Equal Opportunity Employer.
Postdoctoral Fellowships in Genomic Biology at the University of Illinois at Urbana-Champaign

The Institute for Genomic Biology at the University of Illinois at Urbana-Champaign offers a number of fellowships for truly exceptional young scholars who have completed their Ph.D. within the last several years, and are looking for a stimulating and supportive interdisciplinary environment to carry out independent and collaborative research in the field of genomic biology. IGB Fellows will spend up to three years conducting research in one of several research themes in the Institute, and ideally this research will also overlap with two or more of these thematic areas. Visit www.igb.uiuc.edu/content/fellows-application for more information about the Institute, the research themes and the application procedures. The closing date for all positions is December 15, 2011. Fellows will be announced on or about January 15, 2012.

Biocomplexity
We seek a scientist with interests that include the evolutionary process, systems biology, and ecosystem dynamics. The successful candidate will join a multidisciplinary group exploring collective effects in biology from a strongly quantitative perspective. Ongoing research addresses the evolution of translation, the role of horizontal gene transfer in shaping communities of microbes and phages, microbiology, and the systems biology of cells and ecosystems. (Nigel Goldenfeld, Theme Leader)

Regenerative Biology & Tissue Engineering
The Fellow will be involved in one or more of our multidisciplinary projects related to regenerative biology and harnessing the potential of adult/embryonic stem cells for tissue engineering applications. Of particular interest is leveraging theme expertise in biomaterials fabrication, drug delivery systems, microfluidics-based in vitro experimental platforms, and in vivo evolution-ary biology and regeneration medicine studies. The ideal candidate will have experience in one or more areas of (stem) cell biology, induced pluripotent cell technology, biomaterials, microfluidics, and/or tissue engineering. (Paul Kenis, Theme Leader)

Genomic Ecology of Global Change
The Fellow will be involved in a cross-disciplinary project investigating how changes in networks of genes affect plant and ecosystem function when challenged by elements of global change, including greater carbon dioxide, ozone, drought, temperature, disease and herbivory. The ideal candidate will have a strong background in plant biology and a record of expertise in molecular biology, genomic ecology, physiology or modeling of gene networks or ecosystem function. The ability to work creatively and productively in a highly interdisciplinary and collaborative environment is essential. (Don Ort, Theme Leader)

Energy Biosciences Institute
The Energy Biosciences Institute (EBI) is an externally funded theme within the IGB. It is the largest academia collaboration to date, currently receiving $500 million over ten years and focusing on the development of second-generation biofuels intended to significantly slow the rate of global climate change. Its research ranges from systems biology of fermentative organisms to quantification of ecosystem services provided by new sustainable biofuel crops. The full range of research can be seen at www.energybiosciencesinstitute.org. We seek an outstanding candidate across these areas interested in applying genomic biology to understanding and developing opportunities for improving sustainable biofuel production. Research can be at any point in the supply chain from improving feedstocks and their environmental sustainability to producing fuel. The appointee will work in an interdisciplinary laboratory of over 100 exceptional colleagues focused on this challenge. The appointment would also involve collaboration with our partners: UC Berkeley and BP. (Steve Long, Theme Leader)

Cellular Decision Making in Cancer
We seek an individual with interest in quantitative biology. Our theme faculty members have expertise in single molecule biophysics, genomics and chemical biology. Building on the current strengths on cell death, antiviral signaling, stem cell differentiation, live cell probing of decision making and genome instability modeling, we aim to develop a multiple-scale narrative on how single molecule events in the cell are integrated into the protein networks to determine the cell fate. Cancer is a major focus area of research. (Taekjip Ha, Theme Leader)

Mining Microbial Genomes
The Fellow will be involved in one of several multidisciplinary projects focused on (1) the discovery, design, and development of novel antibiotics, or (2) the assignment of function to novel enzymes discovered in genome projects. The ideal candidate will have a proven record of expertise in microbially produced natural products and/or enzyme evolution. We are interested in candidates with previous experience in bacterial metabolism, bacterial genetics, molecular biology, biochemistry, enzyme evolution, metabolic engineering, organic synthesis, mass spectroscopy, bioinformatics and/or metagenomics. (Bill Metcalf, Theme Leader)

Genomics of Neural and Behavioral Plasticity
We seek a biologist with strong bioinformatics skills and training in one or more of the following areas: evolutionary biology, neuroscience, animal behavior, molecular biology, genomics or systems biology. Applicants with expertise in both biology and bioinformatics will be strongly preferred. The successful candidate will join a multidisciplinary team that is using genomics to identify both conserved and novel mechanisms of neural and behavioral plasticity in diverse animal systems. Fellows are expected to conduct research that contributes to the development of the theme's goals by integrating components from theme members' individual research programs. (David Clayton, Interim Theme Leader)

Host-Microbe Systems
The Fellow will be responsible for developing DNA isolation, microbial isolation, 16S rRNA gene sequencing and other metagenomic analysis techniques for surveying microbial content of the human and nonhuman primate vaginal and intestinal microbiomes. Additional responsibilities will include the culture isolation and genome sequencing and other molecular biology techniques to examine microbial, metabolic, and immunologic contents, phylogenetic comparisons, and performing analyses using bioinformatics and other computational and analytical methods. The ideal candidate will have a strong background in microbiology, biochemistry, or a related field with experience and expertise in molecular microbial ecology and bioinformatics and/or bio-statistics. (Brenda Wilson, Theme Leader)

Business, Economics, and Law of Genomic Biology
We seek an individual with training in economics, business, law, or strategy and with an interest in technology entrepreneurship, technology industries, and biotechnology. The Fellow will join a multidisciplinary group that includes business, law, and technology experts; agricultural economics faculty; and personnel from the campus Office of Technology Management. Our theme is exploring issues in university-industry technology transfer, industry evolution, intellectual property protection, the competitive and cooperative dynamics for both entrepreneurial start-ups and existing corporations, the impact that globalization of biotechnology has on the evolution of industry, and the position of U.S. firms in the global marketplace. (Jay Kesan, Theme Leader)

The University of Illinois is an Affirmative Action/Equal Opportunity Employer
www.igb.uiuc.edu
The Many Fields of Neuroscience
Shifting from Synapses to Society

Neuroscience has come a long way since the staining and identification of the neuron by Camillo Golgi and Ramón y Cajal over a century ago. Now the field has joined forces with other disciplines such as chemistry, computer science, engineering, and psychology, creating areas of focus that range from individual cells to social communities. Combining specialties has helped progress the understanding of social behavior as well as various psychological disorders, which some say are the final frontiers in biological science. By Jacqueline Ruttimann Oberst

Ask neuroscientists to define the area that they are studying and one is bound to get a different answer every time. No longer fitting into one niche, the field can delve into the microcosm of molecules and cells but also expand out into the macrocosm of mankind itself.

“The complexity of issues we’re addressing now is at a completely different level than what we did 15 years ago,” says Nora Volkow, director of the U.S. National Institute on Drug Abuse at the National Institutes of Health (NIH). “In the past, it used to be one receptor in one area of the brain. Now we have the tools to monitor the complete system at any given point in time—that is, the entire brain and how it changes at short- and long-term intervals. We now can start to study all the proteins in the cell and their interactions, how cells communicate with one another to create networks, and how these relate to behaviors.”

Within the past 10–20 years, three areas have come on the scene: transdifferentiation, optogenetics, and social neuroscience. From the Lilliputian to the large-scale, these subfields all aid in puzzling together the various pieces that comprise the brain.

CELL FATE REALIZED: TRANSDIFFERENTIATION
Stem cells and regenerative medicine have worked their way into the field of neuroscience in the form of transdifferentiation. In this process, either a tissue-specific stem or precursor cell begets cells that it normally was not destined to produce. Transdifferentiation occurs in nature, albeit rarely. For example, when the lens of the eye is removed in salamanders, iris cells fashion themselves into lens cells.

Fifty years ago, cell fate conversion consisted of a cloning technique called somatic cell nuclear transfer, which allows somatic cell DNA to be inserted into an enucleated egg cell. The technology has spawned such animals as Dolly the sheep but has fallen short of cloning non-human primates. In 2005, the field became checkered when a South Korean research team, led by Woo Suk Hwang, claimed to have derived human embryonic stem cells using this technology, only to subsequently admit that they fabricated the data.

However, the field was redeemed one year later when Shinya Yamanaka’s group at Kyoto University in Japan utilized four embryonic stem cell genes—Oct3/4, Sox2, c-Myc, and Klf4—to convert mouse and human skin fibroblasts into embryonic stem cell–like cells called induced pluripotent stem (iPS) cells. Since then other researchers have used different gene or chemical concoctions to turn fibroblasts into iPS cells.

“One uses recipes kind of like in “The Joy of Cooking,”” explains Story Landis, director of the U.S. National Institute of Neurological Disorders and Stroke at the NIH. “Now you don’t have to start at an embryonic stem cell or induce a pluripotent stem cell. Instead, you can take a fibroblast and treat it in a special way to directly turn it into various cell types.”—Feng Zhang

“By turning on or off specific neurons, one can identify their place in particular neurocircuits and how these circuits function in normal behavior or go haywire in disease. We can use this technology to identify molecular targets and develop better drugs.”—Feng Zhang

UPCOMING FEATURES
Focus on China—December 9
BS/MS Scientists (online only)—January 13
Faculty: Lab Culture—February 3
THE LUNDBECK FOUNDATION

JUNIOR GROUP LEADER FELLOWSHIPS

The Lundbeck Foundation hereby invites applications for five fellowships within biomedicine and two within natural sciences which will be granted to especially promising young researchers and their research groups. Priority will be given to at least three biomedical fellowships within the Foundations’s focus areas: neurology, psychiatry and allergology/immune modulation.

The fellowships are awarded for five years and each fellowship amounts to DKK 10 million (approx. Euro 1.3 million).

The subject area should be frontline basic- or applied research within the scope of the Foundation’s grant strategy, which can be seen at www.lundbeckfonden.dk

The fellowships may well attract Danish or foreign researchers from abroad who wish to move to Denmark and continue their research here. The call is also open for applicants at Danish universities and university hospitals.

The fellowships are intended for seven researchers who are qualified to establish or develop their own research groups within the health- or natural sciences and who have received their Ph.D. degree within the last 5-7 years.

The application should include an account of the project’s research plan, collaborators, budget and how the research group is envisioned to be placed within a Danish research institution. In addition, it should include a letter of intent from a resident researcher at the host institution, who makes him- or herself available as a mentor to facilitate the applicant’s establishment of the research group as an integral part of the host institution. Further guidance is provided in the application form.

The application, written in English, should be sent via the Foundation’s Electronic Application System for Junior Group Leader Fellowships 2012 at www.lundbeckfonden.dk no later than December 15, 2011.

For further information please contact Ulla Jakobsen, Science Manager at the Lundbeck Foundation, phone: (+45) 39 12 80 11 or at mail@lundbeckfonden.dk

Tufts University

School of Medicine

Faculty Positions in Neuroscience

The Department of Neuroscience (www.neurosci.tufts.edu) at Tufts University School of Medicine is expanding by adding tenure-track faculty positions. Positions are available at Assistant, Associate and Full Professor levels. The department will build on its core strengths and focus on the study of synapses, disorders of the nervous system and neuron-glial interactions. We are particularly interested in building on our research that is relevant to epilepsy, depression, neurodegenerative disorders and the neurobiology of obesity. We are seeking candidates who use innovative approaches to investigate problems that cross levels of investigation from molecular and cellular to systems and/or behavioral neuroscience. Candidates using molecular, genetic, electrophysiological and/or imaging methodologies to study neurons, synapses and networks are particularly encouraged to apply. We offer generous start-up packages, newly renovated laboratory space and a highly collaborative environment offering opportunities for both basic and translational research.

Applicants should hold a Ph.D. and/or M.D. degree and have several years of productive postdoctoral experience. Successful candidates will be expected to develop thriving, well-funded research programs and to contribute to graduate and medical education. Please submit electronic applications including a CV, a statement of research interests and the names and email addresses of at least three references to: neurosci-facultyrecruitment@tufts.edu.

TUSM is an Equal Opportunity Affirmative Action Employer. Women and minorities are encouraged to apply.

HARVARD UNIVERSITY

CENTER FOR BRAIN SCIENCE FACULTY POSITION

The Center for Brain Science is seeking an Assistant Professor who works in the area of systems neuroscience, broadly construed. We are particularly interested in candidates whose research programs apply novel experimental and computational approaches to the study of the structure and function of neural circuits and their relationship to behavior. Successful candidates will hold an academic appointment in a participating department in the Faculty of Arts and Sciences at Harvard University.

The Center for Brain Science brings together scientists involved in research on systems neuroscience. Our aims include discovering and understanding the neural circuits that underlie behavior in diverse animal species. CBS fosters interactions across disciplinary boundaries—faculty from several academic departments share neighboring research and meeting space and common research facilities; its connections reach out across the University. Further information about the Center for Brain Science is available at http://cbs.fas.harvard.edu/.

Candidates should have demonstrated excellence in both research and teaching. A strong doctoral record is required and postdoctoral experience preferred. Teaching opportunities will include offerings at both undergraduate and graduate levels.

To apply, please submit a cover letter, curriculum vitae, research statement, statement of teaching philosophy, up to three publications, and contact information for three people who will write letters of reference on your behalf to http://academicpositions.harvard.edu/postings/3718. Your application, including letters of reference, should be complete by 28 November 2011.

Applications from, or nominations of, women and minority candidates are strongly encouraged. Harvard University is an Affirmative Action/Equal Opportunity Employer.
“We hope to readily reprogram easily accessible somatic cells from a patient with one of these neurological diseases into iPS cells or directly into neurons to model the disease and develop personalized treatments.”
—Sheng Ding

The technique has various applications in neuroscience.
“Transdifferentiation gives you an unprecedented opportunity to study neurological diseases such as autism, schizophrenia, Alzheimer’s disease, and Parkinson’s disease,” explains Sheng Ding, senior investigator of the Gladstone Institute of Cardiovascular Disease at the University of California, San Francisco. “We hope to readily reprogram easily accessible somatic cells from a patient with one of these neurological diseases into iPS cells or directly into neurons to model the disease and develop personalized treatments.”

Postdoctoral researchers and graduate students interested in the field should enter now, according to Ding. He proposes that new therapeutics developed through iPS cell technology will be available in 10 years.

SHEDDING LIGHT: OPTOGENETICS
The brain consists of approximately 100 billion neurons—about the same number as stars in a galaxy. Each neuron can also have anywhere from 1,000 to 10,000 synapses. Depending on the type of information that a neuron is sending, the signaling speeds can vary from 0.6 m/s (in the case of transmitting pain) to upwards of 120 m/s (in the case of muscle stimulation). Hence neuronal mass and speed make studying brain functions daunting.

Scientists have used a variety of techniques to elucidate neuronal function, but each has its own shortcomings. Electrophysiological techniques that physically delve electrodes into brain tissue are restricted by the depth to which probes can be placed and have limited ability to distinguish a single cell type amongst the myriad of cells interspersed throughout the brain. Pharmacological or genetic manipulations can help isolate signals from specific cell types; however, the results are often slow to take effect, from hours or days to months.

Enter optogenetics or “the merging of optics and genetics to allow control of very well-defined events within a particular cell,” explains Karl Deisseroth, associate professor of psychiatry and bioengineering at Stanford University, who coined the term.

Gero Miesenböck, a physiology professor at the University of Oxford describes the technique as using “two flavors of light-responsive proteins: sensors that light up when a neuron becomes active and actuators that absorb light and turn activity on or off.”

Deemed “Method of the Year” by Nature Methods in 2010 and highlighted in the “Insights of the Decade” special section by Science that same year, optogenetics is a newcomer in the neuroscience realm, emerging less than 10 years ago.

This field however, borrows from observations and discoveries made 30–40 years ago. In 1979, Francis Crick pointed out the difficulty of using electrodes to pinpoint specific neurons in the brain and later speculated that light might be able to hone in on one type of cell and leave others unaltered. At the time though, no neuroscientist knew how to make neurons responsive to light. Over the years, biologists discovered many different kinds of light-responsive proteins, or opsins. Among these, ion channels that open when a chemical co-factor, all-trans-retinal, absorbs photons were found in algae.

However, the genes encoding these opsins were not identified until 2003, and neurobiologists focused rather on cell-directed tools that used combinations of custom-made chemicals and genes to alter neuronal function. Until 2005, when Deisseroth’s group discovered that these microbial opsins could precisely control neurons in response to light and, in 2006, showed that even adult vertebral tissues, including the brain, express natural all-trans-retinal.

Prior to these studies, Miesenböck’s lab had developed other strategies for optogenetic control of nerve cells by reassembling fruit fly (Drosophila) opsin signaling pathways in neurons or combining light-activated chemicals with introduced genes. In 2005, they “remote-controlled” fly behavior with light. His group also developed a genetic means to visualize nerve cell activity by creating synapo-pHluorin, a pH-sensitive form of green fluorescent protein.

Deisseroth’s group subsequently demonstrated the use of microbial opsins for neuronal control in freely moving mammals. They described fiberoptic interfaces that can be implanted in the brain to provide the light needed to activate these channels and target specific neurons in the recesses of the brain. Now, optogenetics is ubiquitous in neuroscience, and a variety of tools can be used to either activate or inhibit a neuron.

“It offers the best of all worlds: You can manipulate a specific cell type within a specific brain region, and you can do so with millisecond precision. This means that we can start to tease apart the functions of different cell types, activating or inactivating them to causally test their roles in brain continued on p. 712 »
Platform Managers in Neuroscience

Linköping University is one of Sweden’s six large universities, currently enrolling 27,000 students. The university recently launched a Centre for Neurobiology, involving some 20 independent research groups from two faculties: the Faculty of Medicine and the Faculty of Science and Engineering.

With the goal of developing advanced common research platforms, the Centre for Neurobiology is now announcing three platform manager positions. In addition to running each platform and working together with the different research groups, there is also an excellent opportunity for the successful candidate for conducting independent technology-oriented research. We are currently seeking experts in the following areas: Rodent transgenesis, Computer-based imaging, and Behavioural phenotyping.

For more details regarding the Centre, the positions, and how to submit your application please go to: http://www.hu.liu.se/neuro?l=en. For information regarding Linköping University, please go to: http://www.hu.liu.se?l=en, http://www.liu.se?l=en.

Neuroscience postdoc programme

Linköping University is one of Sweden’s six large universities, currently enrolling 27,000 students. The university recently launched a Centre for Neurobiology, involving some 20 independent research groups from two faculties: the Faculty of Medicine and the Faculty of Science and Engineering.

The Centre for Neurobiology is now seeking Postdoctoral Fellows (2+2 years) within several neuroscience research areas: Addiction, Animal Behaviour, Electrophysiology and Circuits, Neuroimaging and Neuroengineering, Neurodegeneration, Neuroendocrinology, Neurodevelopment, Pain, and Psychiatric Functional Brain Imaging.

For more details regarding the Centre, the different research labs involved in the program, and to submit a letter-of-intent please go to: http://www.hu.liu.se/neuro?l=en. For information regarding Linköping University, please go to: http://www.hu.liu.se?l=en, http://www.liu.se?l=en.

Faculty of Medicine

Professorship/Qualification Fellowship in Systems Neuroscience

The Kavli Institute for Systems Neuroscience of the Faculty of Medicine at the Norwegian University of Science and Technology (NTNU) invites applications for a faculty position in systems neuroscience. The new position is part of NTNU’s strategic effort in the field of neuroscience.

We seek applicants with experience and interest in using state-of-the-art molecular and cellular technologies to understand neural networks and behaviour. The successful candidate holds a Ph.D. and has experience leading a research team and attracting international funding. The candidate has a track record in both molecular-cellular and systems neuroscience, with outstanding publications, and she/he demonstrates ability to develop an internationally competitive research programme. Participation in teaching activities at master’s and PhD level is required.

The applicant will benefit from the strong infrastructure at the Kavli Institute for Systems Neuroscience at NTNU (www.ntnu.no/cbm). Start-up funding, including scientific equipment and PhD/post doctoral fellows, is negotiable. The position is advertised at the rank of Professor but may alternatively be defined as a qualification fellowship for a period of no longer than 3 years in case of sufficient future potential. Young applicants not yet qualified for full professorship are thus encouraged to apply.

Applicants should submit a cover letter, a CV with a complete publication list, copies of 5 selected papers, a summary of research achievements, a research plan, and 3 letters of reference (referees should send letters directly to Edvard Moser, Director of the Kavli Institute, edvard.moser@ntnu.no).

The complete advertisement is available at www.jobbnorge.no.

Submit applications through www.jobbnorge.no within 1 December, 2011.

For further information about the position contact Edvard Moser, edvard.moser@ntnu.no, tel. +47 73598278; information about the application process contact Brit Lebeck Fladvad, HR section, Faculty of Medicine, brit.fladvad@ntnu.no.

See also http://www.medisin.ntnu.no/eng/
function and behavior,” comments Joanna Mattis, a graduate student in Deisseroth’s lab.

Feng Zhang, a former graduate student of Deisseroth who is now an assistant professor of neuroscience at the Massachusetts Institute of Technology, adds: “By turning on or off specific neurons, one can identify their place in particular neurocircuits and how these circuits function in normal behavior or go haywire in disease. We can use this technology to identify molecular targets and develop better drugs.”

Optogenetics studies from Miesenböck and Deisseroth’s groups, as well as others, have literally and metaphorically shed light on neural codes relevant to Parkinson’s disease, autism, schizophrenia, drug abuse, anxiety, and depression.

For future and current graduate students in neuroscience, Deisseroth advises that they follow their passion. “Students should pursue the things that interest them,” comments Deisseroth. “The history of optogenetics is a parable for maintenance of basic science research. These days everybody is trying to justify their biology work in terms of disease relevance. Whereas deep insights into neurology and psychological diseases have been provided using optogenetics, the essential tools for this work were taken from algae and archaeabacteria, remote and odd forms of life that were studied for many decades by people who had no consciousness of disease relevance and studied them just for their beauty.”

Because of the breadth and depth of data that is now coming into the field, Zhang advises students to get multidisciplinary training.

“Things are becoming high throughput and experiments are done on a shorter timescale. Before, it took a year to test a hypothesis, now one can do it in a couple of months,” he says. “Don’t just get training in biology, but also in computational biology and physics. The more versatile a person is, the more contributions this person will be able to make.”

**STRENGTH IN NUMBERS: SOCIAL NEUROSCIENCE**

The brain does not work in isolation and neither do humans. We are, after all, social creatures.

A new field has arisen from this idea—social neuroscience—the study of the neural, hormonal, cellular, and genetic mechanisms that define social species.

For 40 years, traditional neuroscience considered the nervous system as an isolated entity devoid of any significant influences from the social environment.

“Biology and social sciences, at best, were at odds,” explains John Cacioppo, who is one of the founders of the field and is now director of the Center for Cognitive and Social Neuroscience at the University of Chicago. “Biologists thought social processes had little relevance to the basic structure and function of human biology. Social scientists thought we were centuries away from biology being able to contribute to solutions to world wars, great depressions, and social injustices. There have been a lot of changes since then.”

These changes came from the convergence of data from psychology and biology studies using traditional animal models. For example, knowledge about social bonding (attachment, altruism, trust) advanced from the discovery that oxytocin and vasopressin receptors are localized in different brains regions of the more social prairie vole compared to the more solitary montane and meadow voles. Because of this research, clinical studies are emerging investigating intranasal oxytocin as a treatment for autism.

“Social neuroscience has an application for various mental disorders, for example, depression and autism, since these all have a social component,” states Cacioppo.

The field draws upon numerous neurobiological techniques such as functional magnetic resonance imaging (fMRI), transcranial magnetic stimulation, electrocardiograms, and studies of patients with focal brain lesions.

“Social neuroscience is becoming more of a heavyweight in science now that we have tools, theories, and a common language to communicate with one another,” says Greg Norman, a postdoc in Cacioppo’s lab. “This is the science of the mind—not just psychology, not just biology—but the integration of the human condition. It encompasses many fields. You can be a geneticist or a sociologist and still be a social neuroscientist.”

This multidisciplinary approach can be both a strength and a weakness. Although more data is generated from collaboration, each discipline has its own jargon, often obfuscating each level of analysis.

“There is a challenge in trying to get people to use a common language instead of just talking past each other. And trying to understand how all the pieces fit into a whole is really difficult,” adds Norman. “Our field encompasses genetics all the way to the study of societies. You can be in this field for 100 years and still not comprehend its breadth.”

To avoid competition among the disciplines and bring them together, the Society for Social Neuroscience, for which Cacioppo is president, has separate awards—one for animal science and one for human science. But he hopes that in time, “we won’t have this distinction.”

**STATE OF (NEURO)SCIENCE**

These additional facets of neuroscience—transdifferentiation, optogenetics, social neuroscience—reflect the overall state of science.

“Fifty years ago a solitary genius was doing the work, now the geniuses are working in teams,” says Cacioppo.

It’s not only how science is performed that has changed, but also budgets.

“It’s the best of times and it’s the worst of times,” says Landis. “There are wonderful opportunities to use all of this technology but not enough funding for all of the possible projects. Choosing the most promising areas to pursue will require difficult choices.”

Jacqueline Ruttmann Oberst is a freelance writer living in Chevy Chase, Maryland.

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FOCUS ON NEUROSCIENCE

POSTDOCTORAL FELLOW
Neuroscience

A Postdoctoral fellow position is available in the lab of Michael J. Friedlander, Ph.D., to work on effects of temporal patterns of synaptic activation on long term plasticity in neocortex in normal and injured brains. Interest and skills in synaptic physiology, optical imaging and synaptic plasticity are preferred. Position includes competitive salary and benefits, state of the art facilities, and dynamic neuroscience research community. There is the opportunity to join a major new neuroscience program and group, and to develop one’s own projects, as well. The University Research Institute is located in picturesque Roanoke Valley in Roanoke, VA, midway between Washington, DC and Charlotte, NC. Please send letter of interest, CV and list of references to: Michael J. Friedlander, Ph.D., Executive Director and Provost, Virginia Tech (PhD or MD) in Research Institute at friedlan@vtc.vt.edu.

For additional information please visit: http://research.vtc.vt.edu/ and http://research.vtc.vt.edu/employees/michael-j-friedlander/

Virginia Tech has a strong commitment to the principle of diversity and, in that spirit, seeks a broad spectrum of candidates including women, minorities, and people with disabilities.

FOCUS ON NEUROSCIENCE

Faculty Position in Systems Neuroscience
Department of Physiology
Northwestern University Feinberg School of Medicine

A tenure-track position is open for a full-time faculty researcher (PhD, MD/PhD or MD) in systems neuroscience. Applicants should have an outstanding record of research in systems neuroscience that adds to existing departmental strengths in sensorimotor integration, pain perception, and learning and memory. Individuals using animal models and innovative experimental techniques including multi-electrode recordings or optical imaging, as well as advanced computational methods are particularly encouraged to apply, but the scientific excellence of the candidate is more important than the particular area of research. Rank is open. All applicants should have substantial peer-reviewed publications that demonstrate research productivity and the ability to perform cutting edge research. Candidates for an Assistant Professor position should have postdoctoral research experience. Candidates seeking appointment at the Associate Professor or Full Professor level should have substantial research productivity and a history of grant support and academic service. The successful applicant will also have the opportunity to participate in graduate and medical education. Starting date is negotiable. Applicants should send (single PDF) a cover letter, curriculum vitae, a two-page description of research accomplishments and plans, and the name and contact information for three references by e-mail to neuromSciencEnorthwestern.edu.

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.

POSITIONS OPEN

Director of Basic Sciences
Temasek Life Sciences Laboratory, Singapore

Temasek Life Sciences Laboratory (TLL) invites applications for appointment as Director of Basic Sciences. Temasek Life Sciences Laboratory is a non-profit research Institute located on the Campus of the National University of Singapore (www.tll.org.sg). Temasek Life Sciences Laboratory is affiliated to the National University of Singapore and Nanyang Technological University and enjoys close links with other research organizations based in Singapore and elsewhere. Research in Temasek Life Sciences Laboratory falls into two broad categories - Basic Sciences and Strategic Research. Research work within Basic Sciences has strengths in Cell Biology, Developmental Biology, Molecular Pathogenesis, Genomics, and Structural Biology and uses a variety of bacterial, fungal, plant and animal models. The Temasek Life Sciences Laboratory has excellent infrastructure and facilities for research.

The Director of Basic Sciences will report to the Executive Director and work closely with the other members of the TLL Management team. The candidate will oversee the Basic Sciences Research Program to maintain high standards and international visibility. The candidate will also coordinate the recruitment and assessment of basic sciences principal investigators. The candidate will be expected to forge new research initiatives with local and international research organizations.

The candidate should be an outstanding scholar who will be able to provide strong leadership in research and training. The candidate should have a proven track record and an international recognition in research in any area of research represented at the Temasek Life Sciences Laboratory. Administrative experience would be an added advantage. Research support and laboratory facilities are available. Remuneration will be commensurate with the candidate’s qualifications and experience. Interested parties should submit their applications, supported by a detailed resume and names of at least six referees to:

Prof. Chan Soh Ha, Executive Director
Temasek Life Sciences Laboratory,
The National University of Singapore,1 Research Link,
Singapore 117604
chansh@tll.org.sg

(Closing date for application: 31 January 2012)
TENURE-TRACK FACULTY POSITION
DEPARTMENT OF BIOCHEMISTRY
THE UNIVERSITY OF WISCONSIN

The Department of Biochemistry invites applications for a tenure-track position at the Assistant or Associate Professor level. We are seeking individuals to establish internationally leading programs that bring approaches complementing our existing strengths in three broad areas. These include: genome stability (DNA damage and repair, aging and cancer, telomere biology and maintenance, and cell cycle control); cellular responses to stress (gene expression, signal transduction and ER stress); mitochondrial physiology (apoptosis, metabolism and cancer). There are opportunities for extensive collaborations within the Department of Biochemistry, the Robert W. and Helen K. Noyes Laboratory for Biomedical Research, and the Medical College of Wisconsin as well as opportunities for participation in related graduate programs.

Successful candidates will be expected to run a vibrant collaborative program supported by external funding. A competitive salary and research start-up package will be provided. The University of Pittsburgh School of Medicine is consistently among the top ten in NIH-funded medical schools in the U.S. and is located in one of America’s most livable cities.

Positions will be coordinated with Departments in the University of Pittsburgh and are tenured. To apply, please send your curriculum vitae, a one-page summary of your research plans, and three letters of recommendation to: Bennett Van Houten, PhD, UPCI Research Pavilion, Hillman Cancer Center Suite 2.6, 5117 Centre Avenue, Pittsburgh, PA 15213-1863, e-mail: derussoj@upmc.edu. Applications will be reviewed and evaluated upon receipt of full applications on an ongoing basis.

The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer.

The University of Pittsburgh Cancer Institute (UPCI) (www.upci.upmc.edu) at the University of Pittsburgh has a strong program in molecular and cellular cancer biology (www.upci.upmc.edu/mccbp) and seeks to recruit faculty at the Assistant Professor level to develop outstanding research programs that bring approaches complementing our existing strengths in three broad areas. These include: genome stability (DNA damage and repair, aging and cancer, telomere biology and maintenance, and cell cycle control); cellular responses to stress (gene expression, signal transduction and ER stress); mitochondrial physiology (apoptosis, metabolism and cancer). There are opportunities for extensive collaborations within the University of Pittsburgh Medical Center and Carnegie Mellon University, as well as opportunities for participation in related graduate programs.

We seek candidates who will establish competitive research programs in the fields of DNA repair and chromatin/nuclear structure, DNA replication, protein trafficking, signal transduction or transcription. We would particularly welcome applications from individuals who use state-of-the-art biochemical, imaging and molecular biology tools working in an array of biological systems that can translate bench science to clinical cancer applications. Candidates with a track record of independent funding and publications in high impact journals will be given the highest consideration.

Successful candidates will be expected to run a vibrant collaborative program supported by external funding. A competitive salary and research start-up package will be provided. The University of Pittsburgh School of Medicine is consistently among the top ten in NIH-funded medical schools in the U.S. and is located in one of America’s most livable cities.

Positions will be coordinated with Departments in the University of Pittsburgh and are tenure track. To apply, please send your curriculum vitae, a one-page summary of your research plans, and three letters of recommendation to: Bennett Van Houten, PhD, UPCI Research Pavilion, Hillman Cancer Center Suite 2.6, 5117 Centre Avenue, Pittsburgh, PA 15213-1863, e-mail: derussoj@upmc.edu. Applications will be reviewed and evaluated upon receipt of full applications on an ongoing basis.

The University of Pittsburgh is an Affirmative Action, Equal Opportunity Employer.

The University of Michigan seeks nominations and applications for the next Director of the Michigan Memorial Phoenix Energy Institute. The Institute develops, coordinates, and promotes multidisciplinary energy research and education at U-M and works to promote a secure, affordable, and sustainable energy future.

The University of Michigan is home to nineteen schools and colleges offering top-ranked academic programs and diverse cultural and social opportunities in a stimulating, intellectual environment. The strength of these programs places the Energy Institute in a unique position to solve energy-related technological problems in tandem with policy, business, and societal challenges. The Institute coordinates and facilitates energy-related research and education that combine public policy, economics, and social science with physical science and engineering. Synergistic organizations at U-M include the Graham Environmental Sustainability Institute, the Erb Institute for Global Sustainable Enterprise, the Center for Sustainable Systems, the University of Michigan Transportation Research Institute, and the Center for the Study of Complex Systems. Details regarding the Institute’s programs can be found at www.mmpei.umich.edu.

Reporting to the Vice President for Research, the Energy Institute Director is expected to be a leading expert in an energy-related field of science (physical, biological, or social), technology, and/or public policy, with qualifications appropriate for a tenured faculty appointment at the University as a full professor. The Director will catalyze energy-related research, teaching, and outreach activities among the faculty and provide leadership across the University. The Director will help to set the strategic goals for the energy-related research and teaching activities and to drive the development of institutional priorities with respect to resource allocation and faculty recruitment/development. Finally, the Director will serve as the public face of the University of Michigan’s energy-related activities and champion the development of external resources for the Institute. The successful candidate will possess outstanding skills of leadership, collaboration, and organization-building.

The University has retained Isaacson, Miller to assist in the search. Nominations and letters of application, including curriculum vitae should be sent to: Vivian Brocard, Vice President, Isaacson, Miller, 263 Summer Street, Boston, MA 02210, http://www.imsearch.com Email: 4391@imsearch.com. Electronic submissions preferred.

The University of Michigan is an Affirmative Action/Equal Opportunity Employer. Individuals from traditionally underrepresented groups are especially encouraged to apply.
Your assignment – grand challenges in research

KTH Royal Institute of Technology has research activities in six strategic areas, thereby deepening our impact on the world’s great challenges. We are now looking for international calibre research talent to join us, and help us create a brighter tomorrow.

Our strategic research areas are:
• Information and communication technology
• e-Science
• Transportation
• Energy
• Molecular biosciences
• Production engineering

Please visit www.kth.se/sra for more information about the available positions, our research and KTH.

KTH, founded in 1827, is Sweden’s leading technical university. We account for one-third of Sweden’s technical research and engineering education capacity at a university level. Education and research cover a broad spectrum – from the natural sciences through all the branches of engineering, as well as architecture, industrial engineering and management, urban planning, work science and environmental engineering.

IST AUSTRIA IS LOOKING FOR

Professors and Assistant Professors

IST Austria (Institute of Science and Technology Austria) invites applications for Professors and Assistant Professors in all fields of the natural and mathematical sciences and related disciplines. Outstanding scientists in physics, chemistry, and mathematics are especially encouraged to apply.

The Institute, which is situated on the outskirts of Vienna, was established by the Austrian government with a focus on basic research. The campus opened in 2009 and is expected to grow to 45 research groups and over 500 employees by 2016. IST Austria is entitled to award PhD degrees and includes an English-language graduate school. It aims to achieve an international mix of scientists and chooses them solely on the basis of their individual excellence and potential contribution to research.

The Institute recruits tenured and tenure-track leaders of independent research groups. The successful candidates will receive a substantial annual research budget but are expected to also apply for external research grants.

For further information and access to the online application material, please consult:
www.ist.ac.at/professor-applications
Deadline for receiving Assistant Professor applications: January 15, 2012

IST Austria values diversity and is committed to equality. Female researchers are encouraged to apply.
The MAX DELBRÜCK CENTER FOR MOLECULAR MEDICINE (MDC) BERLIN-BUCH and the CHARITÉ – UNIVERSITÄTSMEDIZIN BERLIN (CHARITÉ) invite applications for the following position:

Full University Professorship of Experimental Cardiovascular Research

Salary Group W3 BBesG (Code number: Prof. 388/2011)

The MDC is committed to expanding its impact in the field of Experimental Cardiovascular Research and is seeking applications from outstanding individuals with international reputation in relevant areas of research including genetics, genomics, (patho)physiology of the heart, vascular biology or metabolic diseases. Successful candidates will conduct visionary independent research, obtain extramural funding and engage in collaborative projects with groups at the MDC. They will also integrate with and substantially contribute to Cardio Berlin, an institutionalized cooperation of the MDC, the CHARITÉ, and the Deutsches Herzzentrum Berlin with focus on the prevention of all stages of the cardiovascular continuum.

The successful applicant will be scientific member of the MDC Berlin-Buch and of the Medical Faculty of the CHARITÉ. The position is affiliated with the MDC Berlin-Buch.

Qualifications: Junior Professorship or postdoctoral thesis (Habilitation) or equivalent scientific achievements and teaching qualifications (as per § 100 Berlin Higher Education Act - BerHG).

The MDC Berlin-Buch and the CHARITÉ are equal opportunity employers. The applications of women are explicitly encouraged.

For further information about the MDC Berlin-Buch and the CHARITÉ please visit our web sites http://www.mdc-berlin.de or http://www.charite.de. For enquiries about the position please contact Thomas Willnow (willnow@mdc-berlin.de).

Applications should be sent by December 16, 2011 including a curriculum vitae, list of publications, an outline of present and planned research and other relevant material (see: http://www.charite.de/en/charite/organization/careers/employment_market/internship/)

either to

Prof. Dr. Annette Grüters-Kieslich
Dean
Charité – Universitätsmedizin Berlin
10098 Berlin (Germany)

or to

Prof. Dr. Walter Rosenthal
Scientific Director
Max Delbrück Center for Molecular Medicine (MDC) Berlin-Buch
13092 Berlin (Germany)

The MDC Berlin-Buch is a member of the Helmholtz Association of National Research Centers, supported by the Federal Government of Germany and the Land Berlin. The CHARITÉ is the Medical School of the Humboldt-Universität zu Berlin and the Freie Universität Berlin.

For electronic applications please use the e-mail: jobs@mdc-berlin.de and professur-bewerbung@charite.de.

Please send your application as one file, pdf-format, maximum size 1 Mb.

The Department of Biological Sciences, College of Sciences, Old Dominion University, invites applications for several tenure-track/tenured Faculty positions (beginning July 2012) at the Assistant Professor, Associate Professor, or Professor level as part of a major recruitment initiative. We are particularly interested in: (1) investigators in host-pathogen interactions and molecular pathogenesis; (2) molecular or cellular immunologists employing contemporary molecular biology approaches. A successful candidate must establish and maintain a vigorous research program that will attract peer-reviewed funding, and provide excellent education to our graduate and undergraduate students. All applicants must have a Ph.D., M.D. or an equivalent degree in an appropriate field. Applicants at the Associate Professor or Professor level must demonstrate substantial research accomplishments, a consistent record of independent peer-reviewed funding, and have active competitive grants. Interactions are encouraged with other departments/units of the College and the University, as well as the Eastern Virginia Medical School. A cross-appointment with the Center for Moleculare Medicine (Chris D. Platsoucas, Ph.D., Center Director) is available. State salary support and competitive start-up packages are available. The Department of Biological Sciences receives substantial support from state funds, as well as from research grants from the federal and other granting agencies. The department has strong Ph.D. and M.S. graduate programs that currently enroll over 125 students. The College of Sciences is undergoing a major research expansion. Over the last three years research grant awards to the College have increased by 78% to $20.6 million in FY2010. Old Dominion University (www.odu.edu) is a state supported, Carnegie doctoral research extensive institution enrolling more than 24,000 students including 6,000 graduate students.

Interested individuals should submit curriculum vitae, a statement of research achievements and research plans, and the names, addresses, e-mail addresses and phone numbers of three references to Wayne Hyes, Ph.D., Professor and Chairman, Department of Biological Sciences, Old Dominion University at MICB@odu.edu. Review of applicants will begin immediately and continue until the positions are filled.

Old Dominion University is an affirmative action, equal opportunity institution and requires compliance with the Immigration Reform and Control Act of 1986.

The University of Georgia invites applications for a full time, tenure track Assistant Professor position in the areas of microbial physiology and/or microbial ecology. The successful candidate will be expected to establish a nationally recognized research program involving the role of microorganisms in complex environments, in biogeochemically important processes, and/or in biotechnological applications. Topics of interest include microbial diversity, energy-generating pathways, symbioses, bioprocessing and bioremediation, extremophiles, and the molecular basis of unusual lifestyles or physiology. Applicants should have a Ph.D. in Microbiology, Biotechnology, Ecology or a related discipline and at least two years of postdoctoral research experience. Successful applicants will be expected to establish a vigorous externally-funded research program and to instruct and mentor undergraduate and graduate students.

To apply, the following should be submitted at: http://recruitment.franklin.uga.edu (1) a single PDF containing cover letter, curriculum vitae, and 1-2 page statements of research interests and teaching philosophy; (2) a single PDF containing reprints of three research papers; and (3) three letters of recommendation submitted directly by the references. For questions, please contact Nancy Perkins at micro@uga.edu or 706-542-2677. The University of Georgia is located 70 miles northeast of Atlanta in Athens, Georgia. Founded in 1785, the University of Georgia is the nation’s first state-chartered university. More information on Athens, Georgia can be found at: http://www.visitathensga.com/. To learn more about the Department of Microbiology and the University of Georgia, visit our website at www.uga.edu/mib. Review of applications will begin January 15, 2012, and the search will remain open until the position is filled. The start date for the position is August 13, 2012. The Department of Microbiology of the Franklin College of Arts and Sciences and the University of Georgia are committed to increasing the diversity of faculty and students and sustaining a work and learning environment that is inclusive.

Women, minorities and people with disabilities are encouraged to apply. The University of Georgia is an EEO/AA Institution.
Applications will be considered from candidates and molecular biomedical research. Areas of particular research interests in any areas relevant to discovery include chemical biology and drug discovery, structural biology of membrane proteins, signaling, metabolomics, proteomics and systems biology. We offer highly competitive start-up packages and salaries, outstanding research facilities, including many specialized cores and centers, as well as an unusually large and interactive research community within the Texas Medical Center and nearby institutions of the Gulf Coast Consortium. An endowed chair may be available for an appropriately qualified candidate.

For best consideration, apply by December 31, 2011.

For details on SESYNC programs and careers please see www.SESYNC.org.
Department of Physics and Astronomy
Experimental/Theoretical Biomedical/ Biophysics
Tenure-Track Faculty Position

The Department of Physics and Astronomy at Wayne State University invites applications for a faculty appointment, subject to administrative approval, in the area of experimental or theoretical biomedical/biophysics. We are seeking individuals with exceptional promise for a tenure-track assistant professor position beginning in the Fall 2012 semester. Senior appointments may be considered for highly qualified applicants. We are particularly looking for researchers who can collaborate in or supplant ongoing research activities in the department. Active departmental research in biomedical/biophysics includes: Fluorescence tracking of single molecular motors, Raman spectroscopy of biological tissues, single molecule force measurements, fluorescence correlation spectroscopy, nanoparticle synthesis for drug delivery and cancer treatments, and nonlinear dynamics of cell injury. The department also has strong research programs in condensed matter physics, atomic physics, high-energy particle physics, astrophysics, and relativistic heavy ions physics. In addition, there are opportunities for collaborating with researchers in other areas of the university, including the nationally recognized medical school. The successful applicant is expected to become an effective teacher at both the physics undergraduate and graduate levels, to supervise M.S./Ph.D. dissertations, to lead an internationally competitive, fundable research program in biomedical/biophysics, and to take an active role in the undergraduate biomedical physics program.

All applicants should send a curriculum vitae and a detailed statement of research interests through the Academic Application on the WSU Online Hiring System at jobs.wayne.edu (Posting #038155). More information about the application process, including on-line application instructions and position number, is available on the Department website at http://www.physics.wayne.edu. Applicants should also arrange to have at least three letters of reference sent by December 15, 2011 either through email or by regular mail to: Peter Hoffmann, Chair, Physics Search Committee, Department of Physics and Astronomy, 666 W. Hancock, Wayne State University Detroit, MI 48201 [Email address: BMPSearch@physics.wayne.edu]. We will begin reviewing applications December 15, 2011.

Wayne State is an Affirmative Action/Equal Opportunity Employer: Women and members of minority groups are encouraged to apply.

Two Professors in Medical Image Analysis

Two full time positions are available, both placed at the Research and development platform MedTech West. Administratively placed at Chalmers University of Technology and University of Gothenburg. The duties of the positions include research, teaching and supervision.

For further information about the positions and how to apply, please visit Vacancies at www.chalmers.se

The Region Västra Götaland, Sweden, has initiated the Regional Imaging and Intervention Centre, to be opened in 2015 at Sahlgrenska University Hospital, Gothenburg. The advertised positions should be viewed in this context as a centre of this kind depends on advanced and cutting edge imaging technologies and techniques.

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Professor of Genetics
Harvard Medical School

Program in Cellular and Molecular Medicine
Children’s Hospital Boston
Immune Disease Institute

The Immune Disease Institute and the Program in Cellular and Molecular Medicine (ID/PCMM) and the Department of Medicine at Children's Hospital Boston in partnership with the Department of Genetics at Harvard Medical School (HMS) are recruiting an outstanding genetics researcher to fill a tenured position at the rank of Professor of Genetics. The candidate should be performing cutting edge research in genetics and/or genomics, broadly defined, including, but not limited to, research in transcriptional or post-transcriptional gene regulation, epigenetics, cellular differentiation, organ system development, or stem cell biology. We are especially interested in candidates who use or have developed cutting edge technologies and/or use the immune system as a model for their research.

The ID/PCMM is a nonprofit research institute directed by Frederick W. Alt that is recognized worldwide for its discoveries that increase the body’s ability to fight disease. Our laboratories focus on research in immunology, inflammation, cell biology, vascular biology, infectious diseases and cancer. For more information about our website (www.idi.harvard.edu). Our program is highly interactive and offers outstanding opportunities for collaboration and technical support. The ID/PCMM has strong core facilities for flow cytometry, state of the art imaging, and access to outstanding core facilities for high throughput screening, sequencing, and mouse genetics. The successful candidate will direct a laboratory in the Warren Alpert Building in the heart of the HMS quadrangle on Longwood Avenue.

Please forward a cover letter, curriculum vitae, repeats of key publications, letters separately sent from three referees, and a 2-page statement including previous contributions and future research plans by December 1, 2011 to:

Judy Lieberman, Search Chair
200 Longwood Avenue, WAB 255
Boston, MA 02115
lieberman@idi.harvard.edu

The Immune Disease Institute, Children’s Hospital Boston and Harvard Medical School are affirmative action/equal opportunity employers. Women and minority candidates are strongly encouraged to apply.

Immune Disease Institute

Director, Center for Immunology

The Director will lead the new Center for Immunology with responsibility to expand the existing Immunology research program in the Department of Pathology and lead interdepartmental research and education programs in Immunology. A substantial start-up package will be provided for the Director’s laboratory, and the Director will have responsibility to lead recruitment of 3-4 additional faculty positions supported by start-up packages.

The current Immunology program’s strengths include fundamental immunology (innate immunity, signaling, MHC molecules, APCs, T cell biology), immunology of infectious diseases (particularly tuberculosis and HIV), autoimmunity (e.g. IBD) and other topics. Annual research funding in areas related to infectious disease immunology, pathogenesis and biology exceeds $100M at CWRU and affiliated institutions. Research training is focused on the Immunology Training Program (http://www.case.edu/med/pathology/training/itp.html).

Candidates should be established scientists with international stature and successful and rigorous research programs. Leadership experience and a successful track record as a scientific mentor are desired. Appointment as Professor with tenure is anticipated.

Please send a cover letter, CV, and contact information for three references to Clifford V. Harding, Chair, Department of Pathology, c/o Denise Davis (dmd10@case.edu).

In employment and education, CWRU is committed to equal opportunity and diversity. Women, veterans, members of underrepresented minority groups, and individuals with disabilities are encouraged to apply. Accommodations for application and hiring are described at http://www.case.edu/diversity/faculty/writinganad.html.
POSITION: The National Eye Institute (NEI), a major component of the National Institutes of Health (NIH) and the Department of Health and Human Services (DHHS), is seeking exceptional candidates for the position of Associate Director for International Programs. The NEI is responsible for a national and international program to conduct and support research, training, health information dissemination, and other programs with respect to blinding eye diseases, visual disorders, mechanisms of visual function, preservation of sight, and the special health problems and requirements of individuals who are visually impaired.

The incumbent reports directly to the Director, NEI and is the chief technical and policy advisor on global vision health and international programs. The Associate Director will conduct planning, management, and evaluation of the international cooperative research activities in vision disorders and will (1) serve as the NEI focal point with the Fogarty International Center and the State Department, and other Federal organizations involved in international health activities; (2) coordinate vision research activities under bilateral agreements between the United States and other countries; and manage international contracts and budgets; (3) maintain liaison with international organizations involved in the prevention of blindness and vision disorders; (4) plan and implement programs for international exchange of scientists; (5) assume a leadership role in fostering communications between the NEI researchers and the international scientific community; and (6) travel to national and international meetings, workshops, and other forums to foster global vision research. The position includes opportunities for the pursuit of specific international agendas and collaborations with global vision health and research partners. Applicants should be known and respected within their profession, both nationally and internationally.

QUALIFICATIONS REQUIRED: Applicants must possess a degree in an academic field related to the health sciences or allied sciences appropriate to the work of the position. Experience in academic, professional society, and/or industry settings is important for the level of liaison and collaboration required with constituents from sectors such as ophthalmic and optometric health service organizations, government agencies, and international research groups.

SALARY AND BENEFITS: GS-15 salary range is $123,758 - $155,500. Full Federal benefits are available including leave, health and life insurance, long-term care insurance, retirement, and retirement savings plan (401K equivalent).

HOW TO APPLY: Interested candidates may apply at www.usajobs.com to vacancy announcement NIH-NEI-DE-12-499213, beginning 11/28/2011. Applications must be received by midnight December 27, 2011. For questions, contact Thomascene White, Human Resources Specialist, Office of Human Resources at whitet1@mail.nih.gov.

The NIH encourages the application and nomination of qualified women, minorities, and individuals with disabilities. DHHS, NIH and NEI ARE EQUAL OPPORTUNITY EMPLOYERS.

Tenured Positions at the University of Campinas

The University of Campinas (UNICAMP), one of the leading research universities in Brazil and South America, is seeking highly qualified faculties for tenured positions to carry out teaching and research in Bioenergy. The Bioenergy Laboratory at UNICAMP will offer lab and office space for research in basic and applied science. Also, FAPEP, a leading science and technology funding agency in Brazil, has created a specific program for funding proposals in this area of research.

Applicants should be PhDs with high academic achievements and are expected to carry out teaching and research activities in one of the following areas:

- Sensors development for application in agriculture
- Photosynthesis – biomolecules or biomimetic structures
- Plant productivity and photosynthesis
- Process engineering related to the utilization of microorganisms for bioenergy production
- Sustainability in bioenergy production

The annual starting salary of a tenured faculty at UNICAMP is approximately R$ 109,200 (around US$ 65,900). In case of interest, please send your CV (English or Portuguese) to: carreiras@reitoria.unicamp.br (Subject: Bioenergy + area of interest]. Applicants whose CVs best suit the positions requirements will be invited to participate in an open selection examination. For further information, please contact: info.carreiras@reitoria.unicamp.br

Department of Health and Human Services
National Institutes of Health
National Institute of Neurological Disorders and Stroke

Title: Associate Director for International Programs

Facility Manager

Protein/Peptide Sequencing Facility

The Division of Intramural Research of the National Institute of Neurological Disorders and Stroke (NINDS) of the NIH in Bethesda, MD is searching for outstanding applicants for a Facility Manager for its Protein/Peptide Sequencing Facility. The successful incumbent will oversee a mix of service-based and project-based activities while developing new collaborations both in biophysical protein analysis and proteomics. Though this is primarily a service facility, there are ample opportunities for collaboration and activities to explore and extend the facility’s work in new directions. The successful candidate will work closely with leadership in NINDS to make recommendations for improvement of resources for protein analysis and proteomics to serve the NINDS and NIH neuroscience communities, with the possibility of hiring further support staff in the future if needed. Opportunities for developing training curricula or new courses are available. Presently the facility is equipped with the following: Thermo LTQ ion trap LC/MS, AB/SCIEX MALDI TOF/TOF MS, Waters Q-TOF Micro LC/MS, Agilent Model 1100 HPLC, ABI Protein Sequencer, and a Digilab In-Gel Digestion Robot. Approximately 10-15 different groups within NINDS and the broader NIH neuroscience community make use of the facility. Based on current usage, the primary requirement for the position is skill in analysis of purified proteins and complexes, with a smaller component of proteomics.

This is a Staff Scientist position effective early 2012. A Ph.D. in Chemistry or Biological Sciences with an emphasis in biological protein analysis using mass spectrometry, and two or more years of postdoctoral experience are required. The salary is commensurate with experience. Applicants should send a cover letter describing qualifications and career plans, a curriculum vitae with bibliography, and a single page document describing his/her “Philosophy of Core Facility Management”, and have three letters of reference sent to: Peggy Rollins, Office of the Scientific Director, Division of Intramural Research, NINDS, NIH, Building 35 Room GA908, Bethesda, MD 20892 or Peggy.Rollins@ninds.nih.gov. Review of applications will begin on November 30, 2011, but applications will be received until the position is filled.

HHS and NIH are Equal Opportunity Employers.
NYU Abu Dhabi is currently inviting applications for two positions (open rank, tenure or tenure-track) for appointments as faculty in its Division of Science and Mathematics. We encourage applications from candidates who have research interests in neurobiology or molecular and cellular biology. Candidates will be expected to have or develop active research programs and to participate in the division’s teaching activities at the undergraduate level.

New York University (NYU) has established itself as a Global Network University, a multi-site, organically connected network encompassing key global cities and idea capitals. The network has three foundational, degree-granting campuses: New York, Abu Dhabi and Shanghai, complemented by a network of over fifteen research and study-away sites across five continents. Faculty and students will circulate within this global network in pursuit of common research interests, the promotion of cross-cultural understanding and solutions for problems, both local and global.

Entering its second year, NYU Abu Dhabi has already recruited a cohort of faculty who are at once distinguished in their research and teaching. Our first two classes of students are drawn from around the world and surpass all traditional recruitment benchmarks, both US and global. NYU Abu Dhabi’s highly selective liberal arts enterprise is complemented by an institute for advanced research, sponsoring cutting-edge projects across the arts, humanities, social sciences, natural sciences and engineering.

The terms of employment are very competitive and include housing and educational subsidies for children. Faculty may also spend time at NYU New York and other sites of the global network, engaging in both research and teaching opportunities. The appointment might begin as soon as September 1, 2012, but candidates may elect to start as late as September 1, 2013.

Applications are due by November 30, 2011; applications received later will be reviewed until the positions are filled. We will consider senior candidates on a rolling basis. Candidates should submit a curriculum vitae, statements of research and teaching interests (not to exceed three pages each), no more than three representative publications and three letters of reference in PDF format to be considered. Please visit our website at http://nyuad.nyu.edu/human-resources/open-positions.html for instructions and other information on how to apply. If you have any questions, please e-mail nyuad.science@nyu.edu.

NYU Abu Dhabi is an Equal Opportunity/Affirmative Action Employer.

**FACULTY POSITIONS**
**Biology**
**NYU ABU DHABI**

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**Faculty Position in Cancer Research**

The Children’s Research Institute (CRI) at the University of Texas Southwestern Medical Center seeks applications for a tenure-track faculty position in Dallas, TX at the Instructor, Assistant Professor, or Professor level in the area of cancer biology. Outstanding investigators at any academic rank will be considered. Candidates must have a Ph.D., M.D. or equivalent degrees, a track record of outstanding research, and the ability to direct an independently-funded research program.

The UT Southwestern Medical Center has a distinguished history of excellence in disease-related basic science research. The CRI is a new institute dedicated to recruiting outstanding scientists dedicated to solving fundamental problems in human disease and to providing a dynamic, stimulating and highly collaborative scientific environment. Major areas of focus within the CRI will include stem cell biology and cancer in addition to metabolism.

Please submit a CV, a 2-page summary of past accomplishments and research plans, and ask three references to submit letters to Beth Morris at beth.morris@utsouthwestern.edu.

CRI is a collaborative venture with Children’s Medical Center of Dallas

UT Southwestern is an Equal Opportunity/Affirmative Action Employer.

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**Faculty Position in Metabolism Research**

The Children’s Research Institute (CRI) at the University of Texas Southwestern Medical Center seeks applications for a tenure-track faculty position in Dallas, TX at the Instructor, Assistant Professor, or Professor level in the area of metabolism and disease. Outstanding investigators at any academic rank will be considered. Candidates must have a Ph.D., M.D. or equivalent degrees, a track record of outstanding research, and the ability to direct an independently-funded research program. Areas of specific interest for this position include metabolomics, metabolic flux analysis, mitochondrial biology and other areas of metabolism relevant to human health and development. In addition to analytical equipment dedicated to the investigator’s studies, CRI members will also have access to a metabolomics core housing instrumentation for ultra-high pressure liquid chromatography, triple-quadrupole mass spectrometry and gas chromatography/mass spectrometry. NMR spectroscopy, 13C dynamic nuclear polarization, a human 7-Tesla MRI and a state-of-the-art mouse metabolic phenotyping facility are also available on campus to provide an unparalleled breadth of metabolic analysis.

The UT-Southwestern Medical Center has a distinguished history of excellence in disease-related basic science research. The CRI is a new institute dedicated to recruiting outstanding scientists dedicated to solving fundamental problems in human disease and to providing a dynamic, stimulating and highly collaborative scientific environment. Major areas of focus within the CRI will include stem cell biology and cancer in addition to metabolism.

Please submit a CV, a 2-page summary of past accomplishments and research plans, and ask three references to submit letters to Beth Morris at beth.morris@utsouthwestern.edu.

CRI is a collaborative venture with Children’s Medical Center of Dallas

UT Southwestern is an Equal Opportunity/Affirmative Action Employer.
Donald Hedberg Distinguished Professor of Entrepreneurial Studies in the Natural Sciences

Carthage College seeks an experienced and accomplished candidate to become the next Donald Hedberg Distinguished Professor of Entrepreneurial Studies in the Natural Sciences and to lead the Entrepreneurship in the Natural Sciences Program (Science Works). Founded in 1994, the Science Works program has propelled hundreds of Carthage undergraduates beyond traditional post-graduate options and into areas that are entrepreneurial or innovative in nature.

The Hedberg Chair oversees the Science Works Program, which includes the minor in Entrepreneurial Studies in the Natural Sciences. The successful candidate will engage in teaching and mentoring of undergraduate students in research and the development of technical business plans. The Hedberg Chair is expected to strengthen the program by seeking extramural funding and partnerships across the Milwaukee-Chicago corridor. The Chair will work collaboratively with departments throughout the College to expand entrepreneurship opportunities for Carthage students.

The Chair is housed in the Natural Science Division of the College and works with a faculty that has a long history of collaboration and interdisciplinary work.

The College welcomes applications from scholars and professionals with a history of successful innovation and leadership in a technical field. The successful candidate should hold a Ph.D. at the time of appointment, but candidates with a significant combination of academic and professional accomplishment will be considered.

Carthage was founded in 1847 and is a private college of the liberal arts and sciences affiliated with the ELCA Lutheran Church with approximately 2,500 full-time and 720 part-time students. The College awards degrees in more than 40 subject areas and works with a faculty that has a long history of collaboration and interdisciplinary work.

The College welcomes applications from scholars and professionals with a history of successful innovation and leadership in a technical field. The successful candidate should hold a Ph.D. at the time of appointment, but candidates with a significant combination of academic and professional accomplishment will be considered.

Carthage was founded in 1847 and is a private college of the liberal arts and sciences affiliated with the ELCA Lutheran Church with approximately 2,500 full-time and 720 part-time students. The College awards degrees in more than 40 subject areas and works with a faculty that has a long history of collaboration and interdisciplinary work.

The search committee will begin the review of credentials and continue until the position is filled. For best consideration, candidates should submit a curriculum vitae and a letter of interest in the position outlining a teaching philosophy and a vision for technical entrepreneurship in the 21st Century by December 7, 2011. All application materials should be submitted as a single pdf document online through www.carthage.edu/careers.

Nominations, inquiries, or expressions of interests should be directed to (preferably electronically):

Julio C. Rivera, Jr.
Provost and Search Committee Chair
Carthage College
2001 Alford Park Drive
Kenosha, WI 53140

e-mail: hedberg-search@carthage.edu
voice: 262-551-5850
fax: 262-551-5843

U.S. Environmental Protection Agency
Office of Research and Development

HIGH-LEVEL CAREER OPPORTUNITIES

EPA’s Office of Research and Development (ORD) is seeking internationally recognized scientists/engineers to fill two positions in the National Risk Management Research Laboratory (NRMRL). One position is located in Ada, Oklahoma and one position is located in Cincinnati, Ohio. NRMRL’s leadership in science and engineering is recognized throughout EPA and the environmental community as the source of responsive, objective solutions to complex, multidisciplinary environmental problems. More information about NRMRL can be found at www.epa.gov/nrmrl/.

ORD plans to fill these positions using EPA’s Title 42 Authority, which offers up to 5-year renewable appointments at highly competitive, market-based salaries. The positions are part of a larger EPA effort to use state-of-the-science approaches and technologies in its mission of protecting human health and the environment. The ideal candidates will have a degree in a relevant field, extensive specialized experience and accomplishments, and an international reputation for technical excellence. Positions and major duties include:

RTP-ORD-42-2011-0003, Director, Ground Water and Ecosystems Restoration Division (Ada, Oklahoma). Interdisciplinary - Biologist, Engineer, Physical Scientist, Chemist

• Leading the nation’s only research program focused on groundwater protection and restoration. The high visibility science program currently encompasses studies of the relationship between groundwater resources and hydraulic fracturing for extraction of natural gas and carbon sequestration. The responsibilities include advocacy, management of a large and highly skilled staff and supervision of a state-of-the-art research facility. The goal of the program is to bring innovation to achieve sustainable solutions to complex environmental problems with a focus on groundwater resources.

RTP-ORD-42-2011-0004, Director, Water Supply and Water Resources Division (Cincinnati, Ohio). Interdisciplinary - Biologist, Engineer, Physical Scientist, Chemist

• Leading a research program focused primarily on protection of water resources and drinking water treatment. The mission of the Division is to achieve sustainable solutions to complex water issues facing the nation and the globe. Current research areas in the Division are associated with solving critical issues on sustainable water resources and include aging water infrastructure, adaptation to climate change, adoption of new treatment technologies and management of emerging microbial and chemical contaminants in drinking water and distribution systems.

Responsibilities for all positions include providing hands-on leadership of ORD’s research programs, serving as a senior spokesperson/representative, identifying collaborative opportunities with outside organizations, and playing a vital leadership role within NRMRL.

Salary and Benefits: Salary is up to $200,000 per annum, depending upon qualifications, experience, and other factors. The selected applicant will be eligible for full benefits including health and life insurance, retirement, vacation and sick leave.

For more information about the organization and the job announcements, including contacts for questions about the position, please refer to www.epa.gov/ORD/NRMRL/jobs/index.html.

The U.S. Environmental Protection Agency is an Equal Opportunity Employer.
The University of Colorado Boulder is seeking applications and nominations for the Jennie Smoly Caruthers Endowed Chair in Biochemistry or Molecular Biology. The scientist will hold the rank of Professor in the Department of Chemistry and Biochemistry or the Department of Molecular, Cellular and Developmental Biology. It is expected that the selected candidate will be an internationally recognized, outstanding scientist with a track record of well-funded research, broadly cited publications and will have demonstrated success in teaching, graduate training, and service to the academic community. 

The successful candidate will be located in research space that will be shared with other world-class scientists conducting multidisciplinary research in systems biology, biochemistry, bioorganic chemistry, computational biology, and biomedical engineering. It is expected that the individual occupying this endowed chair will conduct collaborative research with colleagues in order to solve complex biomedical problems, requiring the expertise from several disciplines. Applications are accepted electronically at https://jobs.colorado.edu/posting/814500. Applications must include a cover letter, a statement of current and future research interests, a curriculum vitae including previous and current funding, and letters from at least four references. Review of applications will begin on September 1, 2011. Applications will be accepted until the position is filled. 

The University of Colorado does not discriminate in any condition of employment on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status. Equal Employment Opportunity (EEO) shall apply to all terms, conditions, and privileges of employment, including hiring, probation, testing, training and development, promotion, transfer, compensation, benefits, educational assistance, discipline, termination, layoffs, social, cultural and recreational programs, and retirement. See www.colorado.edu/ArtsSciences/Jobs/ for full job description. The University of Colorado at Boulder is committed to diversity and equality in education and employment.

Endowed Chair Professorship in Biochemistry or the Department of Molecular, Cellular and Developmental Biology

Tenure-line Faculty Position in Computational and Systems Immunology

The Stanford Institute for Immunity, Transplantation and Infection invites applications for a tenure line faculty position at the level of Assistant Professor in the area of computational and systems immunology. The predominant criterion for appointment in the University Tenure Line is a major commitment to research and teaching. Candidates must have a doctoral degree and formal advanced training in Biomedical Informatics or Computer Science as well as a strong background in Immunology, and must have excellent teaching and communications skills. The search committee encourages applications from candidates who have research interests in computational analyses of immunology, especially using “systems” methods as they pertain to human data and diseases. The successful candidate will conduct a vigorous, independent research program that includes the development and application of bioinformatics and informatics solutions to immunological research, particularly as it relates to the human immune system and disease. Additionally, the candidate will be expected to advise graduate students and should possess creativity and strong interpersonal skills in order to work in a collaborative and diverse faculty.

Applications should send curriculum vitae, a brief statement of their research interests, and the names of three referees to:

Mark M. Davis, Ph.D., Director
Institute for Immunity, Transplantation and Infection
c/o Michele King, ITI Program Manager
bioinformatics-search@stanford.edu

We will begin reviewing applicants on December 15, 2011. Stanford University is an Equal Opportunity Employer and is committed to increasing the diversity of its faculty. It welcomes nominations of and applications from women and members of minority groups, as well as others who would bring additional dimensions to the University’s research, teaching and clinical missions.

Faculty Position – Structural Biology, Biochemistry and Biophysics
University of Connecticut - Storrs

The Department of Molecular and Cell Biology at the University of Connecticut invites applications for a 9-month ASSISTANT OR ASSOCIATE PROFESSOR TENURE TRACK position to complement and expand upon existing strengths in the areas of Structural Biology, Biochemistry and Biophysics, starting August 23, 2012 (Search #2012118). Rank will be commensurate with experience. The successful candidate will be expected to have or develop a productive, independent research program, teach at the undergraduate and graduate levels, and employ structural or biophysical approaches to address important biological problems.

Minimum qualifications include a Ph.D. in Biophysics, Biochemistry or a closely related field, postdoctoral experience and an outstanding record of research accomplishments in structural biology or biophysics. Equivalent foreign degrees are acceptable. Preferred qualifications include the ability to contribute through research, teaching, and/or public engagement to the diversity and excellence of the learning experience. This position is at the main campus in Storrs; however, incumbents may also work at the University of Connecticut’s regional campuses in Avery Point, Hartford, Stamford, Torrington, Waterbury and West Hartford. Applicants should login at http://www.jobs.uconn.edu to submit a CV and concise statements of research and teaching interests. In addition, applicants should arrange to have at least three letters of reference sent to sh3@uconn.edu as a PDF document on letterhead with signature. To ensure full consideration, applications should be received by December 15, 2011.

The University of Connecticut is an EEO/AA Employer.

Associate Professor/Professor
Cancer Biology
Eastern Virginia Medical School

The Leroy T. Canoles Jr. Cancer Research Center and the Department of Microbiology and Molecular Cell Biology invite applications for the position of Associate Professor/Professor. We seek outstanding candidates with demonstrated excellence in cancer research as evidenced through peer-reviewed publication and external funding. The LTCJCRC has existing strength in cancer translational research and capitalizes upon both clinical and basic science infrastructure. The center is located on the 4th floor of the new Education and Research Building providing modern laboratory space, state-of-the-art research resources and a centralized meeting and office footprint. Candidates with expertise in cancer biology, cancer metastasis, treatment, molecular signaling or biomarker discovery using either proteomics/genomics and/or animal models are sought. However, all outstanding candidates in cancer research are encouraged to apply. A competitive start-up package will be provided to the successful candidate with appointment to the Leroy T. Canoles Jr. Cancer Research Center and the Department of Microbiology and Molecular Cell Biology.

Interested individuals should send a complete curriculum vitae, a statement of current and future research interests, and the contact information for three references to: O. John Semmes, Ph.D., Director, Leroy T. Canoles Jr. Cancer Research Center, Eastern Virginia Medical School, ERB 425, 651 Colley Avenue, Norfolk, VA 23507 or via e-mail: conyrb@evms.edu. Review of applications will begin January 1, 2012, and will continue until the position is filled.

EVMS was founded by the community to improve the health of the community through teaching, discovering and caring. A collaborative culture at EVMS draws like-minded students, physicians and scientists from all over the country and encourages a multidisciplinary research approach with an emphasis on translational research.

EVMS is an Affirmative Action/Equal Opportunity Employer and Drug and Tobacco Free Work Place.
Science Scholarships and Fellowships

**UNCF/MERCK SCIENCE INITIATIVE**

The UNCF/Merck Science Initiative is an innovative approach that creates opportunities in the biological, chemical and engineering sciences for African American students throughout the country.

**UNDERGRADUATE**

Science Research Scholarship Awards
- Scholarships up to $25,000
- A paid summer internship at a Merck facility with stipend totaling more than $5,000
- Mentoring and networking opportunities
- Eligibility: College juniors, science or engineering majors, 3.3 GPA

**GRADUATE**

Science Research Dissertation Fellowships
- Fellowships up to $53,500
- Mentoring and networking opportunities
- Eligibility: Ph.D. or equivalent degree candidates engaged in dissertation research in the biological, chemical or engineering fields

**POSTDOCTORAL**

Science Research Fellowships
- Fellowships up to $92,000
- Mentoring and networking opportunities
- Eligibility: Ph.D. or equivalent degree recipients in the biological or chemical research fields

**PENNSTATE**

**Assistant/Associate/Full Professor/Endowed Chair Positions**

**Molecular Virology and Prokaryotic Systems Biology**

**Department of Biochemistry and Molecular Biology**

The department seeks to add highly qualified tenure-track or tenured faculty at any academic rank with demonstrated excellence in broad areas of molecular virology or systems biology of prokaryotes. These additions to our faculty represent the commitment of the Eberly College of Science and the Huck Institutes of the Life Sciences to expand collaborative research in infectious diseases, genomics, biofuels and the environment.

Molecular virology candidates are sought with expertise in broad areas including, but not limited to, mechanisms of viral replication, host responses to viral infection and viral antagonism of host responses. Investigators combining molecular approaches with cell-culture and animal models are encouraged to apply.

Prokaryotic systems biology candidates are sought with expertise in broad areas engaging the domains *Bacteria* or *Archaea* including infectious disease, biofuels, ecology and the environment. Candidates aspiring to combine genomics and bioinformatics with quantitative approaches towards understanding global metabolism and host or environmental interactions are encouraged to apply.

Successful candidates will have the opportunity to participate in several centers including Infectious Disease Dynamics, Molecular Immunology and Infectious Disease, Comparative Genomics and Bioinformatics, Astrobiology Research and the Institutes for Energy and the Environment. These positions feature outstanding research space in the recently completed, state-of-the-art, Millennium Science Complex, competitive start-up packages and access to university-subsidized research support facilities including genomics, DNA core, X-ray crystallography, high-throughput calorimetry, high-field NMR, proteomics mass spectrometry, electron and confocal microscopy, flow cytometry and fermentation (http://www.huck.psu.edu/).

The successful candidate will be expected to direct an innovative, well-funded research program, to contribute to the teaching mission of the department and to participate actively in service. Applications should be submitted as a single pdf document via e-mail to Traci Shimmel (tshimmel@psu.edu). Document should include curriculum vitae, description of research interests and teaching goals (2-3 pages). PLEASE REFERENCE JOB NUMBER 35399B. Review of applications will begin in December and continue until positions are filled.

Penn State is committed to Affirmative Action, Equal Opportunity and the diversity of its workforce.

**UMASS LOWELL**

**Tenure-Track Faculty Positions**

**Department of Chemistry**

The Department of Chemistry of the University of Massachusetts Lowell invites applications for two tenured or tenure-track faculty positions. The Department consists of 16 full-time faculty and offers BS, MS, and PhD degrees. Successful candidates will be expected to teach Chemistry at the undergraduate and graduate levels and develop/sustain active, high quality, externally funded and nationally and internationally recognized research programs. A PhD in chemistry or very closely related discipline is required; postdoctoral experience is preferred. Applicants at all ranks will be considered. However, preference may be given to those with a record of excellence in teaching, scholarship, and funded research. Applicants having expertise in the following areas are especially encouraged to apply.

1) **Analytical Chemistry**, with applications in areas such as sensor development, rapid screening methods, diagnostic testing, method development for testing the purity, stability and efficacy of new drugs related to pharmaceutical research and high throughput monitoring for pharmaceutical, homeland security and environmental applications.

2) **Biochemistry**, with research interests in biomolecule-drug interactions, metabolism, molecular basis of drug design, drug pharmacokinetics and pharmacodynamics, enzymatic pro-drug processing, biological therapeutics, nucleic acid-based drugs, establishing and validating biomarkers.

3) **Inorganic Chemistry**, with research that would fit into the Analytical, Biochemistry, Organic, or Polymer Science programs. Examples include chemical and biological sensing, mechanistic biochemistry, drug design/delivery, and inorganic polymers with energy storage/conversion/distribution applications.

4) **Polymer Science**, with expertise in synthesis and applications of polymeric biomaterials, such as polymers for controlled drug release, polymer-drug conjugates, polymers for medical devices and medical device coatings.

Review of applications will commence immediately and the search will continue until suitable candidates are found. For complete posting details, application deadlines, and to apply, please visit http://jobs.uml.edu. Only online applications will be accepted.

The University of Massachusetts is an Equal Opportunity/Affirmative Action Title IX, HIV, ADA 1990 employer.
Stanford University
Dean of the School of Medicine

Stanford University invites nominations and applications for the position of Dean of the School of Medicine, beginning with the 2012-2013 academic year. The Dean is responsible for the direction of the training, research, and clinical missions of the school. We seek individuals with outstanding scholarly and professional careers who have demonstrated potential for academic and administrative leadership and present a salient vision of unified excellence across the School of Medicine.

Located in close proximity to the six other schools in the University, and the adult, pediatric, and VA hospitals, the School of Medicine provides an educational environment that encourages intellectual freedom and unparalleled opportunities for cross-disciplinary research to solve major human health problems. Stanford School of Medicine offers a stimulating setting for students and faculty who are interested in developing a scholarly, investigative approach to problems in the practice, economics, and socio-political facets of medicine and creating new knowledge through basic science research. Accordingly, Stanford has designed its M.D., Ph.D., and Medical Scientist Training (M.D./Ph.D.) programs to achieve two goals: to develop in all medical students the capacity for leadership in the scientific practice of clinical medicine; and to provide all trainees with outstanding opportunities to prepare themselves for careers in basic, clinical, or the social aspects of medicine. Stanford’s basic science and clinical faculty, who are among the national leaders in their respective fields, create and support a culture of innovation and creativity that is essential for excellence in research, education and clinical care.

The Dean of the School of Medicine must have vision and leadership to sustain and enhance excellence in all parts of the school’s mission, including fostering innovative educational, entrepreneurial, and research interactions with Stanford’s other schools and partnering with hospital leadership for delivery of outstanding patient care. The Dean is responsible for administration of the School, participation in University governance and representing the School to outside constituencies. In addition, the Dean will represent the School of Medicine in working with the leadership of Stanford Hospital and Clinics and the Lucile Packard Children’s Hospital to establish clinical strategies and long-term goals.

Consideration of nominations and applications for the position of Dean of the School of Medicine will begin immediately. Please address inquiries, nominations, and applications by January 3, 2012 to:

deansear@stanford.edu

Stanford University is an Equal Opportunity, Affirmative Action Employer and actively works to ensure that the search identifies qualified candidates who are women and/or members of ethnic minorities. The University has a strong institutional commitment to the principle of diversity. AA/EOE.

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**FACULTY POSITION**

**CRYO-ELECTRON MICROSCOPY**

**VANDERBILT UNIVERSITY**

The Department of Molecular Physiology and Biophysics and the Center for Structural Biology at Vanderbilt University invite applications for a tenure-track/tenured appointment in the area of biophysics/structural biology with an emphasis on cryo-electron microscopy approaches. Appointment is possible at the Full, Associate or Assistant Professor level. Applicants must have a Ph.D. and/or M.D. degree, and an outstanding record of research achievement that demonstrates the potential or ability to direct a world-class independent research program. The appointee will find a rich multi-disciplinary research environment and opportunities for close collaborations within the School of Medicine, the School of Engineering, and the College of Arts & Science. Vanderbilt University is located in Nashville Tennessee, a cosmopolitan city rich in cultural activities.

Please send a curriculum vitae, statement of research and teaching interests, and three letters of recommendation to: Hassane Mechourab, Ph.D., Chair, Search Committee, e-mail: mphfaculty.search@vanderbilt.edu. Review of applications will begin in December 2011 and continue until the position is filled.

Vanderbilt University is an Equal Employment Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply.

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**TRANSLATIONAL BIOMEDICAL RESEARCH OPPORTUNITY**

**Genomic Medicine/Bioinformatics**

Sigfried and Janet Weis Center for Research is seeking outstanding independent scientists for full-time research positions at ranks equivalent to Assistant, Associate or Full Professor in the areas of Genomics and Bioinformatics. The Weis Center is a basic and translational research facility of Geisinger Clinic located at Geisinger Medical Center (GMC) in Danville, PA. Genomic Medicine is a strategic focus for translational research at Geisinger.

Genomic Medicine is a strategic focus for translational research at Geisinger.

About the position:

- Expertise in laboratory, computational, or statistical genetic approaches
- Expand ongoing research on the genetic basis of disease
- Proven records of innovative research with relevance to human disease
- Collegiate environment with collaborative research opportunities

Geisinger Health System’s advanced electronic medical record system and health information technology infrastructure allows for electronic capture of clinical data and large biorepository of patient specimens.

Technical resources include instrumentation for confocal, TIRF and single cell fluorescence imaging, microarray analysis, genotyping, DNA sequencing, and flow cytometry, and an AAALAC-accredited animal facility. Substantial resources are available for start-up, ongoing research support and salary.

Qualified individuals should submit curriculum vitae, statement of research interests and three reference letters to Mr. Kristin Gaul, Weis Center for Research, Geisinger Clinic, via email (kgaul@geisinger.edu). Please refer to position WCR-3638 in the subject line. Applications will be accepted until the positions are filled.

For more information on research programs at Geisinger visit our website at http://www.geisinger.org/professionals/research/wcr.

Geisinger Health System is an Affirmative Action/Equal Opportunity Employer.

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**Boston University School of Medicine**

Welcome applications for its departments below at ranks of Instructor, Assistant & Associate Professor, or Professor.

- Anatomy & Neurobiology
- Biochemistry
- Microbiology
- Physiology & Biophysics
- Pharmacology & Experimental Therapeutics
- Pathology

Email a cover letter specifying your department of interest with your CV to bumsmed@bu.edu.

Boston University is an equal opportunity and affirmative action employer.

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**VANDERBILT SCHOOL OF MEDICINE**

**GEISINGER HEALTH SYSTEM**

ReDefining the Boundaries of Medicine
THE 2012 LOUISA GROSS HORWITZ PRIZE FOR BIOLOGY OR BIOCHEMISTRY

The Louisa Gross Horwitz Prize was established under the will of the late S. Gross Horwitz through a bequest to Columbia University and is named to honor the donor’s mother. Louisa Gross Horwitz was the daughter of Dr. Samuel David Gross (1805-1889), a prominent surgeon of Philadelphia and author of the outstanding Systems of Surgery who served as President of the American Medical Association.

Each year since its inception in 1967, the Louisa Gross Horwitz Prize has been awarded by Columbia University for outstanding basic research in the fields of biology or biochemistry. The purpose of this award is to honor a scientific investigator or group of investigators whose contributions to knowledge in either of these fields are deemed worthy of special recognition.

The Prize consists of an honorarium and a citation which are awarded at a special presentation event. Unless otherwise recommended by the Prize Committee, the Prize is awarded annually. Dr. Jeffrey C. Hall, Brandeis University, Waltham, MA, Dr. Michael Rosbash, Brandeis University, Waltham, MA and Dr. Michael W. Young, The Rockefeller University, New York, NY were the 2011 awardees.

QUALIFICATIONS FOR THE AWARD

The Prize Committee recognizes no geographical limitations. The prize may be awarded to an individual or a group. When the prize is awarded to a group, the honorarium will be divided among the recipients, but each member will receive a citation. Preference will be given to work done in the recent past.

Nominations must be submitted electronically at: http://www.cumc.columbia.edu/horwitz/

Nominations should include:

1. A summary, preferably less than 500 words, of the research on which this nomination is based.
2. A summary, preferably less than 500 words, of the significance of this research in the fields of biology or biochemistry.
3. A brief biographical sketch of the nominee, including positions held and awards received by the nominee.
4. A listing of up to ten of the nominee’s most significant publications relating to the research noted under item 1.
5. A copy of the nominee’s curriculum vitae.

Deadline date: January 31, 2012
TWO POSITIONS in Biological Sciences
Terrestrial Vertebrate Biologist
Animal Physiologist
The Department of Biological Sciences at California State University, Long Beach (CSULB) invites applications for two tenure-track positions: a terrestrial vertebrate biologist at the ASSISTANT PROFESSOR level, and an animal physiologist at the ASSISTANT/ASSOCIATE PROFESSOR level. The successful candidate will be expected to develop and maintain a high quality, externally funded, independent research program. We are seeking individuals capable of developing and maintaining a high quality, externally funded, independent research program. Preference will be given to individuals who can provide evidence of strong potential to obtain external funding. The successful candidate will be expected to develop and maintain a high quality, externally funded independent research program. Teaching duties will be in the areas of conservation biology, ecology, and general zoology or biology. Minimum Qualifications: (1) Ph.D. in Zoology/Biology with demonstrated research experience and graduate training in area of specialization; (2) Demonstrated potential for evidence of strong potential to obtain external funding; and (3) A publication record and scholarly activities commensurate with experience. Preference will be given to individuals with postdoctoral experience who are working at the graduate or professional level. For full consideration, candidates should send a letter of interest and curriculum vitae in Word format to: Professor Gary Diffie, University of Wisconsin, Department of Kinesiology, 2000 Observatory Drive, Madison, WI 53706. We encourage the submission of all materials electronically in PDF or Word format to: e-mail: diffie@education.wisc.edu. To ensure full consideration, application should be received by December 15, 2011, but applications will be accepted until the position is filled.

FACULTY POSITION
in Biomolecular Structure Determination
The University of Houston (UH) invites applications for a faculty position in Biomolecular Structure Determination. Preference will be given to a scientist with an interest in NMR or X-ray diffraction, which complements current strengths at UH. The University of Houston has outstanding facilities in high field NMR and X-ray diffraction. Applicants for the position should have a Ph.D. in a related field, an outstanding record of research, and a strong commitment to education. The tenure-track position could be in any one of the departments of Biology, Chemistry, or Physics and may be filled at any rank. Please send curriculum vitae, an outline or research interests and three letters of recommendation to: Professor Robert Fox, Department of Biology and Biochemistry, University of Houston, 4804 stencil, Houston, TX 77204-5001. Consideration of applications will begin in November 15, 2011 and will continue until the position is filled. The University of Houston is an Affirmative Action/Equal Opportunity Employer. Minorities, women, veterans, and persons with disabilities are encouraged to apply.

ASSISTANT PROFESSOR
University of Washington
The Department of Biochemistry at the University of Washington (UW) School of Medicine in Seattle invites applications for a tenure-track Assistant Professor position. We are seeking a creative scientist using innovative molecular approaches to understand cellular, developmental, or synthetic biology. Our department is also strongly committed to teaching at the undergraduate, graduate, and medical school levels. UW faculty engage in teaching, research, and service. Applicants should have a Ph.D. in the biosciences or an M.D. and must submit a curriculum vitae and reprints or preprints as PDFs to e-mail: bce@uw.edu by December 15, 2011. Three letters of recommendation (PDFs preferred) should be electronically sent separately to Trisha Davis, Chair, Search Committee, Department of Biochemistry, University of Washington, Box 357410, Seattle, WA 98195-7410. The University of Washington is an Affirmative Action/Equal Opportunity Employer.

CONSERVATION BIOLOGIST
Assistant Professor
SIU Carbondale
The Department of Zoology at SIU Carbondale invites applications for a tenure-track position in animal physiology at the Assistant Professor level. The successful candidate will be expected to develop and maintain a high quality, externally funded research program. Teaching duties will be in the areas of conservation biology, ecology, and general zoology or biology. Minimum Qualifications: (1) Ph.D. in Zoology/Biology with demonstrated research experience and graduate training in area of specialization; (2) Demonstrated potential for evidence of strong potential to obtain external funding; and (3) A publication record and scholarly activities commensurate with experience. Preference will be given to individuals with postdoctoral experience who are working at the graduate or professional level. For full consideration, candidates should send a letter of interest and curriculum vitae in Word format to: Professor Gary Diffie, University of Wisconsin, Department of Kinesiology, 2000 Observatory Drive, Madison, WI 53706. We encourage the submission of all materials electronically in PDF or Word format to: e-mail: diffie@education.wisc.edu. To ensure full consideration, application should be received by December 15, 2011, but applications will be accepted until the position is filled. UW-Madison is an Equal Opportunity/Affirmative Action Employer. We promote excellence through diversity and encourage all qualified individuals to apply. UW-Madison invites in writing, information regarding the applicants must be released upon request. Finalists cannot be guaranteed confidentiality.

POSTDOCTORAL POSITION
Germline Stem Cells
Studies include culture, differentiation, and gene activation in mammalian stem cells. E-mail: jchang@uw.edu; Phone: 206-543-5001. Consideration of applications will begin in November 15, 2011 and will continue until the position is filled. The University of Washington is an Affirmative Action/Equal Opportunity Employer. Minorities, women, veterans, and persons with disabilities are encouraged to apply.

MARKETPLACE
Promab Biotechnologies Inc.
Custom Monoclonal Antibody $4,200
>3,000 CLONES WILL BE SCREENED
1-866-339-0871
www.promab.com info@promab.com

Science Careers
online@sciencecareers.org

Science Careers
www.sciencecareers.org

Science Careers
www.sciencecareers.org

Science Careers
www.sciencecareers.org