E V O L U T I O N  A N D  H U M A N  N A T U R E
An interdisciplinary inquiry for research scholars who welcome the dialogue between theology and science on this topic. 2012–2013: Offering eight RESEARCH FELLOWSHIPS up to $70,000 and two POST-DOCTORAL FELLOWSHIPS of $40,000, the Center of Theological Inquiry in Princeton will convene an interdisciplinary research team of theologians and scientists in residence for the 2012–2013 academic year to address questions of nature and nurture raised by the biological evolution of human beings. Celia Deane-Drummond, University of Notre Dame, and Dominic Johnson, University of Edinburgh, will lead this inquiry. The work of the research team will include seminars with leading scientists and theologians such as Melvin Konner, Simon Conway Morris, Angela Creager, Sarah Coalick, Niels Gregersen, and Wentzel van Huyssteen.

We welcome proposals that explore how the explosion of new research in evolutionary biology, psychology, and anthropology is challenging and changing our understanding of human nature and development, not least in relation to religion and theological accounts of the human condition. Applications are encouraged from scholars in these evolutionary and human sciences and other relevant disciplines, including theology, religious studies, and the history and philosophy of science.

Application window: September 1–November 30, 2011.


The fellowships are supported by a major grant from the John Templeton Foundation.

ASSISTANT PROFESSOR
Experimental Physical Chemistry
Princeton University
Department of Chemistry

The Department of Chemistry at Princeton University invites applications for a tenure-track assistant professor position in experimental physical chemistry. Candidates should have a strong commitment to research and to teaching at the undergraduate and graduate levels, and are expected to have completed the Ph.D. in chemistry or a related field at the time of appointment. Applicants should submit a description of research interests, curriculum vitae, a list of publications, and three letters of recommendation online at website: http://jobs.princeton.edu/applicants/Central?quickFind=61114. The search committee will begin review of applications on October 17, 2011 and will continue until the position is filled.

Princeton University is an Equal Opportunity Employer and complies with applicable EO and Affirmative Action regulations.

ASSISTANT PROFESSOR, ALL AREAS
Princeton University
Department of Chemistry

The Department of Chemistry at Princeton University invites applications for a tenure-track assistant professor position in all areas of chemistry. Candidates should have a strong commitment to research and to teaching at the undergraduate and graduate levels, and are expected to have completed the Ph.D. in chemistry or a related field at the time of appointment. Applicants should submit a description of research interests, curriculum vitae, a list of publications, and three letters of recommendation online at website: http://jobs.princeton.edu/applicants/Central?quickFind=61118. The search committee will begin review of applications on October 17, 2011 and will continue until the position is filled.

Princeton University is an Equal Opportunity Employer and complies with applicable EO and Affirmative Action regulations.

The Smith College Department of Biological Sciences invites applications for an ASSISTANT PROFESSOR in plant physiology, with a focus on ecological and/or environmental questions, beginning July 1, 2012. A Ph.D. is required; teaching and/or postdoctoral experience is preferred. For more information and to apply, visit website: http://jobs.smith.edu. Review of applications will begin on October 17, 2011. Smith College is an Equal Opportunity Employer encouraging excellence through diversity.
Enriching Society through Advanced Materials Science

The Advanced Institute for Materials Research (WPI-AIMR) is one of six research centers established by the World Premier International Research Center Initiative (WPI) that was launched in 2007 by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan. The aim of WPI is to create “globally visible” research centers of the highest standards and boasting outstanding research environments. WPI-AIMR is leading materials science at Tohoku University, which was ranked 3rd in the world (1st in Japan) for citations in the field between 2000-2010 (Thomson Reuters).

The goal of WPI-AIMR is to revolutionize materials science by furthering understanding on how atoms and molecules control common materials. “The key to the achievement of this goal is interdisciplinary research,” emphasizes Director Prof. Y. Yamamoto. To this end, AIMR gathers researchers involved in everything from basic science to applications for a variety of materials, such as bulk metallic glasses (BMG), ceramics, polymers, and biomaterials.

WPI-AIMR welcomes ambitious researchers. A big push has been started to encourage collaboration between mathematics and materials science at WPI-AIMR. The mathematician Prof. M. Kotani, Deputy Director of WPI-AIMR, says, “We mathematicians are excited to help revolutionize materials science. This is indeed a very unique project.”

Recent Topics

Prof. M.W. Chen, principal investigator (PI), is studying BMG at the atomic level. Recently, his group discovered short-range order in BMGs (Nature Mater. 10, 28-33, 2011). This work represents a milestone toward the elucidation of glass formation mechanisms and functional manifestations in BMG.

By using an ultrahigh-resolution angle-resolved photoemission spectrometer (ARPES), Prof. T. Takahashi (PI) and his co-workers found an iron-based high-temperature superconductor with an electronic structure known as a “Dirac cone” that is similar to graphene (Phys. Rev. Lett. 104, 137001, 2010; Physics Today, April 25, 2011). In addition, his team recently succeeded in developing a spin-resolved ARPES spectrometer with the world’s highest resolution, sure to be vital to the future of spintronics.

Environment

Sendai is a beautiful city. Known as “the City of Trees,” and only 100 minutes away from Tokyo, its nature, culture and history provide a great environment for research.

“I have been appointed as a Junior PI of WPI-AIMR, concurrent with my position at Texas A&M. WPI-AIMR is a completely new type of research center in Japan, where foreign researchers can fully concentrate on research owing to excellent support by bilingual administrative staff. In addition, Sendai is a great city, where urban life and the beauty of nature blend to form an exceptional experience.” says Prof. W. Teizer.

URL: http://www.wpi-aimr.tohoku.ac.jp
Internationalizing Japan’s Scientific Landscape

By 2060, Japan’s rapidly aging population will be cut almost in half, says William Tsutsui, dean of the College of Humanities and Sciences at Southern Methodist University and an expert in Japanese economic history. And with the mandatory retirement age set at 60 (or even younger) at many prominent research institutions, Japan’s technical output is in danger. Tsutsui calls it a “timebomb.” But in the last decade, the Japanese government has sought to counter this by internationalizing the country through a series of administrative innovations, alliances with foreign government agencies, financial support for foreign scholars, and programs that bolster top universities’ international recruitment efforts. By Alaina G. Levine

Slowly but surely it appears that the Land of the Rising Sun is emerging from its self-imposed technological isolation. Many governmental plans are now in place to recruit and retain foreigners into Japan’s scientific sphere; however, there are still some barriers for foreign scholars who would like to build their career in Japan, including a general lack of linguistic prowess and difficulty navigating cultural nuances.

“It is undeniable that there are plenty of small inconveniences for foreigners who wish to live and work in Japan,” says William Tsutsui, dean of the College of Humanities and Sciences at Southern Methodist University and an expert in Japanese economic history. “I am not sure that any of these bureaucratic, social, and cultural challenges are greater than, say, the challenges faced by Indian or Chinese scientists who choose to study and work in the United States. Overseas scientists relocating to Japan will need patience, and some Japanese friends and colleagues to help them out in their transition, but shouldn’t worry too much about relocating to one of the world’s safest, healthiest, best educated, and wealthiest nations,” he says.

However, Tsutsui does worry that the 9.0 magnitude earthquake that rocked Japan on March 11, 2011 may have hindered the country’s internationalization endeavors. The effects of the earthquake, and related tsunami and nuclear concerns, will come down to whether there is enough money to support research in the future. The Japanese government supports science and technology (S&T) through a variety of programs and ministries. Its funding priorities are determined every year based on the Science and Technology Basic Plan, which is a midterm national S&T policy revised every five years, explains Takashi Ohama, director of the Washington, D.C. office of the Japan Science and Technology Agency (JST), one of the major research funding agencies. “Currently, the fourth S&T Basic Plan 2011–2015 is under re-examination to incorporate necessary actions to recover from the disaster of the earthquake and the subsequent tsunami,” says Ohama.

“Can that commitment to higher education stay as strong as in the last few years?” wonders Tsutsui. “Japan might become a victim of funding” quagmires, especially with a prolonged recession that has lasted more than 20 years and a soaring national debt, he says.

The government has been striving to internationalize the country for many years now through a multitude of programs, with mixed results. “Internationalize’ has become a mantra,” says Tsutsui. But the earthquake could stymie certain goals of attracting foreign talent. For example, at RIKEN, one of the most prestigious research institutions in the

UPCOMING FEATURES

Faculty: Financial Planning for Scientists—September 9
Top Employers Survey—October 7
Focus on Europe—October 21
country, its Foreign Postdoctoral Researchers (FPR) Program usually receives 130–200 applications every year, writes Junko Suzuki, deputy manager of RIKEN’s Global Relations Office. “This year we have received slightly fewer applications than normal” because of the earthquake, she says.

On the other hand, in the months following the earthquake, “most foreign researchers have come back to Japan,” observes Fumiyo Kaneko, deputy director of the Washington, D.C. office of the Japan Society for the Promotion of Science (JSPS), another funding agency. In fact, Kaneko states that 87 percent of foreign researchers have returned to the country, and the agency has altered some of its policies to allow for flexibility “so researchers wouldn’t lose their funding” by leaving, as long as they return within the fiscal year, she says.

Japan “understands the importance of ties with other countries,” says Naoki Himiya, the former director of the Global 30 (G30) Program, which was designed to help universities with internationalization. And even with a 4 percent decline in foreign students following the earthquake, he is optimistic about focusing the nation’s energies on international partnerships. “After the earthquake, this kind of mindset is even stronger,” notes Himiya.

A NATIONAL GOAL: RECRUIT FOREIGNERS
Although the government has sought to internationalize the country for decades, it wasn’t until the early 2000s, when the Japanese government reorganized itself into new ministries, that recruiting foreign talent became more of a crystallized mission. The main ministries involved in S&T research and support are the Ministry of Education, Culture, Sports, Science and Technology (MEXT), and the Ministry of Economy, Trade, and Industry (METI). Within MEXT are the two funding agencies, JSPS and JST, which support foreign scientists through grants and fellowship programs.

JSPS, with a fiscal year 2011 budget of ¥334.7 billion (approximately US$4.2 billion) (including ¥7 billion (US$88 million) allocated for international projects) has collaborations with 90 international partner organizations, such as the National Science Foundation (NSF), National Institutes of Health, and National Natural Science Foundation of China. It awards grants to individual investigators for curiosity-driven, bottom-up projects that might not necessarily be in line with the strategic goals of the agency.

In contrast, JST, with an annual operating budget of approximately ¥118 billion (US$1.5 billion), sponsors research that is top down, aligning with the annual strategic objectives of MEXT, such as developing advanced materials, achieving a low-carbon society, and advancing immunology. Requests for Proposals are typical and research is more mission-oriented.

JSPS also has a number of fellowship programs that are designed to engage international scholars at all levels in their careers, while JST offers a cofunding program in cooperation with more than 20 counterpart foreign funding organizations in order to promote bilateral and multilateral research collaboration.

G30, which was established in 2009 under MEXT, focused on administering grants to universities to launch classes in English, improve mechanisms for accepting international students, promote international cooperation, and nurture personnel who can play an active role in the global arena, according to Osaka University’s G30 website (www.rcnp.osaka-u.ac.jp/osaka-ip/international/g30.php). It recognized that “the (G30) universities are the core, the center of internationalizing Japanese society,” says Himiya.

MEXT’s goal was to support 30 of the best universities in Japan, and 13 institutions have benefitted from the program so far. And although G30 has been phased into continued »
Observation of IMMUNE REACTIONS

IFReC aims to comprehensively understand immune dynamism. To this ultimate goal, we are integrating imaging and bioinformatics technologies with experimental biology in order to study a wide range of phenomena at the molecular, cellular, tissue, and whole body levels. This integrated approach is not only providing a more systematic understanding of the immune system but is also targeted at medical applications through translational research. Advancement in our understanding of basic immunology improves medical strategies for body defense against infectious diseases and cancers, and diagnosis and treatment of immune-related diseases.

Upcoming Events

Jan 16-20, 2012
IFReC-SlGN Winter School on Advanced Immunology
http://ifrec-sign-winterschool.org

May 22-23, 2012
The International Symposium
"Dynamism of Immune Reactions & Regulations"
(co-organized by FIRST program AKIRA Project / Kishimoto Foundation)
“RIKEN wanted to recruit more foreigners, to get a more global and international research environment,” she writes. After receiving her Ph.D. from Linköping University in her native Sweden, she arrived in Japan in 2009 and has greatly enjoyed her experience. “The FPR program offers young foreign researchers with creative ideas the opportunity to pursue research at RIKEN under the direction of a RIKEN laboratory head,” she describes. Postdoc applicants need to propose their own original research project and find a lab that will meet their needs.

Sörgjerd says her research at the Bioengineering Laboratory, which focuses on protein misfolding, is both stimulating and fun. As an added benefit, she receives a slightly higher salary than the average postdoc salary in Japan. Each month, she also receives ¥487,000 (US$6,100) for living expenses and a housing allowance of ¥40,000 (US$500), and annually she is granted ¥1 million (US$12,600) for any research-related expense, including travel and equipment. Though her initial contract is only for one year, she can extend it to a maximum of three.

THE CHALLENGES TO FOREIGN RECRUITMENT
A systemic hierarchical culture can be taxing to navigate, but “the biggest single challenge” to Japan’s current future triumph in science is language-related, says James R. Bartholomew, a professor of history at the Ohio State University with a specialty in the history of Japanese science and higher education. Indeed, many foreigners indicate that not knowing Japanese has impeded their ability to prosper in the country. For example, some grant applications are only allowed to be submitted in Japanese. One RIKEN principal investigator (PI) describes how administrative meetings are held in Japanese and though his secretary can translate, she doesn’t catch the subtle political nuances being discussed that impact his research.

Tsutsui counters that the language issue is a “misconception” and that “the biggest change over the last 40 years” has been the shift to solidifying English as the language of use in the S&T climate. More and more classes are being offered in English, and in lab environments, discussions and talks often take place in English. At RIKEN, English generally is the language of use. For example, JSPS holds several internationalization meetings relating to Japanese language, culture, and society for international JSPS fellows, says Kaneko.

There are other obstacles. Not all landlords will rent apartments to immigrants. It is not easy to set up a bank account, says one foreign PI, and good international schools for scholars’ children can be hard to find.

But knowing that these difficulties exist, the government seeks to assist foreigners. For example, JSPS holds several orientation meetings relating to Japanese language, culture, and society for international JSPS fellows, says Kaneko.

AVAILABILITY OF PERMANENT POSITIONS
One issue of great concern to both Japanese and foreign scholars is the scarcity of tenured faculty positions. “Permanent positions at universities and labs are quite limited,” says Michio Kondo, a professor at Tokyo Institute of Technology and a project director in the Research Center for Photovoltaic Technologies at the National Institute of Advanced Industrial Science and Technology (AIST). At this institute, one can

continued »
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obtain a five-year position, which is considered temporary, but then apply for another five years, almost as a formality. However, the person has to leave at the conclusion of the 10 years if a tenured position has not been offered. And the number of these permanent positions is small.

**Uwe Schneider**, an assistant professor of organic chemistry at the University of Tokyo, explains that crafting relationships is a major key to procuring permanent academic employment. He has been in Japan for more than seven years, starting off as a JST-supported postdoc, and then advancing to a temporary staff job. When a professorial position became available, in his current department, he applied and won it. As an assistant professor, he is already tenured. “Working as a postdoc and a staff member helped,” he says. His research was clearly known among his colleagues, which bolstered his chances of landing the job.

Although networking and reputation management are important in any industry and in any country, in Japan, sources say, it is even more critical to be known. **Luca Baiotti**, an Italian physicist at Osaka University, currently has a temporary job under the G30 Program. As a “Specially Appointed Assistant Professor,” he has a five-year contract to teach physics in English to foreign M.S. and Ph.D. students, in addition to doing research. When the contract expires, Baiotti affirms his desire to pursue a permanent position. “In Japan,” he says, “more than in the U.S., it is very important to build a network of acquaintances who know you well to advance in one’s career.”

Baiotti stresses that having an established scientific reputation within the Japanese university is crucial, but it is also important to be known throughout Japan and even in China, Korea, and Taiwan as well.

**AN ISOLATED NATION**

Even while it aggressively seeks to internationalize, Japan must face a long-term zeitgeist that everything needed to do research is already in Japan, so it is not necessary to go elsewhere. **Adarsh Sandhu**, a professor of physics and electronics at the Toyohashi University of Technology, notices that younger scientists typically do not want to go overseas to pursue their research and therefore may miss opportunities to work with the best researchers in the world. Unlike China and India, he says, he doesn’t see a “hunger” within Japan to advance outside its national borders, because “there’s enough funding to do research here.” But this attitude “will affect the future of science in this country,” he cautions.

Indeed, Kaneko remarks that a misunderstood aspect of Japanese scientific culture is why young native scientists don’t necessarily go outside of the nation for their research. “It is difficult to find a job in Japan after they come back,” she illuminates. “They are out of the loop, so to speak.” And she has found that a certain number of Japanese early career professionals “don’t find any necessity to go abroad because the research environment in Japan has gotten better.”

**THE ATTRACTION AND ADVICE FOR FUTURE RECRUITS**

Bartholomew believes it will take at least a decade for the nation to recover from the earthquake. But even with one-tenth the population of China, Japan “will do whatever is necessary to be competitive, and anyone who forgets that is shortsighted,” he declares.

Japan continues to employ new initiatives to attract international talent. The Okinawa Institute of Science and Technology (OIST) was established with a requirement that 50 percent of its faculty and students be foreigners. The MEXT-funded World Premier International Research Center Initiative (WPI) wants its six centers to have at least 30 percent of its personnel, including faculty and students, to be non-Japanese. “The Government of Japan has made internationalizing its universities and its S&T enterprise a priority and is implementing a variety of programs to advance this goal. These programs—some of which logically involve limited term appointments—will enable Japanese university science and engineering departments to open their faculty positions to the most qualified scientists and engineers from around the world, bringing diversity, breadth of experience, and greater opportunities for international research collaborations to Japanese universities,” says **Anne Emig**, head of the National Science Foundation Tokyo Regional Office.

Meanwhile, sources advise that the best way for young professionals to secure a job, particularly one of the precious few tenured positions in academia, is to migrate to Japan early in one’s career. Go as a postdoc, and get to know researchers in the department, say Schneider and Baiotti.

A postdoc appointment in Japan “can be a glorious experience as long as there are matched interests with the PI,” says **Kathy Rockland**, who spent a decade as head of a laboratory at RIKEN’S Brain Science Institute. Her advice is simple and mirrors almost every other foreigner interviewed: Learn the language. She also recommends asking for introductions to other labs while in-country and “keeping collaborations open in your home country.” Sörgjerd gleefully attests, “I would recommend for anybody to do a postdoc in Japan, and I would do it again if given the chance.”

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DOI: 10.1126/science.opms.r1100107
Fluctuation controls biological functions!

Living phenomena are the consequence of a series of various chemical reactions, in which a number of biological molecules are cooperatively involved. Understanding the biological reactions at the molecular level is one of the major targets in many scientific fields. Although the structures of biological molecules provide important information for these purposes, the static structures are not sufficient. Dynamics are essential, because reactions are always dynamic. Since almost all biological molecules work in water at ambient temperature, it is impossible to escape from thermal fluctuations. Fluctuation involves random movements without changing the average structure and energy. How can such biological molecules perform selective and efficient reactions for their functions in life? Does the fluctuation play an important role in the reactions?

In support of a Grant-in-Aid for Scientific Research on Innovative Areas (research in a proposed research area) from the Ministry of Education, Culture, Science, and Technology in Japan, we organized a project group termed “Molecular Science of Fluctuations toward Biological Functions”. In this research area, we are creating and establishing a field of “fluctuation of biological molecules” by clarifying the importance of fluctuations for biological reactions.

For this purpose, scientists in a variety of fields (physics, chemistry, pharmacy, medical science etc.) collaborate together and elucidate the nature of fluctuations and the relationships between fluctuations and the chemical reactions related to various biological functions. The project consists of the following three research sections.

Research section A01: "Detection of fluctuation"

The main targets of this section are the development of experimental techniques for the detection of structural and energy fluctuations, and the characterization of the nature of the fluctuations. In particular, the detection of fluctuations of short-lived intermediate species in a time domain is an important target of this section. Using such methods, we will elucidate whether fluctuation is really enhanced during the reactions. The development of theoretical methods to characterize the fluctuation is also a target of this section.

Research section A02: "Regulation of fluctuation"

The aim of this section is to seek new methods for regulating fluctuation by mutations, introduction of artificial amino acids or modification by newly designed organic reagents. By regulating fluctuation, we can clarify how fluctuation is important for the reactions. One of the main targets of this section could be studied on the reaction mechanisms and roles of the recently discovered intrinsically denatured proteins (IDPs), which should possess flexible conformations.

Research section A03: "Fluctuation toward function"

The studies in this section are mainly focused on clarifying direct relationships between fluctuations and various biological functions. The target molecules could be proteins, DNA, RNA, membranes, and so on. Theoretical and experimental studies will be carried out to explore the structure formation (folding), dynamics, and functions of proteins and other biomolecules. We also aim to develop clinical chemotherapy strategies using fluctuation.

Brief summaries of the current status of the results are described below.

In order to clarify the reaction coordinates along the function and changes in the fluctuation, we, in the research section A01, are utilizing a variety of possible techniques, such as NMR relaxation method, spectroscopy and AFM of single molecules, thermodynamics, and theoretical MD simulation. For example, the group headed by Prof. Terazima has succeeded in developing a time-resolved thermodynamics combined with a high pressure technique to trace the changes in the fluctuation in the time domain. Furthermore, this group has developed a new time-resolved technique of the diffusion coefficient for studying reactions that lead to the biological functions.

In the research section A02, the group led by Prof. Kataoka has succeeded in creating mutants of functional proteins that can be regarded as models of IDPs. They have revealed that some mutants can recognize and bind their ligand in a disordered state and that the binding induces folding, suggesting that disorder and fluctuation are essential for the ligand recognition of IDPs in some cases. Prof. Hoshaka developed a unique method to introduce several artificial amino acids into desired positions in a target protein. These methods have been widely utilized by the project members.

In the research section A03, some applications have been pursued using the fluctuation. For example, Prof. Ueoka's group produces hybrid liposomes (HLs), which are mixtures of vesicular and micellar molecules. Remarkably high inhibitory effects of HLs with higher membrane fluidity on the growth of tumor cells in vitro and in vivo have been obtained without drugs. Furthermore, a successful clinical chemotherapy involving drug-free HL administration to patients with lymphoma has been reported. HLs can distinguish between tumor and normal cells through fusion and accumulation into tumor cell membranes only after HL treatment.

We will hold the 5th Open Symposium on January 7 and 8, 2012, at Todaiji Culture Center (Nara). We call for poster presentations at the symposium. More information and the results of this project can be obtained in our homepage:

http://kuchem.kyoto-u.ac.jp/hikari/yuragi/index_e.html

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The International Institute for Carbon-Neutral Energy Research (i²CNER) is a member of the World Premier International Research Center Initiative established by the Japanese Ministry of Education, Culture, Science and Technology (MEXT). Faculty members and researchers associated with i²CNER are dedicated to the Institute's mission to contribute to the creation of a sustainable and environmentally friendly society by advancing fundamental science to reduce CO₂ emissions and the realization of a hydrogen economy. The ITO Campus of the Kyushu University houses extensive state-of-the-art experimental and computational facilities.

QUALIFICATIONS & CURRENT OPENINGS
All faculty members are expected to initiate and sustain vigorous research programs that both advance and are relevant to i²CNER's mission. Candidates for senior faculty positions must have achieved national and international recognition for their research accomplishments. Post-doctoral research associates will join research groups relevant to their field of expertise and education.

i²CNER is currently accepting applications in the following research areas:

1. The Institute is initiating a focus area on energy analysis for Japan and/or globally. This effort will include understanding current energy sources, processes, demands, use, costs, efficiency, greenhouse gas emissions, and potential future energy scenarios for Japan and/or globally. Emphasis will be given to the potential costs and use of low carbon energy systems to meet the future energy demand. The successful candidate will have:
   - Familiarity with and experience in energy analysis for Japan and/or globally.
   - Proficiency in developing energy demand, costing, efficiency, and green house gas emission models.
   - Familiar with most/all energy pathways.
   - Knowledge on renewable energy technologies
   - Wind to electricity for water electrolysis for hydrogen production and the use of hydrogen in fuel cell vehicles, the use of biomass to produce biofuels for transportation.

2. i²CNER is also seeking candidates with experimental or computational expertise in the physics, chemistry, mechanics, and materials science aspects of:
   - Hydrogen embrittlement (Mechanics, Fatigue and Fracture, Materials, Tribology)
   - Chemistry for efficient material transformation
   - Basic science issues underlying energy technologies
   - Applied (and/or basic) science issues underlying geologic/sub-seabed/ocean CCS (CO₂ capture and storage)
   - Thermophysical Properties of Hydrogen and CO₂
   - Solar/Chemical Hydrogen Production

REQUIRED APPLICATION MATERIALS*
1. Cover Letter
2. Application Form (located on website)
3. Curriculum vitae that details research experience and interests
4. Research Proposal (located on website)
   a. NOTE: Proposal templates vary depending upon interest area. Specifically, use template #1 for Energy Analysis and #2 for all other interest areas.
5. List of publications
   a. Separate lists for refereed journal and conference proceedings.
6. Names and contact information of four references

*All materials must be submitted in English.

SALARY & STARTING DATE
Salary will be commensurate with qualifications and experience. The starting date will be as soon as possible after the closing date.

APPLICATION DEADLINE
- Wednesday, November 30, 2011, 17:00 (Japan)
- Interviews may take place prior to closing date; however, no final decisions will be made until after this time.

APPLICATION SUBMISSION
Please email your application via email attachment to: wpi-office@i2cner.kyushu-u.ac.jp

QUESTIONS?
Please contact the i²CNER Administrative Office at: wpi-office@i2cner.kyushu-u.ac.jp

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FOR MORE INFORMATION

Kyushu University is an Equal Opportunity/Affirmative Action Employer. The administration, faculty and staff embrace diversity and are committed to attracting qualified candidates who also embrace and value diversity and inclusivity.
Clinical Tenure-Track Position in Mycology

The Laboratory of Clinical Infectious Diseases (LCID), Division of Intramural Research (DIR), National Institute of Allergy and Infectious Diseases (NIAID), is seeking an outstanding tenure-track investigator to work in the area of clinical mycology.

This clinical tenure-track investigator will implement and direct a leading research program that can include, but is not limited to, the diagnosis, management, drug treatment, immunology, and complications of fungal infections. The investigator will conduct a vigorous research program that includes inpatient and outpatient responsibilities at the NIH Clinical Center, at international sites, or both. Involvement in human studies of fungal diseases in patients is essential.

An outstanding postdoctoral record of research accomplishment is required. An M.D., M.D./Ph.D., or equivalent degree and board eligibility/board certification in pediatrics or internal medicine is required. Specialization in infectious diseases is highly desirable. The investigator will be expected to meet the requirements for authorization of patient care privileges by the Credentialing Services of the NIH Clinical Center, at international sites, or both. Involvement in human studies of fungal diseases in patients is essential.

An outstanding postdoctoral record of research accomplishment is required. An M.D., M.D./Ph.D., or equivalent degree and board eligibility/board certification in pediatrics or internal medicine is required. Specialization in infectious diseases is highly desirable. The investigator will be expected to meet the requirements for authorization of patient care privileges by the Credentialing Services of the NIH Clinical Center, at international sites, or both. Involvement in human studies of fungal diseases in patients is essential.

LCID conducts clinical and basic studies of important human infectious and immunologic diseases. The defining feature of LCID is the focus on patients and their infections to develop a comprehensive understanding of natural history, pathogenesis, pathophysiology, and management of diseases. The program integrates clinical, cellular, and molecular investigations. The major themes of the laboratory center on infections that are recurrent or chronic, as these provide insight into both host and pathogen. Additional information about LCID is available at www.niaid.nih.gov/labsandresources/labs/aboutlabs/lcid

The investigator will be assigned independent resources to include clinical and/or laboratory support personnel, equipment, space, and an allocated annual budget for services, supplies, and salaries sufficient to foster success. This is a tenure-track appointment under Title 42. Salary is dependent on experience and qualifications.

Interested candidates may contact Steven Holland, M.D., Chief, LCID, DIR, NIAID, at 301-402-7684 or sholland@niaid.nih.gov for additional information about the position.

To apply, email your curriculum vitae, bibliography, and an outline of your proposed research program (no more than two pages) to Ms. Bao-Hanh Ngo at LCIDMycologyTTSearch@niaid.nih.gov. In addition, three letters of recommendation must be sent directly from the referees to Chair, NIAID DIR Mycology Clinical Tenure/Tenure-Track Search Committee, c/o Ms. Bao-Hanh Ngo at LCIDMycologyTTSearch@niaid.nih.gov or 10 Center Drive MSC 1356, Building 10, Room 4A-22, Bethesda, MD 20892-1356. Email is preferred. Applications will be reviewed starting on September 23, 2011 and will be accepted until the position is filled. Competitive candidates may be asked for additional references.

Further information about DIR laboratories is available at www.niaid.nih.gov/about/organization/dir and information on working at NIAID is available at www.niaid.nih.gov/careers/yc1.

National Institute of Allergy and Infectious Diseases
Applications are invited for:-

Department of Physics
Assistant Professors
(Ref. 1112/019(665)/2)

The Department invites applications for faculty positions at the level of Assistant Professor with prospect for substantiation tenable from the academic year 2012-2013. The Department anticipates that there will be a maximum of three positions.

Applicants should have a relevant PhD degree with postdoctoral research experience. Outstanding candidates in all areas of physics, particularly in the fields of experimental condensed matter physics, theoretical and experimental biophysics, are welcome to apply. Successful candidates are expected to demonstrate a strong record of research accomplishments, potential for establishing a significant externally funded research programme, and a strong interest in teaching at undergraduate and postgraduate levels. Appointments will normally be made on contract basis for up to three years initially, which, subject to mutual agreement, may lead to longer-term appointment or substantiation later (substantive appointment may be considered during the second three-year contract). Applications will be accepted until the positions are filled.

Salary and Fringe Benefits
Salary will be highly competitive, commensurate with qualifications and experience. The University offers a comprehensive fringe benefits package, including medical care, a contract-end gratuity for appointments of two years or longer, and housing benefits for eligible appointees. Further information about the University and the general terms of service for appointments is available at http://www.cuhk.edu.hk/personnel. The terms mentioned herein are for reference only and are subject to revision by the University.

Application Procedure
Applications (comprising a full curriculum vitae, a detailed publication list with three selected published papers, a research plan, a teaching statement, and three letters of recommendation) should be sent to Professor Ke-Qing Xia, Chairman, Department of Physics, The Chinese University of Hong Kong, Shatin, Hong Kong. (email: physics@ cuhk.edu.hk; fax: (852) 2603 5204). The Personal Information Collection Statement will be provided upon request. Please quote the reference number and mark 'Application – Confidential' on cover.

Department of Surgery
POSTDOCTORAL RESEARCH ASSOCIATE

The Department of Surgery in the College of Human Medicine at Michigan State University is seeking qualified candidates for a POSTDOCTORAL RESEARCH ASSOCIATE. Sponsored projects involve the investigation of the cellular signal pathways that regulate the stem cell reprogramming in host defense response and tissue regeneration processes.

The preferred candidate should have a PhD or MD/PhD in biomedical sciences with a strong background in immunology, stem cell biology, or molecular biology. Experience in flow cytometry, cell signal transduction, proteomics, immunohistochemistry, and techniques of induced pluripotent stem cells are highly desirable. Strong work ethic and sound communication skills required. Applicants with prior publications in peer-reviewed journals are favorable. Highly motivated recent graduates are especially encouraged to apply.

Interested candidates should send cover letter, statement of research interests, and CV with names of 3 references by email to Ping Zhang, MD, PhD, Professor of Surgery, Director of Surgical Research, MSU Department of Surgery, Michigan State University, East Lansing, Michigan. Email: Ping.Zhang@hc.msu.edu.

MSU is committed to achieving excellence through cultural diversity. The University actively encourages applications and/or nominations of women, persons of color, veterans and persons with disabilities.

The University of Iowa is an Equal Opportunity Employer.

Department of Biochemistry
OBESITY AND DIABETES FACULTY SEARCH
ROY J. AND LUCILLE A. CARVER COLLEGE OF MEDICINE
THE UNIVERSITY OF IOWA

Now in its 3rd year of a multi-year expansion, the Department of Biochemistry (biochem.uiowa.edu) seeks outstanding applicants for a tenure track faculty position at any rank in the area of obesity and/or diabetes. The successful candidate will be expected to participate actively in a multidisciplinary University of Iowa Obesity Initiative (OI) encompassing research and education, and will be appointed to the Fraternal Order of Eagles Diabetes Research Center (FOEDRC), newly established by a major gift to the University from the Eagles. New faculty will complement the University’s existing expertise to form the core of this ambitious initiative. Participation in the OI and FOEDRC will be an important component in performance evaluations. Outstanding research space with state-of-the-art shared instrumentation is available. All applicants must have a relevant doctoral degree and productive research experience focusing on an area such as carbohydrate or fat metabolism, orexigenic/anorexigenic signaling, nutritional control of gene expression, or other molecular program mechanistically linked to obesity and/or diabetes. Candidates whose research will forge strong ties between Biochemistry, the OI and the FOEDRC are encouraged to apply.

To apply for this position visit The University of Iowa website at http://jobs.uiowa.edu, requisition #59827. All applicants should include a CV and a 3 to 5 page summary of research accomplishments and future plans. Applicants for the rank of Assistant Professor should ask three referees to submit letters to obesity@uiowa.edu re: biochem search. Applicants to the ranks of Associate Professor or Professor will be asked to provide names of three referees. Consideration of completed applications will begin on November 1, 2011.

The University of Iowa is an Equal Opportunity and Affirmative Action Employer.
**APPLICATION INSTRUCTIONS:**

Please apply to the Scholars Program through the BSSP website at: [http://www.med.umich.edu/medschool/research/bssp/](http://www.med.umich.edu/medschool/research/bssp/).

A curriculum vitae (including bibliography), a three-page research plan, an NIH biosketch, and three original letters of support should all be submitted through the BSSP website. More information about the Scholars Program, instructions for applicants and those submitting letters of recommendation, and how to contact us is located on the BSSP web site: [http://www.med.umich.edu/medschool/research/bssp/](http://www.med.umich.edu/medschool/research/bssp/). The deadline for applications is Friday, October 28, 2011.

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**BIOLISTIC SCIENCES SCHOLARS PROGRAM**

**For Junior, Tenure-Track Faculty**

The University of Michigan announces recruitment for the Biological Sciences Scholars Program (BSSP) to continue to enhance its investigational strengths in the life sciences research programs.

Now entering its 15th year, this Program has led to the recruitment of outstanding young scientists in the areas of genetics, microbiology, immunology, virology, structural biology, pharmacology, biochemistry, molecular pharmacology, stem cell biology, cancer biology, physiology, cell and developmental biology, and the neurosciences. The Program seeks individuals with PhD, MD, or MD/PhD degrees, at least two years of postdoctoral research experience, and evidence of superlative scientific accomplishment and scholarly promise. Successful candidates will be expected to establish a vigorous, externally-funded research program, and to become leaders in departmental and program activities, including teaching at the medical, graduate, and/or undergraduate levels. Primary college and department affiliation will be determined by the applicant’s qualifications and by relevance of the applicant’s research program to departmental initiatives and focus. All faculty recruited via the BSSP will be appointed at the Assistant Professor level.

**APPLICATION INSTRUCTIONS:** Please apply to the Scholars Program through the BSSP website at: [http://www.med.umich.edu/medschool/research/bssp/](http://www.med.umich.edu/medschool/research/bssp/). A curriculum vitae (including bibliography), a three-page research plan, an NIH biosketch, and three original letters of support should all be submitted through the BSSP website. More information about the Scholars Program, instructions for applicants and those submitting letters of recommendation, and how to contact us is located on the BSSP web site: [http://www.med.umich.edu/medschool/research/bssp/](http://www.med.umich.edu/medschool/research/bssp/). The deadline for applications is Friday, October 28, 2011.

*The University of Michigan is an Affirmative Action/Equal Opportunity Employer.*
Tenure-Track Assistant Professor in the Department of Chemistry
(Ref.: 20110832)

Applications are invited for tenure-track appointment as Assistant Professor in the Department of Chemistry, from July 1, 2012 or as soon as possible thereafter. The post will initially be made on a three-year term with the possibility of renewal upon mutual agreement. Appointment with tenure will be considered during the second three-year contract.

Applicants should possess a Ph.D. degree in Material Chemistry with a strong synthetic background. The appointee is expected to develop a vigorous and independent research program and excel in both undergraduate and postgraduate teaching. A suitable start-up fund for research will be provided. Information about the Department can be obtained at http://chem.hku.hk/.

Annual salary for Assistant Professorship will be in the range of HK$348,980 – 749,520 (subject to review from time to time at the entire discretion of the University) (approximately US$1 = HK$7.8). A highly competitive salary commensurate with qualifications and experience will be offered. At current rates, salaries tax does not exceed 15% of gross income. The appointment will attract a contract-end gratuity and University contribution to a retirement benefits scheme, totalling up to 15% of basic salary, as well as leave, and medical/dental benefits. Housing benefits will be provided as applicable.

Applications are requested to apply on-line at https://jobs.hku.hk. Please also upload a C.V., three letters of recommendation, and a research proposal via the online application system. Closes October 31, 2011. Candidates who are not contacted within 3 months of the closing date may consider their applications unsuccessful.

The University is an equal opportunity employer and is committed to a No-Smoking Policy.

Tenure-Track Assistant Professor in the Department of Chemistry
(Ref.: 20110832)

Applications are invited for tenure-track appointment as Assistant Professor in the Department of Chemistry, from July 1, 2012 or as soon as possible thereafter. The post will initially be made on a three-year term with the possibility of renewal upon mutual agreement. Appointment with tenure will be considered during the second three-year contract.

Applicants should possess a Ph.D. degree in Material Chemistry with a strong synthetic background. The appointee is expected to develop a vigorous and independent research program and excel in both undergraduate and postgraduate teaching. A suitable start-up fund for research will be provided. Information about the Department can be obtained at http://chem.hku.hk/.

Annual salary for Assistant Professorship will be in the range of HK$348,980 – 749,520 (subject to review from time to time at the entire discretion of the University) (approximately US$1 = HK$7.8). A highly competitive salary commensurate with qualifications and experience will be offered. At current rates, salaries tax does not exceed 15% of gross income. The appointment will attract a contract-end gratuity and University contribution to a retirement benefits scheme, totalling up to 15% of basic salary, as well as leave, and medical/dental benefits. Housing benefits will be provided as applicable.

Applications are requested to apply on-line at https://jobs.hku.hk. Please also upload a C.V., three letters of recommendation, and a research proposal via the online application system. Closes October 31, 2011. Candidates who are not contacted within 3 months of the closing date may consider their applications unsuccessful.

The University is an equal opportunity employer and is committed to a No-Smoking Policy.

MPI-UBC Research Fellowships
The Max-Planck-UBC Centre for Quantum Materials

The Max-Planck-UBC Centre for Quantum Materials was founded in 2011 by the Max-Planck-Gesellschaft (MPG) and the University of British Columbia (UBC) and is codirected by B. Keimer (MPG) and G.A. Sawatzky (UBC). The Centre provides a forum for interdisciplinary cooperation between physicists, chemists, and materials scientists, with emphasis on the experimental and theoretical study of quantum phenomena in complex materials and devices.

Research activities range from material synthesis and device fabrication to the study of their physical properties using a variety of transport, thermodynamic, structural, and spectroscopic probes, with bulk/surface/interface sensitivity. The theoretical and computational understanding of these quantum materials and phenomena is also a critical component of the MPG-UBC Centre. More details on the research groups and their activities can be found at http://www.mpg-ubc.mpg.de or http://www.mpg-ubc.ubc.ca.

We are advertising a number of top-tier Max-Planck-UBC research fellowships. We encourage highly motivated individuals with a strong research record and less than three years of postdoctoral experience to apply directly to the Centre. Depending on the focus of research, the supervisor will either be from the Max-Planck Society or the University of British Columbia, with a co-supervisor from the respective partner institution. For the detailed application procedure, please visit http://www.mpg-ubc.mpg.de/MPG-UBC-fellowships.html or http://mpg-ubc.ubc.ca/MPG-UBC-fellowships.html.

In addition, a number of postdoctoral and PhD-student positions are also available within individual groups participating in the Max-Planck-UBC Centre for Quantum Materials; a list of open projects, which will be updated regularly, can be found under “Projects” at the home page of the Centre. Potential candidates are encouraged to contact directly the research group leaders.

Tenure-Track Immunology Faculty Positions

The Department of Immunology at the University of Connecticut Health Center seeks outstanding investigators for two tenure-track positions at the Assistant/Associate/Full Professor level. Although all areas of immunology will be considered, we are particularly interested in individuals using molecular, cellular and translational approaches to study immune system function in vivo. Areas of priority include but are not limited to mucosal immunity, innate immunity, signal transduction and transcriptional control, and dendritic cell biology. The new hires will participate in a vibrant Ph.D. training program and have access to a growing translational research community. Salary and start-up funds are highly competitive and outstanding core facilities are available. Applicants must have a Ph.D. and/or M.D. with a history of successful grant support, as well as a strong track record of groundbreaking research. The immunology research community at UCHC includes about 120 members of academic and academic-related staff.

The appointee is expected to develop a vigorous and independent research program and excel in both undergraduate and postgraduate teaching. A suitable start-up fund for research will be provided. Information about the Department can be obtained at http://immune.uchc.edu.

Applications should apply at http://immune.uchc.edu search number 2012-067 and submit curriculum vitae, a two-page summary of research interests and the names of three references. Information may also be submitted to Dr. Leo Lefrènaçios, Ph.D., Chairman, Department of Immunology, UConn Health Center, Farmington, CT. Email: immunology@uchc.edu. For further information on UCHC immunology, please visit http://immune.uchc.edu.

UCHC is an Equal Opportunity Employer M/F/V/PwD.
FACULTY POSITION IN BACTERIAL PATHOGENESIS
Department of Pathology, Microbiology and Immunology
Program in Microbial Pathogenesis
Vanderbilt University School of Medicine

The Department of Pathology, Microbiology and Immunology at Vanderbilt University School of Medicine invites applications for a tenure-track faculty position in bacterial pathogenesis at the Assistant Professor level (PhD, MD, MD/PhD). Successful candidates will be expected to establish and maintain an independent research program and participate in teaching of graduate and medical students. Candidates should have substantial post-graduate training highlighted by peer-reviewed publications that demonstrate research productivity.

Vanderbilt University Medical Center, located on the Vanderbilt University campus, is home to internationally recognized programs in bioinformatics, drug discovery, global health, inflammation, imaging science, pharmacology, proteomics, and vaccine science. The School consistently ranks in the Top 20 US Medical Schools and provides outstanding opportunities for scholarship, collaboration, and teaching. The Vanderbilt University campus is a National Arboretum located in the heart of Nashville, the capital of Tennessee. Known internationally as “Music City USA,” Nashville is also the home to professional sports teams, the Nashville Symphony, the Frist Center for the Visual Arts, and numerous activities for outdoor enthusiasts. Nashville, Tennessee is a wonderful place to live, work and raise a family.

Applicants should send a curriculum vitae, a statement of current and future research interests, and three letters of recommendation to: Eric Skaar, Ph.D., Director, Program in Microbial Pathogenesis, Department of Pathology, Microbiology and Immunology, Vanderbilt University School of Medicine, Room A-5102, Medical Center North, 1161 21st Ave. S., Nashville, TN 37232. Inquiries, applications, and recommendation letters can be directed via email to eric.skaar@vanderbilt.edu.

Vanderbilt University is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.
Associated Universities, Inc. invites nominations and applications for the position of Director of the National Radio Astronomy Observatory. AUI operates NRAO under a Cooperative Agreement with the National Science Foundation. AUI is a non-profit corporation founded in 1946 to operate scientific research facilities that serve universities and the public interest.

NRAO’s mission is to enable forefront research into the Universe at radio wavelengths. In partnership with the scientific community, the Observatory provides world leading telescopes, instrumentation and expertise, conducts research, helps train the next generation of scientists and engineers, and promotes astronomy to foster a more scientifically literate society.

NRAO operates or helps operate four major observing facilities. AUI/NRAO is the North American Executive for the transformational Atacama Large Millimeter/submillimeter Array (ALMA), being constructed in northern Chile and starting early science this year. The VLA, now the Expanded Very Large Array, in Socorro, New Mexico, has been the world’s leading radio synthesis array for the past thirty years; recent enhancements have increased the sensitivity and spectroscopic capabilities by one and two orders of magnitude, respectively. The Very Long Baseline Array, with stations at ten U.S. locations, and the Robert C. Byrd Green Bank Telescope in West Virginia, are world leading facilities operated by NRAO in collaboration with universities and observatories around the world. NRAO supports users of all these facilities via the North American ALMA Science Center in Charlottesville, the Array Science Center in Socorro, and Green Bank Science Operations in Green Bank. NRAO’s Coordinated Development Laboratory, collocated with NRAO headquarters in Charlottesville, Virginia, provides unique support for NRAO’s telescopes and for university groups around the country by developing and building new leading-edge technology and instrumentation.

The NRAO Director is responsible for leading and managing this large national enterprise in support of the entire astronomical community, helping sustain robust and effective scientific programs for the benefit of the nation, and overseeing outreach activities that extend benefits of the science to the broader public. The Director will manage the transition of NRAO’s major new facilities into routine operations over the next few years, and continue to advance NRAO itself as an observatory that continues to meet the scientific community’s, and the nation’s, needs in the next decade. The NRAO Director coordinates with North America’s partners in ALMA, including the Directors General of the National Astronomical Observatory of Japan and the European Southern Observatory, as well as with Canada’s Herzberg Institute of Astrophysics, and Taiwan’s Academia Sinica Institute of Astronomy and Astrophysics, and is expected to be a leading participant in formulating and executing national priorities for research in radio astronomy and in astronomy more broadly.

Candidates should be scientists of stature who understand fully current developments in world astronomy, and are recognized leaders with significant management experience. The search committee will begin considering applications this month and will accept applications until the position is filled. Inquiries, nominations, and applications should be sent to nraodirectorsearch@aui.edu or: Dr. Eugene H. Levy, Chair, NRAO Director Search Committee, Associated Universities, Inc., 1400 16th St., NW, Suite 730, Washington, DC 20036-2217.

AUI is an Equal Employment Opportunity/Affirmative Action Employer and values diversity in its workforce.

ScienceCareers.org is the forum that answers questions.
The Division of Intramural Research of the National Institute of Neurological Disorders and Stroke, NIH, is searching for outstanding clinician-investigators for tenure-track positions in the area of clinical/translational studies of neurological disorders including stroke. The Division of Intramural Research boasts active clinical research programs in stroke/traumatic brain injury, movement disorders, neuroimmunology/virology, neurogenetics, epilepsy, cortical plasticity relevant to neurological disorders and stroke, surgical neurology and neuroimaging. These programs operate in one of the largest and most active clinical research environments in the world, making use of the Clinical Center at NIH. They also interact with a large and active basic neuroscience community which has outstanding programs in ion channel biophysics, synaptic physiology, neural circuit function, cell biology, and developmental biology. We are particularly interested in people using modern genomic techniques, systems biology techniques, or advanced imaging techniques. The successful individual will be expected to develop and direct an independent research program focused on clinical or translational problems that relate to the major areas of interest in the intramural program. The successful candidate will also be expected to develop strong interactions with one of the active clinical/translational programs. The individual should have a demonstrated background and knowledge in research focused on diseases of the nervous system. Experience in application of clinical trial methodology to the study of disease mechanisms and testing new therapies is highly desirable. The candidate will have earned a M.D. or M.D./Ph.D. degree and will have excellent scientific skills in structuring an original and productive research program using outstanding communication and collaborative abilities. Preference will be given to individuals who have a medical license in the United States, who have completed training in an accredited training program in neurology, and are either board eligible or board certified. Outstanding candidates may be eligible for tenure if there is a demonstrated international reputation and well-documented evidence of ongoing independent accomplishments. An individual selected for a tenure-track position is expected to build a dynamic and productive research group. Laboratory/clinical facilities, shared research facilities, research funds and salary are competitive with premier academic institutions.

Applicants should send curriculum vitae, bibliography, statement of research interests, 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 20892-3716 or nindsclinicalsearch@ninds.nih.gov. Review of applications is expected to begin on November 30, 2011, but applications will be accepted until the position is filled.

HHS and NIH are Equal Opportunity Employers.
Two Tenure Track Faculty Positions in Nutrition
Department of Nutrition and Exercise Physiology

The Department of Nutrition and Exercise Physiology (NEP) has two open faculty positions at the level of assistant, associate or full professor although preference will be given at the assistant or associate level. The successful applicant will have a PhD in Nutrition or closely related discipline with postdoctoral research experience. At the assistant professor level, strong promise of obtaining and sustaining a nationally-funded research program is expected. For more senior levels, an established track record of external funding is expected. The NEP department is part of three units, College of Human Environmental Sciences, College of Agriculture Food and Natural Resources, and the School of Medicine. For one position, the tenure home will be in the School of Medicine. For the other position the tenure home will be in the College of Human Environmental Sciences. In the Fall of 2013 a newly renovated building will open including the MU Nutritional Center for Health (MUNCH) consisting of a research kitchen, a state-of-the-art teaching kitchen and observational behavior lab. In addition, new wet lab and human research facilities will be included. MUNCH will be located near the MU Child Development Lab and researchers with an interest in adult or childhood obesity are especially encouraged to apply. Successful applicants with research programs that utilize these facilities and involve campus-wide research initiatives relative to obesity, cardiovascular biology, exercise, metabolism, cell signaling and nutrition are desirable. Faculty are expected to contribute to undergraduate, graduate, and medical education in the department. Located midway between St. Louis and Kansas City, Columbia is a vibrant university town that is consistently ranked among the top small cities to live in America.

To apply for this position (job posting reference #5748), please visit the MU web site at [http://hrs.missouri.edu/find-a-job/academic/](http://hrs.missouri.edu/find-a-job/academic/). Please submit curriculum vitae, a narrative of research and educational interests, and the names and contact information of three references. For additional information about the position, please contact: Catherine Peterson, Ph.D., Chair, Nutrition Search Committee, Department of Nutrition and Exercise Physiology, School of Medicine/HES/CAFNR, 217 Gwynn Hall, University of Missouri-Columbia, Columbia, MO 65211; Petersonc@missouri.edu.

Active review of applications will begin October 1, 2011, and the search will continue until the position is filled.

The University of Missouri is very interested in promoting a diverse work environment and has programs in place to promote diversity on campus. The University of Missouri is an Equal Opportunity, Affirmative Action Employer, and complies with the guidelines set forth in the Americans with Disabilities Act of 1990. Visit the University of Missouri-Columbia’s website at [http://www.missouri.edu](http://www.missouri.edu). Please direct ADA accommodation requests to our coordinator at 573-884-7278 (V/TDD).

Read inspiring stories of women working in "Green Science" who are blending a unique combination of enthusiasm for science and concern for others to make the world a better place.

Download this free booklet
[ScienceCareers.org/LOrealWiS](http://ScienceCareers.org/LOrealWiS)

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The Georgia Institute of Technology is one of the top ranked educational/research institutions in the country and ranked as one of the best places to work. As part of significant growth in the biological sciences, the School of Biology is seeking applications for tenure-track positions in the following areas:

1) **Macromolecular Assemblies**, with a particular interest in experimental proteomics and interactomics, amyloids and prions, intracellular assemblies, or the molecular basis of cell aging and asymmetry (selected faculty will have an opportunity to join the Center for NanoMAG, [http://www.nanomag.gatech.edu](http://www.nanomag.gatech.edu));
2) **Developmental Molecular Biology**, broadly defined, with a focus on regenerative biology, epigenetics, cell-cell interaction, chemical signaling, chemical biology, and/or molecular evolution. Candidates will be favored whose research integrates well with the department’s existing strengths in molecular and cell biology, ecology and evolutionary biology, and computational biology ([www.biology.gatech.edu](http://www.biology.gatech.edu)). Georgia Tech has a strong interdisciplinary environment where collaborations between faculty in the biological sciences, engineering, and computing are encouraged.

It is anticipated that these positions will be filled at the assistant/associate professor level, but outstanding senior candidates with exceptional records are encouraged to apply. Candidates should forward a letter of application (indicating area as specified above), full curriculum vitae, statement of research interests and plans, and contact information for four references to [macro@biology.gatech.edu](mailto:macro@biology.gatech.edu) or [dev@biology.gatech.edu](mailto:dev@biology.gatech.edu), depending on the area. Review of applications begins September 30, 2011 and will continue until positions are filled.

*Georgia Tech is a unit of the University System of Georgia and an Affirmative Action/Equal Opportunity Employer and requires compliance with the Immigration Control Reform Act of 1986.*
FACULTY POSITIONS
SCRIPPS INSTITUTION OF OCEANOGRAPHY
UNIVERSITY OF CALIFORNIA, SAN DIEGO

Scripps Institution of Oceanography (SIO) at UC San Diego (http://sio.ucsd.edu/) is committed to academic excellence and diversity within the faculty, staff, and student body. SIO is a world renowned center of marine research with approximately 200 principal investigators leading research programs on all aspects of earth, ocean and atmospheric sciences.

Review of applications will begin on September 15, 2011 and will continue until the position is filled. Our very strong preference is for hiring at the level of assistant professor for all positions. All applications and related materials should be submitted electronically via Academic Personnel On-Line RECRUIT at: https://apol-recruit.ucsd.edu/. Applicants should send a letter including descriptions of their teaching experience, research interests, past experience and leadership in equity and diversity, a list of publications, immigration status, and the names of three potential referees, along with their complete institution address, email address, phone and fax numbers. Questions about submission of applications may be addressed to Leslie Costi, (lcosti@ucsd.edu). Salary will depend on the experience of the successful applicant and will be based on the UCSD pay scales.

Contributions to Diversity, Equity and Inclusion (RP #10-287): The department seeks candidates in all areas of the marine sciences including atmospheric sciences, biological oceanography, geochemistry, geology, geophysics, ocean engineering, physical oceanography, marine biology, and chemical biology, whose research, teaching, and service has prepared them to contribute to our commitment to diversity and inclusion in higher education. Applicants are asked to summarize their past or potential contributions to diversity in their personal statement. The primary consideration for this position will be strong demonstrated accomplishments in areas contributing to diversity, equity and inclusion, and a desire to play a leadership role in advancing UC San Diego’s commitment to achieving excellence and diversity.

The successful candidate will be expected to teach classes and supervise research at both the graduate and undergraduate level. The position requires a PhD degree and a competitive record of publication, as well as evidence of the ability to conduct and fund an active research program consistent with the opportunity to have done so at this career level. The successful candidate will also have demonstrated the highest standards of scholarship and professional activity, or for junior scholars to have the potential thereof.

Marine Natural Products Chemistry and Chemical Biology (RP #10-288): We invite applications to fill a faculty position in Marine Natural Products Chemistry and Chemical Biology. Specific areas of interest include the discovery and biotechnological applications of novel organic chemicals from marine microorganisms. We seek an individual that will innovate at the interface of earth, ocean and atmospheric sciences.

Ocean Sensing (RP #10-289): We invite applications to fill a faculty position in Physical Oceanography and Ocean Engineering. Specific areas of interest include the development of acoustic and/or electromagnetic sensor technology for observing the sea surface, interior, the interaction of the ocean with the coast or sea floor, and/or the development of innovative data analysis approaches and their subsequent use for conducting experimental work.

UCSD is an Affirmative Action/Equal Opportunity Employer with a strong institutional commitment to excellence through diversity.

ESTÉE LAUDER COMPANIES
BASIC SCIENCE RESEARCH DIRECTOR, ASIA.

Estee Lauder Companies, a global innovator in prestige skincare, is seeking an MD or PhD with focus on dermatology or related fields to manage its growing basic science research program in Asia, headquartered in Shanghai, China. The position includes directing basic and clinical research, collaborating with academic institutions, supporting product development, representing the company’s research to the Asian press, and communicating with and travel to the company’s research centers in Europe and New York. The candidate should have 5+ years working in basic or clinical research, preferably with time in the personal care industry. The candidate should have strong people management and networking skills, and excellent communication in English and Chinese. Estee Lauder provides a generous and competitive compensation package.

Please submit a cover letter summarizing goals and qualifications together with resume to Ms. Jing Cheng, jcheng@cn.estee.com.

Technical University of Denmark

SENIOR RESEARCHER AND POSTDOC POSITION
Bioinformatics and Systems Biology

DTU Systems Biology, The Cellular Signal Integration Group at the Center for Biological Sequence Analysis invites applications for the following positions:

• Senior Researcher in Bioinformatics and Computational Biology
• International Postdoc in Systems Biology: “Network Medicine Approach to Cancer Progression”

Application deadline: 12 September 2011

DTU is a leading technical university rooted in Denmark but international in scope and standard. Our total staff of 5,000 is dedicated to create value and to promote welfare for the benefit of society through science and technology, and our 7,000 students are being trained to address the technological challenges of the future. While safeguarding academic freedom and scientific independence we collaborate with business, industry, government, public agencies as well as other universities around the world.

Further details: dtu.dk/career
An exceptional career requires insightful planning and management. That’s where *Science* Careers comes in. From job search to career enhancement, *Science* Careers has the tools and resources to help you achieve your goals. Get yourself on the right track today and get a real career plan that works. Visit *ScienceCareers.org*. 
The sixth meeting on

Chromatin Structure & Function

December 5-8, 2011 | Radisson Resort, Aruba

INVITED SPEAKERS:
Karen Adelman | Genevieve Almouzni | Shelley Berger | Emily Bernstein | Amanda Fisher |
Tony Kouzarides | Lee Kraus | Rob Maitienssen | John Mattick | Wolf Reik | Danny Reinberg |
John Rinn | Yang Shi | Ramin Shiekhattar | Ali Shilatifard |

ORGANIZERS:
Tony Kouzarides and Abcam

DEADLINES:
• Early bird: September 9, 2011
• Oral abstract: September 9, 2011
• Poster abstract: October 14, 2011

MEETING WEBSITE:
www.abcam.com/chromatin2011

THE JAK-STAT PATHWAY: 20 YEARS FROM DISCOVERY TO DRUGS

September 22 – September 24, 2011 · National Institutes of Health (NIH) campus, Bethesda, MD

Celebrating the 20th year of Jak-STAT research, highlighting recent basic developments in the field, relevance to disease and new therapeutics

ORGANIZERS
John O’Shea · NIH/NIAMS
James Darnell · Rockefeller University
Richard Jove · City of Hope
David Levy · NYU
Warren Leonard · NIH/NHLBI
Lothar Hennighausen · NIH/ NIDDK

INVITED SPEAKERS
• Christopher Garcia · Stanford University
• James Clark · Pfizer
• Anthony Green · Cambridge Institute for Biomedical Research
• Jordan Fridman · Incyte
• Louis Staudt · NIH/NCI
• George Stark · Lerner Institute
• Andrew Lerner · Medical College of Virginia
• Nadya Tarasova · NIH/NCI
• Mark Kaplan · University of Indiana
• Yuka Kanno · NIH/NIAMS
• Riitta Lahesmaa · Turku Center
• Christine Watson · Cambridge University
• Wen-Yi Li · UCSD
• Robert Schreiber · Washington University
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• Valeria Poli · University of Turin
• Jean-Laurent Casanova · Rockefeller University
• Steve Holland · NIH/NIAID
• Christine Biron · Brown University
• Curt Horvath · Northwestern University
• Manfred Boehm · NIH/NHLBI
• Isabelle Dusanter-Fourt · Institut Cochin

SCIENTIFIC TOPICS
Jaks & Jak Inhibitors
Jaks & Cancer
Biology & Structure of STATS
STATs in Immunoregulation
STATs in Development
STATs & Cancer
STATs & Infectious Disease

Registration is required for this meeting. Please visit www.niams.nih.gov/Research/JAKSTAT2011.asp for registration and further information.
### POSITIONS OPEN

**DIRECTOR**
Office of Vaccines Research and Review
Department of Health and Human Services
Food and Drug Administration
Center for Biologics Evaluation & Research

The FDA’s Center for Biologics Evaluation and Research (CBER), is searching for a Director for the Office of Vaccines Research and Review (OVRR). The Director of OVRR leads a dynamic organization of highly skilled regulatory reviewers and laboratory-based review scientists and support personnel committed to improving access to vaccines and related products through the development of sound science-based policy, effective regulatory processes and application of quality management principles. Preferred candidates possess specialized knowledge and experience in the development and management of biological programs as these pertain to evaluating the safety, efficacy, and public health significance of vaccines or allergenic biological products.

Qualifications: Eligible individuals must be U.S. citizens. Candidates with an M.D. and/or Ph.D. with relevant training and extensive experience are highly desired. All candidates must possess specialized knowledge and experience in the regulation and development of biological products, including the evaluation of safety, effectiveness, and product quality; extensive experience and knowledge of the FDA’s regulatory and review processes; strong leadership and preferred executive management experience; excellent interpersonal skills to deal effectively with multidisciplinary teams and diverse stakeholders; and outstanding oral and written communication skills.

Physician candidates must possess a valid license to practice medicine in any state in the U.S. NOTE: Graduates of foreign medical schools must submit a copy of their ECFMG certificate. This position may also be filled by appointment in the U.S. Public Health Service, Commissioned Corps. Candidates may also be eligible for an excepted service Title 42 appointment.

Salary: Salary is commensurate with education and experience. An excellent benefits package is also available. Location: Rockville, Maryland. How to Apply: Submit resume or curriculum vitae with cover letter by October 31, 2011 to e-mail: cber.employment@fda.hhs.gov. Please reference Job Code: Director-OVRR.

The Department of Health and Human Services is an Equal Opportunity Employer with a smoke free environment.

### ASSISTANT PROFESSOR, TENURE-TRACK

**FACULTY POSITION in Inorganic Chemistry**
University of California, Irvine

The Department of Chemistry at the University of California, Irvine invites applications from outstanding individuals for a tenure-track position at the ASSISTANT PROFESSOR level in the field of inorganic chemistry. Candidates must have a Ph.D. in chemistry or a related field; postdoctoral experience is desirable. The position requires both the establishment of a vigorous research program and a strong commitment to teaching at the undergraduate and graduate levels. Applications must be submitted electronically via the Internet at website: https://recruit.ap.uci.edu. Applicants should upload a cover letter, curriculum vitae (including publication list), and a concise statement of research plans. At least three letters of recommendation will be required. Applications and supporting materials should be received by October 15, 2011 for full consideration. The University of California, Irvine is an Equal Opportunity/Affirmative Action Employer and encourages applications from all qualified candidates, including women and minorities. The University of California, Irvine has an active ADVANCE Gender Equity Program.

### ASSISTANT PROFESSOR, TENURE-TRACK

**FACULTY POSITION in Pharmacology**
The Medical University of South Carolina seeks to recruit an outstanding scientist as part of a newly awarded Center of Biomedical Research Excellence grant in Redox Regulation and Signaling. Candidates must have a Ph.D. and must have a focused interest in this discipline but not have received RO1 support. A generous startup package will provide the basis for establishing an independent research program in any relevant disease area.

Located on the Atlantic coast in South Carolina, Charleston boasts one of the nation’s most historic downtown areas, beaches and other outdoor recreational resources, and international cultural events such as the Spoleto Festival USA.

Interested candidates should submit their curriculum vitae, a summary of future research plans, and names of three references to:

- Kenneth D. Tew, Ph.D., D.Sc.
- John C. West Professor of Cancer Research and Chair
- Department of Cell and Molecular Pharmacology
- Medical University of South Carolina
- 173 Ashley Avenue
- Charleston, SC 29425

Also accepted by e-mail: tewk@musc.edu

MUSC is an Equal Opportunity Employer supporting workplace diversity.

FACULTY POSITION in IMMUNOLOGY
Boston University School of Medicine

The Department of Microbiology (website: http://www.bumc.bu.edu/microbiology) is seeking outstanding investigators with an innovative record in research (and teaching) in an immunology faculty position(s). Applications in all areas of immunology will be considered, but investigators with expertise in the immunology of infectious diseases are especially encouraged to apply. Candidates appropriate for any faculty level position will be considered.

Interested individuals should submit their curriculum vitae, summary of research accomplishments, future research plans, and the names of at least three references to e-mail: kfurness@bu.edu. Applications will be considered as they are received, with the position being filled any time after January 1, 2012.

Boston University School of Medicine is an Equal Opportunity/Affirmative Action Employer.