Across Europe, budgets are tight. But investing in research and development drives economic growth, say scientific advisers. Our knowledge is a resource, they say, and countries with high research spending—Germany and Scandinavian countries such as Sweden—have high GDP growth. European Union politicians are getting the message as they plan Horizon 2020, a €90 billion program to fund European research in 2014–2020. In the meantime, educational and research institutions are preparing for science in an uncertain economy with practical training, applicable results, and networking to join forces with local and global partners. By Chris Tachibana

Il we hear about Europe is gloom and doom and the global economic crisis,” says Anne Glover, “but we have a fantastic raw resource—our knowledge—so why not talk about that?” In January 2012, Glover became Europe’s first chief scientific adviser, a job she previously held for her home country of Scotland. Now, she advises European Commission President José Manuel Barroso on scientific topics from global health to climate change.

Glover’s message to European policymakers is that Europe’s talent in science, engineering, and technology could boost the economy of the entire region—and she’s confident her message is getting through. “Two things that might gladden hearts of young scientists are that in this economic environment, the president of the European Commission appointed a chief scientific adviser, so he regards science as crucial for the future of Europe. Also, even with fiscal constraint in other areas, the proposed budget for Horizon 2020 is a substantial increase from the previous program.”

PLANNING FOR 2020

Horizon 2020 is the next European Union (EU) research funding program, running from 2014 to 2020 and taking over from FP7 (Framework Programme 7). Horizon 2020 is still under discussion by the EU governing bodies, so the proposed budget of nearly €90 billion is still uncertain. However, scientists are “reasonably optimistic” about the ongoing negotiations, says Peter Tindemans, secretary general of Euroscience, a nonprofit organization that supports and promotes science, similar to the American Association for the Advancement of Science. So far, the funding seems secure.

FP7 funding was under themes such as health, transport, and space. Horizon 2020 organizes activities under three priorities, or pillars: excellent science, competitive industries, and a better society. Don’t worry, these changes are largely organizational, say those who are following the development of Horizon 2020. Scientists familiar with FP7 should be able to find opportunities in the new program.

Information and communication technology are priorities in Horizon 2020 under the excellent science and competitive industries pillars. An example is the Future and Emerging Technologies program that funds exploratory research and high-risk proposals. A related field to watch, says Tindemans, is data-driven science. This is emerging as a new scientific discipline as fields such as systems biology generate large amounts of data, driving a demand for facilities and methods for storing, managing, and analyzing large datasets.

Horizon 2020 includes initiatives to promote small and medium-sized enterprises, and public-private partnerships, and applicants will need to describe their potential return on investment. However, this is not new—EU funding programs have long encouraged collaborations between research institutions and industry. continued>
Focus on Europe

Tindemans says that policymakers and industry leaders continue to feel that basic research is a priority. Successful public-private partnerships work at the interface of basic and applied research, he says, with enough room for both types of science.

Professor Elena Cattaneo, School of Pharmacy, University of Milan, agrees but says that academic scientists are feeling a lot of pressure to do translational research, especially in her field of stem cell research. She urges caution, saying “There is nothing worse than clinical trials done too early.” Cattaneo hopes funding agencies will remember that science is also about exploring the unknown. “How can we promise we will cure something without knowing precisely how tissue and cells work and how they are affected by a disease? We need the two elements of research—basic and translational—to work tightly together. Otherwise it is like asking to go from here to the moon without acknowledging that in many cases we do not even know where the moon is.”

ACTING LOCALLY

Many countries are looking for the balance between applied and basic science in their own research and training programs. In these uncertain economic times, practicality is often the strategy, with an emphasis on knowledge and technology transfer, job training, and public-private partnerships.

Practical training and industrial partnerships are actually long-term U.K. initiatives, says Iain Cameron, head of research careers for Research Councils UK (RCUK). For example, the country has an engineering Doctorate that is equivalent to a Ph.D. but with training that aligns with business practices. Rather than focusing on a single project, students conduct a series of smaller projects while spending time working in industry.

Cameron says that a specific area of emphasis in the past 10 years has been “training researchers to be aware of the transferable skills they have so they can be prepared for jobs outside of academia.” He notes that 50 percent of Ph.D. students in the United Kingdom find work outside of universities, so “we want researchers to think about who will use the research they are doing, and what they will make of it.” Thinking about the two-way transfer of knowledge and people that occurs between the research base and industry is a culture change in the educational system, says Cameron. RCUK is now studying the effects of the emphasis on practical training, for example tracking Ph.D. students to see if it helps them be more immediately effective in their jobs.

“We must maintain R&D and science education funding, or we’ll waste investments over the last decade in infrastructure improvements and efforts to make research careers attractive to young scientists.”

—Marja Makarow

The United Kingdom, like several other European countries, is imposing strict austerity measures in response to the economic crisis. The RCUK budget is frozen at 2010 levels (about £2.5 billion annually) through 2015. Although this means budget reductions of about nine percent over four years, Cameron says that funding is still available for all research areas. That’s good, says Marja Makarow, because this is a critical time for countries to continue research funding. Makarow, who was chief executive of the European Science Foundation through 2011 and is now vice president of the Academy of Finland (the Finnish Research Council), says we should remember that only five to seven percent of total European research funding is from the European Commission, with most support coming from individual countries. We must maintain R&D and science education funding, warns Makarow, or we’ll waste investments over the last decade in infrastructure improvements and efforts to make research careers attractive to young scientists. “If we miss this opportunity,” says Makarow, “we’ll miss out on the next generation of researchers.”

As we train young scientists to think about the future applications of their work, we also need to train them in knowledge and technology transfer that is smart, deliberate, and effective.

This is the realm of Guy A. Boy, director of the Human Centered Design Institute of the Florida Institute of Technology, fellow of the Air and Space Academy in Toulouse, France, and author of the book Orchestrating Human-Centered Design. “We live in a very short-term-oriented society,” says Boy. “Everything has to be effective now.” However, fast and cheap rarely succeeds, especially in introducing research results into society, says Boy, who advocates for STEAM education—science, technology, engineering, and math—with art and creativity. Boy calls for a mature approach to introducing new inventions and technologies that considers the impact on society’s practices and organizations. Human-centered design can ease the introduction of a new technology or policy, making it acceptable to the public. This approach requires input from the humanities and the arts, and in fact, Horizon 2020 includes funding and opportunities to integrate the humanities and arts into research activities.

LOOKING GLOBALLY

In addition to focusing on technology development and applications, European countries and universities are increasingly seeking to globalize. Spinning an international web with far-flung anchor points can support research by diversifying funding sources, continued>
challenges love solutions

We think there's a solution for every problem. That's why BASF researchers from all disciplines always work on innovations with passion. Help us, in a modern environment, to find not just products but comprehensive solutions for tomorrow's challenges. That's how we create chemistry. At BASF. Find out more now and apply at: www.basf.com/career
We proudly announce the foundation of the **German Centre for Integrative Biodiversity Research (iDiv)** which aims to become a world-class research centre in this emerging field. Its central mission is to promote **theory-driven experiments and synthesis and data-driven theory**. The concept of iDiv encompasses the detection of biodiversity, understanding its emergence, exploring its consequences for ecosystem functions and services, and developing strategies to safeguard biodiversity under global change.

iDiv is a **National Research Centre** funded by the German Research Foundation (DFG). It is located in the city of Leipzig and jointly hosted by the Friedrich Schiller University Jena (FSU), the Martin Luther University Halle-Wittenberg (MLU), the University of Leipzig (UL) and the Helmholtz Centre for Environmental Research – UFZ. It is supported by the Leibniz Association, the Max Planck Society, the Klaus Tschira Foundation and the Free State of Saxony. Under one roof, 85 scientists and 45 support staff will collaborate in a highly integrated environment and benefit from central services (IT, eco- and bioinformatics, mechanics workshop, greenhouses).

The iDiv founders form a **consortium** of internationally renowned labs covering many aspects of biodiversity sciences and leading or co-leading several large-scale biodiversity experiments (e.g. Jena Experiment, BEF-China project, German Biodiversity Exploratories). The UFZ is currently establishing two new platforms: the **Global Change Experimental Facility (GCEF)** on 4 ha and a mesocosm electron facility. iDiv founders have initiated biodiversity databases of global relevance and host important biodiversity collections. Several groups work in the field of ecological theory and modeling.

As a unique feature, a **Synthesis Centre for Biodiversity Sciences (sDiv)** is integrated in the research environment of iDiv and offers international workshops, postdoc positions, and a sabbatical program to foster theory and synthesis. The **young biodiversity research training group (yDiv)** creates a new generation of biodiversity scientists with a solid theoretical background combined with diverse experimental and computational skills.

The alliance of the three universities (FSU, MLU, UL) and the UFZ invites applications for eight full professor positions (salary W3):

**A professorship in “Theory in Biodiversity Sciences”**

will develop comprehensive theories on the emergence and functional role of biodiversity using a synthetic and data-oriented approach (affiliated with FSU).

**A professorship in “Experimental Interaction Ecology”**

will analyze the role of trophic diversity and the linkage of below and aboveground interaction networks for ecosystem functions under climate change (affiliated with UL).

**A professorship in “Molecular Interaction Ecology”**

will use “omic” approaches to characterize structural and functional diversity in terrestrial or aquatic interaction networks (affiliated with FSU).

**A professorship in “Evolution and Adaptation”**

will address accelerated evolution and adaptation in host-pathogen systems and invasive species as well as community evolution under climate change (affiliated with UL).

**A professorship in “Physiological Diversity”**

will explore the physiological dimension of fundamental functional trade-offs across the plant kingdom using up-to-date analytical methods (affiliated with MLU).

**A professorship in “Biodiversity Conservation”**

with strong roots in both theoretical and empirical ecology and/or conservation genetics will translate modern biodiversity research into novel conservation concepts (affiliated with MLU).

**A professorship in “Ecosystem Services”**

will assimilate and analyze experimental and field data to link biodiversity patterns with ecosystem services at different scales (affiliated with FSU).

**A professorship in “Biodiversity Synthesis”**

will analyze large-scale datasets of biodiversity, ecosystem processes, environmental drivers and land-use as well as data from complex local experiments to test biodiversity theory using advanced computational methods (affiliated with MLU).

**WHAT WE OFFER**

The iDiv research centre is located on the BIO CITY campus (http://biocity-leipzig.de) in Leipzig, a city known for its rich culture, excellent schools, and beautiful surroundings. Substantial funds for new personnel as well as start up grants for equipment are provided. Teaching will be at the affiliating university.

**APPLICATION**

We promote a research environment free of gender bias. Severely disabled persons are encouraged to apply and are preferred in the case of equal suitability. Applicants have an outstanding record in publications and third-party funding, experience in project coordination, and a successful teaching record. All iDiv groups are engaged in cross-disciplinary communication and outreach. Applications are in English with a detailed CV, certificates, complete publication list, description of teaching experience and successful grant applications. The cover letter summarizes past achievements, explains motivation to join iDiv and describes planned research and concepts of cooperation. Further information is given on www.idiv-biodiversity.de.

Applications should be sent before **November 30, 2012** in printed and electronic form (as a single pdf file). A detailed description of each professorship and the respective application address can be found under www.idiv-biodiversity.de.

Please note that although the deadline for these positions has been extended, this is not a new posting and applications already submitted will be considered and do not need to be resubmitted.
Research is still your favorite?

MAKE GREAT THINGS HAPPEN

Opportunities for research scientists and professionals: You have always strived to sustainably improve the patients’ lives. Welcome to Merck. Contribute to exciting research projects in one of our high-growth therapeutic areas – cancer, neurodegenerative as well as autoimmune and inflammatory diseases, infertility and hormone disorders. We offer excellent development perspectives and exceptionally quick decision-making processes you will only find in mid-sized companies like ourselves. Join us and take part in shaping our diversified bio pharma business. Ready to tread new paths?

come2merck.com
“In our world, in the 21st century, scientists are inventing the future. Why not be part of that?”

—Anne Glover

Growing collaborations and business opportunities, and tapping into the global talent pool.

The Freie Universität Berlin has relied on international partnerships since its founding after World War II as an educational institution committed to being free of Soviet political influence. The global perspective has continued throughout the university’s history. For universities seeking international research collaborations, President Peter-André Alt advises that these types of partnerships are most successful when the universities are matched in their fields of strength, size of faculty, and number of students.

In contrast, study abroad exchanges can focus on complementary, rather than shared strengths, says Alt. For example, Freie Universität Berlin has student exchanges with emerging countries such as Egypt. The university’s first exchange students went to Stanford in 1949 and now roughly half of all Freie Universität Berlin undergraduates participate in a study abroad. Universities should encourage this by being flexible in accepting credit for coursework done abroad, says Alt. He hopes that U.S. universities in particular will encourage European partnerships and study abroad programs, noting that the current U.S. focus on Asia is causing his university to work more with Canada, which tends to be more focused on Europe.

Effective globalization relies on creating a solid network and knowing how to use it. Angie Bukley is dean and vice president for academic affairs at the International Space University (ISU) in Strasbourg, France. She has experience in the academic and corporate worlds, a job that spans multiple countries, and 500+ LinkedIn connections. Although ISU combines space and education—two areas that are prime targets for financial austerity advocates—75 percent of ISU graduates successfully find jobs in their field. Contacts are the secret, says Bukley. “ISU has more than 3,300 graduates in over 100 countries, many in high-level management positions, so we really leverage that network to help students find internships and jobs.”

Bukley takes the long view and has no qualms about promoting space science and engineering careers. “I’ve been around for a while and seen the economy go up and down,” she says. “Humans are meant to explore so we will always find a way to do that.” In promoting its programs, ISU can play the technology transfer card, pointing to civilian applications such as weather graphics, remote sensing, and global satellite positioning that have come from government and military research including space science. Bukley is optimistic about the future of European research. Having worked in both the United States and the EU, she says that although the EU is extremely slow in making decisions, once they decide to fund something, “it’s pretty solid,” unlike funding in the United States, which can involve ongoing negotiations, contingencies, and post-award cuts.

MOVING EAST

To make international exchanges easier, many universities are establishing a physical presence in another country, particularly in Asia. Germany’s Max Planck Society has several international partner institutes and centers, including in Shanghai. In 2010, the eight Danish universities and the Graduate University of the Chinese Academy of Sciences created the Sino-Danish Center for Education and Research near Beijing. Work has begun on a new building for the center, which has a goal of 100 researchers, 100 Ph.D. students, and 300 Master’s students by the end of 2013. European and Chinese students gain research experience on collaborative projects and take classes together in English, led by Danish and Chinese professors. Currently, students can earn a Master’s degree in Neuroscience and Neuroimaging, Water and Environment, Innovation Management, and Public Management and Social Development, with additional Master’s programs in Nanoscience and Nanotechnology, Chemical and Biochemical Engineering, and ‘omics starting in 2013.

“Personally, I think it’s a great opportunity for students,” says Hans Gregersen, executive director of the Sino-Danish Center. “They’ll get a degree with Danish and Chinese accreditation and multicultural experience. We hope they’ll learn the language. About 500 Danish companies are active in China, and we think these and other companies will want to employ our students after they graduate.”

Another institution reaching out to the East is ETH...
Assistant Professor of Translational Cancer Science
Swiss Institute for Experimental Cancer Research (ISREC) at Ecole polytechnique fédérale de Lausanne (EPFL)

We seek to appoint a tenure track assistant professor to develop an innovative research program studying mechanisms of cancer, with a strategic goal to apply unfolding knowledge to better detect, evaluate, and treat human cancers. The successful candidate will join the faculty of ISREC [http://isrec.epfl.ch], one of the four institutes of the School of Life Sciences at EPFL, the Swiss Federal Institute of Technology Lausanne [http://sv.epfl.ch]. ISREC is based on the shore of Lake Geneva amidst the EPFL campus and its interactive faculty in life sciences, chemistry and physics, computer science, and engineering. ISREC plans to establish a translational cancer research branch proximal to the new Department of Oncology at the University of Lausanne (UNIL), located at its teaching hospital and biomedical research campus (CHUV), positioned to nucleate substantive collaborations with clinical investigators. The successful candidate will participate in a new multi-institutional cancer center – the Swiss Cancer Center Lausanne – involving CHUV, UNIL, and EPFL. Lausanne is centrally located in Europe [http://www.lausanne.ch] amidst a vibrant academic and biopharmaceutical research community spanning from Geneva to Montreux [http://www.bioalps.org] and more broadly to Basel and Zurich.

We are particularly interested in candidates whose research will integrate basic and translational approaches, in areas including: tumor immunology & immunoengineering (e.g. novel strategies for manipulating anti-tumor immunity); functions and regulation of the tumor microenvironment; inflammation & cancer; mechanisms of disease in specific tumor types (e.g. melanoma, brain, gastrointestinal); tumor metabolomics & energetics; cancer stem cells; and systems approaches to cancer genetics and epigenetics.

ISREC faculty members receive generous core support (salary and research funds) with the expectation that their research programs will be similarly complemented by extramural grant support. Participation in undergraduate and graduate teaching is required. ISREC and the School of Life Sciences have an excellent infrastructure, including a number of technology core facilities [http://sv.epfl.ch/platforms]

Competitive applicants for appointment are envisioned to have an exceptional track record of accomplishment, with evident future potential and commitment to translational/applied cancer research, and teaching. Candidates are requested to submit via the website below, in separate PDF files, a curriculum vitae with a list of three-five mentors who can provide letters of recommendation, a list of publications (annotated to indicate the candidate’s contributions), a brief statement of teaching interests and experience, and a 2–3 page research synopsis that both summarizes current/past research accomplishments and presents a strategic vision for development of the candidate’s research program in the next 5–10 years.

Applications should be uploaded at [http://isrec-search.epfl.ch]

The application deadline is January 7, 2013, after which there is no guarantee of consideration.

Inquiries may be addressed to:

Professor Douglas Hanahan,
Director, ISREC
School of Life Sciences
EPFL
CH-1015 Lausanne, Switzerland
Email: dh@epfl.ch

EPFL is committed to expanding the ranks of women on its faculty, and qualified women are strongly encouraged to apply.
Focus on Europe

Zurich, a public Swiss science and technology university, ETH Zurich has had international engagements before, including outreach to China in the 1980s, but marked a new era with ETH Global, a center for international exchange and interdisciplinary projects. The ETH Global perspective is that developing countries are an opportunity and a growing market for smart, clean development. Europe can provide the methods and means for this development, from sustainable city planning and high-precision machinery such as tunnel-boring machines, to personal items such as pharmaceuticals. ETH has decided this strategy requires being on site in regions such as Africa, South America, and Asia.

This is what brought Professor Gerhard Schmitt, ETH Zurich chair of information architecture and senior vice president, ETH Global, to Singapore. He is establishing the Singapore-ETH Center (SEC) for global environmental sustainability, currently with 140 faculty and students, funded by both ETH Zurich and the National Research Foundation of Singapore. Long-term goals are attracting the best students and faculty, while training them for international success. “Our first goal is top-quality research and education,” says Schmitt, “but we also want to make people around the world more aware of ETH and recruit from the global pool. Intelligence and talent are distributed worldwide, so it doesn’t make sense to exclude anyone.” The first program of the SEC is the Future Cities Laboratory (FCL). With 31 nationalities in the program, FCL embodies the goals of ETH Global and the charrette approach to science. FCL is a non-traditional, nonsiloed research degree program, in which sociology, physics, architecture, engineering, and simulations contribute to a project, for example in transportation systems.

From its global efforts, ETH hopes to harvest novel education models, cultivate international collaborations, and broaden the institute’s knowledge base. Even sabbaticals are a potential resource. Both faculty and academic staff have sabbatical leave opportunities, and are primed before they go to watch for institutional innovations that might improve ETH, and debriefed on their observations when they return. Schmitt says ETH has its own internal LinkedIn-type system: a database of international connections “so the ETH community knows who of our colleagues is interacting with whom around the globe and can connect to them.”

INVENTING THE FUTURE

European countries and the EU are hoping that investment in R&D will drive economic growth. This is creating a world of opportunities for young scientists. The trend in globalization expands educational and job possibilities. “We’re moving from a linear, local world to a world that is nonlinear and global,” says Boy. His advice is to embrace the complexity and connectivity. Incorporate technology, arts, a variety of people and organizations into your work, and take advantage of the symbiosis.

Get connected to the world early, says Freie Universität Berlin President Peter-Andre Alt. “Study abroad is a great experience. It’s helpful for communication, learning a different culture and system, and maybe also finding your own way.” With companies, universities, and research institutions stressing globalization, it’s also an experience that could pay off in the job market. Keep this in mind during your training, says RCUK’s Iain Cameron. Think about implications, applications, and dissemination of your research. “Know the research environment and know your skills. Think about how to communicate what you can to people in other disciplines, in industry, and internationally.”

Finally, keep your eyes on the horizon. To young people considering a career in science, Europe’s Chief Science Advisor Anne Glover says when you face challenges, remember the rewards of struggling with a concept then celebrating when you figure something out or make a discovery. “In our world, in the 21st century, scientists are inventing the future, says Glover. “Why not be part of that?”

Chris Tachibana is a science writer based in Seattle, USA, and Copenhagen, Denmark.

DOI: 10.1126/science.opms.r1200126
CALL FOR PhD STUDENTS

The Graduate School at IST Austria invites applicants from all countries to its PhD program. IST Austria is a new institution located on the outskirts of Vienna dedicated to cutting-edge basic research in the natural sciences and related disciplines. The language at the Institute and the Graduate School is English.

The PhD program combines advanced coursework and research, with a focus on Biology, Computer Science, Mathematics, Physics, Neuroscience, and interdisciplinary areas. IST Austria offers internationally competitive PhD salaries supporting 4–5 years of study. Applicants must hold either a BS or MS degree or equivalent.

The Institute offers PhD students positions in the following fields:
Biology | Computer Science | Mathematics | Physics | Neuroscience

For a list of faculty members please visit www.ist.ac.at. For further information and access to the online application please consult www.ist.ac.at/gradschool. For inquiries, please contact gradschool@ist.ac.at. For students wishing to enter the program in the fall of 2013, the deadline for applications is January 15, 2013. IST Austria is committed to Equality and Diversity.

Group Leader(s)
The Wellcome Trust/Cancer Research UK Gurdon Institute, University of Cambridge
Salary to £52,706 (plus start-up package)

The Gurdon Institute is a world-renowned centre in the fields of developmental, cell, and cancer biology, located in the heart of the historic city of Cambridge, and part of the University’s School of Biological Sciences. Founded in 1991, its purpose is to provide the best possible environment for research, and to foster interactions and collaborations between scientists with diverse but complementary interests. It is generously supported by core funding from the Wellcome Trust and Cancer Research UK, and benefits from state-of-the art facilities in a friendly, modern, purpose-built environment (see www.gurdon.cam.ac.uk).

We are now seeking to recruit one or more new Group Leaders and are particularly interested in applicants with fewer than seven years postdoctoral experience. This would be an ideal position for a scientist wishing to take up his or her first position as an independent researcher, and offers a world-class platform for career development. Informal enquiries are invited and can be directed to any of the Institute’s Group Leaders.

Applicants should send a full Curriculum Vitae and a brief outline of research interests as a single PDF file, as well as a University application form (CHRIS/6 - available from http://www.admin.cam.ac.uk/offices/hr/forms/chr6/) to gldsearch@gurdon.cam.ac.uk or to the Administration Secretary at the Wellcome Trust/Cancer Research UK Gurdon Institute, Tennis Court Road, Cambridge CB2 1QR, UK.Tel: +44 1223 334133, Fax: +44 1223 334134. Applicants should also arrange for three letters of reference to be sent to the same email or mailing address. Closing date for applications: 15th December 2012.
UNIVERSITÄT BASEL

Professor in Molecular Stem Cell Biology

The Biozentrum of the University of Basel (Switzerland) invites applications for a Professorship in Molecular Stem Cell Biology at the rank of Assistant (tenure-track), Associate or Full Professor, depending on the qualifications of the applicant.

We are seeking outstanding candidates in basic molecular and cellular stem cell biology. Areas of research interests include, but are not limited to, stem cell-niche interactions, programming/reprogramming, differentiation/dedifferentiation and asymmetric cell division.

The ideal candidate should establish an internationally competitive research program, will complement currently existing strengths of the Biozentrum and will contribute to the Basel Stem Cell network. The successful candidate is expected to actively participate in teaching at the undergraduate and postgraduate level.

The Biozentrum offers an outstanding scientific environment and an attractive research endowment. Basel is the home of a vibrant international life science community and provides a high standard of living and a superb cultural atmosphere.

Applications, including CV, list of publications and a research program summary, should be sent by e-mail (pdf or zip) to Prof. Dr. Jörg Schibler, Dean, Faculty of Science, University of Basel, Klingelbergstrasse 50, 4056 Basel, Switzerland, to dekanat-phlatin@unibas.ch. For informal inquiries please contact Prof. Dr. Erich A. Nigg (erich.nigg@unibas.ch, phone: +41-61-267 16 56).

The deadline for receipt of applications is December 31, 2012. The University of Basel is an equal opportunity employer and encourages applications from female candidates.

---

Calling all early stage career scientists!
Deadline for submissions for 2013: 15 December 2012

Win £2000 (GBP) and have your work highlighted in New Phytologist, one of the world’s leading plant science journals (2011 Impact Factor 6.645).

- The New Phytologist Tansley Medal is awarded annually in recognition of an outstanding contribution to research in plant science
- This is a global competition open to all plant scientists in the early stages of their career and includes both student and post-doctoral researchers with up to five years’ experience, excluding career breaks, since gaining/defending their PhD
- Selection is based on a two-stage process:
  - Stage 1) Submit your CV, a personal statement and reference: Deadline: 15 December 2012
  - Stage 2) Submission of a single-authored minireview intended for publication: Deadline: 31 March 2013
- All competition articles that are accepted after peer review will be published in New Phytologist and the Tansley medal winner selected by the judges from these final papers

New Phytologist
Full details, terms and conditions at: www.newphytologist.org

---

bioSS
CENTRE FOR BIOLOGICAL SIGNALLING STUDIES

The University of Freiburg (Germany) is accepting applications for the faculty position of a

Full Professorship (W3) for Pharmaceutical Technology and Biopharmacy

This chair is established by the Excellence Cluster of the University Freiburg: BIOSS Centre for Biological Signalling Studies (www.bioSs.uni-freiburg.de) at the Institute of Pharmaceutical Sciences. We seek a visionary scientist with strong research credentials in “Molecular dynamics and engineering of membrane systems” or similar areas. Close cooperation within the BIOSS program and projects in pharmacy, biology or medicine are expected. Experience in teaching pharmaceutical technology and in acquisition of research grants is required.

Deadline for applications is 15.12.2012. Applications including necessary supporting documents should be sent (exclusively in electronic form; email: kontakt@bioSs.uni-freiburg.de) to: Dekan der Fakultät für Chemie, Pharmazie und Geowissenschaften, Hebelstraße 27, D-79104 Freiburg.

The University of Freiburg is an equal opportunity employer. Applications of women are strongly encouraged. Handicapped candidates with equivalent qualifications will be given preference. Applicants should ask for an application form for professorship at the Deans office.
Call for Candidates to a chair in Integrative Biology of Infection

The Institut Pasteur announces an international call for a Chair of “Infection Systems Biology” on its Paris campus. The position is open for an outstanding candidate who wishes to develop a cutting-edge research program on microbial pathogenesis (caused by virus, bacteria, fungi or protozoan parasites) with a strong focus/interest on systems-level proteomic approaches on any aspect of infection biology.

The Chair holder will join the Laboratory of Excellence (LabEx) program called, “Integrative Biology of Emerging Infectious Diseases” (IBEID: http://www.pasteur.fr/labex/ibeid) and will benefit from the cutting edge interdisciplinary environment provided by the Institut Pasteur in Paris and by the LabEx.

The Chair will also benefit from the technical and scientific expertise of the Institut Pasteur proteomics core facility. He/she will have access to state-of-the-art equipment in mass spectrometry (last generation orbitraps equipped with ETD, MALDI-TOF/TOF, triple quadrupole) and separation techniques (nanoLC, UPLC, 2D gel electrophoresis) allowing high throughput data to be obtained. The platform has been completely renovated and is now part of a research unit in structural mass spectrometry and proteomics, with which interactions will be facilitated.

The candidate should have a PhD and/or MD degree, relevant experience as an independent investigator and a demonstrated track record of high productivity.

The deadline for applications is April 1, 2013. Short-listed candidates will be called for interview in May-June 2013, and decisions will be announced by October 2013.

General conditions and applications. The successful candidate will be appointed as Chair of Infection Systems Biology for a period of 8 years and will create an Infection Systems Biology research unit. The budget (up to 3,200,000€ over 8 years) includes a tenured salary for the Chair (if necessary), 3 three-year postdoctoral positions, a technician, half-time secretarial assistance, basic laboratory equipment, a substantial contribution to running costs and essential large equipment, and access to on-campus facilities including state-of-the-art technology platforms.

Candidates should send their formal applications by E-mail to the Director of Scientific Evaluation, Prof. Alain Israël, at the Institut Pasteur (25, rue du Dr. Roux, 75724 Paris, France; ibeidchair@pasteur.fr).

The Application shall comprise the following (in order) in a single pdf file:

1. A brief introductory letter (candidates are encouraged to contact the IBEID coordinators, Pascale Cossart (pascale.cossart@pasteur.fr) or Philippe Sansonetti (philippe.sansonetti@pasteur.fr))
2. A Curriculum Vitae and a full publication list.
3. A description of past and present research activities (up to 5 pages with 1.5 spacing).
4. The proposed research project (up to 10 pages with 1.5 spacing) and how it would fit in the defined topic.
5. The names of 5 scientists from whom letters of recommendation can be sought, together with the names of scientists with a potential conflict of interest from whom opinions should not be requested.

As one of Europe’s leading research universities, Ludwig-Maximilians-Universität (LMU) Munich is committed to the highest international standards of excellence in research and teaching. Building on its more than 500-year-long tradition, it offers a broad spectrum of all areas of knowledge within its 18 Faculties, ranging from the humanities, law, economics and social studies, to medicine and the sciences. The Faculty of Physics invites applications for a

Professorship (W2) (6 years/tenure track) of Experimental Physics – Physics with Nanosystems

commencing as soon as possible.

The successful candidate is expected to represent the field of Physics with Nanosystems in research and teaching. The LMUinnovativ initiative „Functional Nanosystems” dedicates this position to the area of „Physics with macromolecular/colloidal nanosystems“. Possible topics include molecular self-assembly, hybrid materials, energy conversion with hybrid Nano- and Biosystems, Nanoscopy, Nanooptics and Nanoelectronics. The participation in the interdisciplinary activities of the cluster of excellence “Nanosystems Initiative Munich” (NIM) and the “Center for NanoScience” (CeNS) as well as in several local collaborative research centres is possible.

LMU Munich seeks to appoint a highly qualified junior academic to this professorship and, therefore, encourages early-career scholars to apply. Prerequisites for this position are a university and a doctoral degree. With an excellent record in research and teaching to date, prospective candidates will have demonstrated the potential for an outstanding academic career.

The initial appointment will be for six years. After a minimum of three years, it can be converted into a permanent position pending a positive evaluation of the candidate’s performance in research and teaching as well as his or her personal aptitude and if all legal conditions are met.

Under the terms of the “LMU Academic Career Program“, in exceptional cases and subject to outstanding performance in research and teaching, the position may be converted from a W2 into a W3 Full Professorship at a later date.

LMU Munich makes a point of providing newly appointed professors with various types of support, such as welcoming services and assistance for dual career couples.

LMU Munich is an equal opportunity employer. Our success in increasing the number of female faculty members is substantial. To continue this process, applications by female candidates are most important to us. In addition, we aim to further increase the diversity of our faculty members and, therefore, explicitly encourage candidates from specific backgrounds to apply. Disabled candidates with essentially equal qualifications will be given preference.

Please, submit your application comprising a curriculum vitae, academic records, a list of publications, as well as a two-page summary of planned research activities to the Dekan der Fakultät für Physik der Ludwig-Maximilians-Universität München, Schellingstr. 4, 80799 München, Germany, not later than January 15, 2013.
Jiangsu Academy of Agricultural Sciences

Open position as Deputy Director and Full Professor in the Institute of Agricultural Facility and Equipment

Jiangsu Academy of Agricultural Sciences (JAAS) is a professional agricultural research and extension institution that has been established since 1932. JAAS ranks at the top of provincial agricultural academies in China in terms of the comprehensive strength in agriculture. JAAS’s headquarter and main research facilities are located in Nanjing, Jiangsu, China.

Currently, JAAS is seeking a deputy director with the rank of full professor in the area of agricultural facility and equipment researches. Applicant should have a commitment to scientific excellence and the enthusiasm, energy, and innovative thinking necessary to lead a dynamic institute with a broad and diverse portfolio. Applicant must possess a faculty position already beyond the assistant professor level in a university or the equivalent position in a research institution. In addition, the candidate should demonstrate excellent records of research accomplishment and has a command of bilingual language for English and Chinese, both in spoken and written.

Successful applicant will be offered a competitive package, including sufficient laboratory space, startup funding, relocation fee and competitive salary commensurate with experience, in addition to a housing allowance, and other employee benefits. Applicant can go to www.jaas.ac.cn for application details.

In addition, more information for other regular faculty positions from JAAS relevant to a variety of disciplines in agriculture is also available at www.jaas.ac.cn.

Contact information
E-mail: rsc-gbk@jaas.ac.cn; Tel: 086-25-84390037

Virginia Tech

Integrated Science Faculty

As part of Virginia Tech’s expanding presence in emerging interdisciplinary programs and degrees in nanoscience, neuroscience, and computational science, the College of Science seeks to fill tenure-track or tenured faculty positions to begin Fall 2013 at our Blacksburg, VA campus. These new faculty positions signify a continued University commitment to the importance of interdisciplinary science to help solve major societal challenges in energy, the environment, and health. Appointments at the rank of Assistant, Associate or Full Professor will be made in one of the College’s eight departments: biological sciences, chemistry, economics, geosciences, mathematics, physics, psychology, and statistics.

New faculty associated with these interdisciplinary programs and degrees will be expected to participate in the College of Science’s recently launched Integrated Science Curriculum (www.science.vt.edu/isce) and interdisciplinary courses, which collectively serve to build strong research and educational partnerships across the sciences. The successful candidates will be expected to establish a vigorous research program, teach effectively at the undergraduate and graduate levels, continue development of scholarly activities and professional capabilities, participate in department, college, and university governance, and pass a criminal background check. Occasional travel to attend professional conferences is required.

The positions are likely to be at the Assistant Professor level, but outstanding senior candidates will be considered. Please visit www.science.vt.edu and click on the links under Faculty Openings. Consideration of applications will begin as early as December 1, 2012 and will continue until the positions are filled.

Virginia Tech is an AA/EEO Employer; applications from members of underrepresented groups are especially encouraged.

College of Science

Biological Sciences • Chemistry • Economics • Geosciences
Mathematics • Physics • Psychology • Statistics
How to apply

1. The applicant should possess a Ph.D., M.D., M. Tech, M.VSc. or equivalent degree with an outstanding track record as reflected in publications and other recognitions and with at least three years of post-doctoral research experience in overseas research laboratories. Only candidates (Indian nationals) working overseas are eligible to apply. *Those who have already returned to India and are currently working in India are not eligible.*

2. Fellows retain an option for drawing either the fellowship or salary if they are appointed at a suitable permanent scientific position.

3. Fellows opting for salary can continue to avail the research /contingency grant with prior approval of DBT.

4. Ramalingaswami Re-entry Fellows could take up fellowship at any of the scientific institutes/universities in the country.

5. DBT encourages host institutions to provide medical benefits, transport allowance, leave travel allowance and other benefits as per their prevailing norms as applicable to their employees of the rank equivalent to Scientist D out of their own resources/ funds.

6. The Environmental Science Programs [ENVS] was established in April 2012 under the School of Science. Professors under the Programs have excellent expertise and research experience particularly in atmospheric or marine environmental science. ENVS offers fundamental and research training in environmental sciences and assist in curriculum development, student consultation and advising, and promotion of the Environmental Science Programs (at both UG and PG levels).

7. Successful applicants should have a PhD degree in the areas of marine/ environmental biology, environmental impact/risk assessment, conservation biology, or environmental chemistry with ample teaching experiences and proven ability to teach effectively in English.

8. Successful candidates will be expected to contribute to both undergraduate and postgraduate teaching in the areas of marine and atmospheric environmental sciences and assist in curriculum development, student consultation and advising, and promotion of the Environmental Science Programs (at both UG and PG levels).

9. Applicants should send a curriculum vitae, a statement of current and future research interests, and three letters of recommendation to: Dr. Meenakshi Munshi, Director, Department of Biotechnology, Block-2, 7th Floor, CGO Complex, Lodhi Road, New Delhi-110 003; Email: ris.fellowship.dbt@nic.in; latest by 31st December, 2012.

10. Applications may be sent as per Proforma downloadable from DBT website (www.dbtindia.nic.in) and duly forwarded by the competent authority to Dr. Meenakshi Munshi, Director, Department of Biotechnology, Block-2, 7th Floor, CGO Complex, Lodhi Road, New Delhi-110 003; Email: ris.fellowship.dbt@nic.in; latest by 31st December, 2012.

11. Applications are solicited from Indian nationals working in overseas research institutions for the “Ramalingaswami Re-entry Fellowship”, a re-entry scheme of the Department of Biotechnology (DBT), Ministry of Science & Technology, Government of India.
The College of Veterinary Medicine at Washington State University seeks a distinguished researcher and academic leader to be Chairperson of the Department of Veterinary Microbiology and Pathology (VMP) (http://www.vetmed.wsu.edu/depts-vmp/index.aspx). As one of the foremost pathology departments in the nation, VMP’s mission is to enhance animal and public health through training veterinary medical students, graduate students and residents, conducting global outreach, and performing biomedical research in immunology, infectious diseases, food safety, genomics, and pathology. VMP’s strong, extramurally funded research programs benefit from close collaborative ties with the USDA/ARS Animal Disease Research Unit, and other College of Veterinary Medicine entities including the Washington Animal Disease Diagnostic Laboratory, the newly founded Paul G. Allen School for Global Animal Health, and the School for Molecular Biosciences. VMP excellence in teaching is supported by the first-in-the-nation College Teaching Academy, whose mission is to enhance educational enterprises at all levels. The Chairperson’s portfolio includes fiscal management of VMP, participation in and promotion of mentoring and professional development for faculty members, and fostering curricular development and scholarship in teaching. The successful candidate will have a record of academic leadership, productive, sustained, extramurally funded, internationally recognized research, and excellence in graduate education. Applicants must hold an earned doctorate in microbiology, immunology, pathology, veterinary medicine, medicine or a related discipline and be eligible for academic appointment at the level of Professor. Review of applications will begin January 7, 2013. To apply or obtain more detailed information go to www.wsujobs.com. For questions or confidential expressions of interest about this position contact Amy Tang, Department of Veterinary Microbiology and Pathology, 313 First Drive, N.W., Atlanta, GA 30332 (Phone: 404-385-7177; e-mail: amytang@vetmed.wsu.edu) or 509.335.0027. 

WSU is an EO/AA Educator Employer.

The Department of Molecular and Cellular Biochemistry invites applications for a tenure track faculty position at the Professor, Associate Professor or Assistant Professor level. We are particularly interested in candidates whose area of research complements departmental programs including, but not limited to the molecular basis of diabetes, cardiovascular disease, neuroscience, and cancer. The successful candidate must possess a Ph.D., M.D. or equivalent degree. Senior applicants must have an active, funded research program and junior applicants must have obtained external funding.

The successful candidate will benefit from a stimulating and collaborative environment within the department, a strong graduate program and state-of-the-art facilities in a new 185,000 ft² research building. Competitive start-up funds and appropriate space will be offered.

Evaluation of applicants will begin December 2012. Interested applicants should visit http://medicine.uky.edu/biochem/reference/ to access the on-line faculty application. Required application materials include a curriculum vitae, a description of your current and future research program, and the names of three references. Inquiries may also be sent to the Faculty Search Committee at Biochem@uky.edu.

For further information about the Department, visit: www.mc.uky.edu/biochemistry

The University of Kentucky is an Equal Opportunity Employer and encourages applications from minorities and women.

The Department of Pharmaceutical Sciences at Northeastern University invites applications for a tenure-track or tenured faculty position at the rank of Assistant or Associate Professor. The position is in the area of Pharmaceutics and Drug Delivery and encompasses expertise in nano-biotechnology, nano-medicine, and drug delivery, as well as drug discovery/medicinal chemistry, drug discovery, and drug delivery. The successful candidate will be expected to establish an extramurally funded research program, participate in professional (PharmD) and graduate (MS and PhD) teaching, and provide service. Applicants with current or transferable funding will be given a priority. The candidate must have experience in, or commitment to working with diverse student populations and/or in a culturally diverse work and educational environments. Interdisciplinary appointments and highly competitive start-up packages are available to qualified applicants.

Applications must be completely submitted on-line at: http://apptrkr.com/296918

Applicants should submit a formal letter of interest, along with curriculum vitae and the names and addresses of three references. More information regarding this position may be obtained by contacting S. John Gatley, Ph.D., Professor and Search Committee Chair, at s.gatley@neu.edu.

Northeastern University is an equal opportunity Title IX employer. Women and minority, and persons with disability are strongly encouraged to apply.
University of Southern California
Faculty Positions
Ming Hsieh Department of Electrical Engineering

The Ming Hsieh Department of Electrical Engineering (http://ee.usc.edu) of the USC Viterbi School of Engineering (http://viterbi.usc.edu) seeks outstanding faculty candidates for appointment as tenure-track assistant professor, tenured associate professor, or tenured professor. Specific areas of interest include but may not be limited to:

1. Communications and/or signal processing theory and methods relevant to distributed and collaborative information processing, data driven and adaptive learning methodologies, “big data,” distributed storage, cloud computing, sparse representations, and networking.
2. Computer architecture, networks, VLSI and CAD, with emphasis on exascale, heterogeneous and accelerated computing, mission-critical systems, new domains (e.g. smart grid, cyber security, computation-driven science); algorithms and protocols for future wireless networks, interface of social and communication networks; extreme-scale, post-CMOS, bio-inspired, and ubiquitous computing, resilience, 3D VLSI, system-level design and verification, and new applications (e.g., biomimetic systems).
3. Electronic/quantum devices/circuits/systems based on emerging micro and nano science and technologies that will provide the basis for innovations as we transition to a post Moore’s law era, and/or will be revolutionary for energy harvesting, micro power sources, ubiquitous health care, wireless communications, environmental monitoring, homeland and border security, etc.
4. Energy/power devices and systems, with possible application to smart grid, energy storage and generation, advanced battery science, low-cost monitoring of the health of electric power grids, advanced high-power electronics, efficient power generation and transmission, etc.

Outstanding senior applicants in the energy/power area who have demonstrated academic excellence and leadership may also be considered for the Lloyd Hunt Endowed Chair.

Faculty members are expected to teach undergraduate and graduate courses, supervise undergraduate, graduate, and post-doctoral researchers, and develop a funded research program. Applicants must have a Ph.D. or the equivalent in electrical engineering or a related field and a strong research and publication record. Applications must include a letter clearly indicating area(s) of specialization, a detailed curriculum vitae, a concise statement of current and future research directions, and contact information for at least four professional references. This material should be submitted electronically at http://ee.usc.edu/about/2013_faculty_positions.htm. Early submission is strongly advised and encouraged. The application review process will commence January 2, 2013.

The USC Viterbi School of Engineering is among the top tier engineering schools in the world. It counts 174 full-time, tenure-track faculty members, and is home to the Information Sciences Institute (ISI), two National Science Foundation Engineering Research Centers, the Department of Homeland Security’s first University Center of Excellence (CREATE), and an Energy Frontiers Research Center (EFRC) supported by the Department of Energy. USC Viterbi faculty conduct research in leading-edge technologies with annual research expenditures typically exceeding $180 million.

We encourage applications from transformative scholars -- distinguished individuals whose accomplishments are transforming the field; and interdisciplinary scholars -- outstanding individuals engaged in research aligned with the interests of the department but whose research also cuts across other departments in the School and University.

USC values diversity and is committed to equal opportunity in employment.
Women and men, and members of all racial and ethnic groups are encouraged to apply.

---

Stanford University School of Medicine
Department of Microbiology and Immunology

invites applications for a tenure-track faculty position at the Assistant Professor level. We are looking for highly interactive candidates with outstanding records of research achievement in the area of innate or acquired immunity, virology, bacteriology or parasitology or susceptibility genetics, with a potential emphasis on quantitative analysis or the molecular mechanisms of pathogenesis and symbiosis. The predominant criteria for appointment in the University Tenure Line are major commitments to research and teaching.

The Department of Microbiology and Immunology (http://microimmuno.stanford.edu) is a collegial, interactive and interdisciplinary environment. Current faculty use classical, contemporary and cutting-edge approaches, enlivened by the entire Stanford research community. Applicants are expected to establish a vigorous and innovative research program that complements and extends the current research of the department and the university. Responsibilities will also include teaching graduate, undergraduate or medical students.

Interested applicants should submit a curriculum vitae, a two-page statement of research objectives and a statement of teaching preferences. Please arrange for three letters of reference to be sent directly to:

David Schneider, Ph.D. and Karla Kirkegaard, Ph.D.
c/o Mayumi Beppu
Department of Microbiology and Immunology
Stanford University School of Medicine
Fairchild Science Building
299 Campus Drive, D338d
Stanford, CA 94305-5124

Applications will be accepted until December 31, 2012.

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.

---

Washington State University

Director
Center for Environmental Research, Education and Outreach (CEREO)

Washington State University is in the process of identifying a new CEREO Director to promote system-wide (multi-campus) interdisciplinary environmental activities integrated across research, education, and outreach efforts that are regional, national, and global in scope. CEREO (http://www.cereo.wsu.edu) is a faculty-led initiative featuring 200+ affiliates from six colleges. It is the premier center of research, teaching and service activity at WSU for collaborative efforts pursuing major environmental initiatives. CEREO advances three principal goals: (a) promotion of broad, multi-investigator interdisciplinary research programs for groundbreaking environmental research and graduate training; (b) facilitation of high quality environmental research, teaching, and institutional outreach supporting the Land Grant mandate across WSU’s four campuses and numerous Extension centers; and (c) promotion of productive relationships with diverse stakeholders.

This position is part of WSU’s priority to build a diverse faculty and as such female and minority candidates are strongly encouraged to apply. WSU has faculty friendly policies that include partner accommodations and on-site childcare. WSU is an Affirmative Action, Equal Opportunity Employer.

Both nominations and applications are welcome. All nominations should be sent to Ana Blaisdell (ablaisdell@wsu.edu). For a full position description and details regarding application, please go to www.cereo.wsu.edu. All inquiries will be treated confidentially.

---

Online @sciencecareers.org
The University of California at Davis is pleased to announce recruitment for a nine-month tenure-track faculty position in Physiology. The successful candidate will join the Department of Animal Science in the College of Agricultural and Environmental Sciences at the rank of Assistant Professor. Criteria for appointment include: a Ph.D. or equivalent, a strong interest in improving sustainable animal production by understanding how environmental, metabolic, nutritional, or management stressors interact with gene expression including investigation of epigenetic effects, a record of excellence in scholarly research, and demonstrable potential to establish a competitively-funded research program relevant to animal stress in sustainable animal agriculture. The appointee will be responsible for teaching an undergraduate course in physiology and additional contributions to the departmental curriculum, be actively involved in undergraduate advising, curricular development and department and university service. The appointee is also expected to guide and mentor graduate students and participate in the outreach programs of the department and college.

Applicants should submit materials via the following website: https://recruit.ucdavis.edu/apply/JPF00018. Additional inquiries can be directed to Professor Trish Berger, telephone (530) 752-1267, tberger@ucdavis.edu. The position will remain open until filled but to ensure consideration, applications should be received by December 1, 2012.

UC Davis is an Affirmative Action/Equal Employment Opportunity Employer and is dedicated to recruiting a diverse faculty community. We welcome all qualified applicants to apply, including women, minorities, veterans, and individuals with disabilities.

Yale University is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from women and minority candidates.

Science Careers Forum:
- Relevant Career Topics
- Timely Advice and Answers
- Community, Connections, and More!

Visit the forum and join the conversation today!
The University of Tennessee, Knoxville requests nominations and applications of individuals to lead the National Institute for Mathematical and Biological Synthesis (NIMBioS). We seek an internationally-recognized biologist or mathematician with extensive experience working at the interface of these two fields to direct NIMBioS over the next five years of its support from the National Science Foundation and to provide the vision and guidance necessary to aid the University in planning for the longer-term sustainability of NIMBioS beyond the supported renewal period, which ends in 2018.

NIMBioS has been highly successful in responding to the needs for research and education across a diversity of biological disciplines that benefit from collaborative efforts with mathematical and computational scientists. We seek an innovative leader who can guide the current and future activities of this national resource.

Requirements are a Ph.D. and research experience to be appointed to a permanent position as Full Professor in a University Department, demonstrated experience managing federally-funded projects appropriate to lead a unit with approximately 25 full-time staff and researchers, and a recognized record of national and international accomplishment in the biological sciences. The candidate should have experience guiding students and post-doctoral researchers, demonstrated ability to compose effective research proposals for external support, experience developing partnerships, and a commitment to enhancing the diversity of those involved in interdisciplinary research. Departmental affiliation of the successful candidate will be determined based upon input from the candidate, appropriate departments, and the University administration. Nominations and applications from individuals from under-represented groups in biology and mathematics are particularly encouraged. For further information, please contact Prof. Daniel Simberloff at dsimberloff@utk.edu.

Applications should include a cover letter detailing your experience and interest in the position, a current CV, and the names and contact information of five individuals who can attest to your abilities to direct NIMBioS. For information about NIMBioS, visit http://nimbios.org. Applications should be sent as PDFs to: Ms. Chandra Eskridge at director-search@nimbios.org. Review of applications will begin December 9, 2012 and will continue until the position is filled.

The University of Tennessee is an EEO/AA/TITLE VI/TITLE IX/SECTION 504/ADA/ADEA institution in the provision of its education and employment programs and services. All qualified applicants will receive equal consideration for employment without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, or covered veteran status.

The Knoxville campus of the University of Tennessee is seeking candidates who have the ability to contribute in meaningful ways to the diversity and intercultural goals of the University.
FACTS & FICTION
Careers in Industry and Academia

Trying to figure out the next step in your career? Join us for a roundtable discussion that will look at facts and fiction surrounding academic and industry career options for PhD-level scientists. Get some nuts and bolts advice on how to research career options, what questions to ask, and how to best prepare for various careers.

- Do industry and academic careers require different skill sets?
- Do industry jobs have better compensation? Less autonomy?
- Do academic scientists have less work/life balance?

For answers view our roundtable discussion for free at:

ScienceCareers.org/webinar

Produced by the Science/AAAS Business Office.
TWO FACULTY POSITIONS (Assistant or Associate Professor)  
Cetacean Ecologist (Telemetry) and Marine Mammal Behavioral Ecologist/Sea Grant Extension Specialist  
The Oregon State University Marine Mammal Institute (http://mmini.oregonstate.edu) seeks two full-time faculty positions:

Cetacean Ecologist (Posting #0009881): We seek an individual with demonstrated potential to develop a strong research program in whale telemetry and to provide continuity with the existing research group.

Marine Mammal Behavioral Ecologist/Sea Grant Extension Specialist (Posting #0009875): We seek an individual with potential to develop a strong research program in the behavioral ecology of marine mammals, as well as strong skills in engaging stakeholders and the public on management issues.

Both positions are 12 month (1.0 FTE), with 0.5 FTE supported by recurring funds (tenurable) and 0.5 FTE provided through grants and contracts secured by the successful candidate. The positions will be based at the Hatfield Marine Science Center in Newport, Oregon. The position ranks (Assistant or Associate Professor) and salaries will be commensurate with experience. Minimum qualifications include a PhD or equivalent advanced degree in a biological discipline, research experience with marine mammals and a strong record of peer-reviewed and refereed publications. Go to http://oregonstate.edu/jobs and search for postings 0009881 or 0009875 to access the full position announcements and to submit an application. To ensure full consideration, complete applications should be received by 15 December, 2012; applications will be accepted until 5 January 2013.

Oregon State University is an Equal Opportunity Affirmative Action Employer.

SOUTHERN ILLINOIS UNIVERSITY EDDWARDVILLE  
MOLECULAR GENETICIST/GENOMICIST  
DESCRIPTION OF DUTIES: The Department of Biological Sciences, Southern Illinois University Edwardsville invites application for a tenure-track position at the Assistant Professor level. We seek applicants with training in molecular genetics, bioinformatics, and/or comparative genomics. The successful candidate will share responsibility for teaching an introductory genetics course for biology majors, offer upper-division courses in area of expertise, and may also participate in non-majors courses in biology. Candidates should exhibit potential for independent and innovative research involving Master’s and undergraduate students.

QUALIFICATIONS: a Ph.D. in the biological sciences with specialization in genetics and/or molecular biology. Post-doctoral teaching and/or research experience preferred. Review of applications will begin December 10, 2012 and continue until position is filled. To apply, send a letter of application, statement of teaching philosophy, statement of research interest, curriculum vitae, copies of representative publications, copies of transcripts, three letters of reference sent by referees directly to the department, and names, phone numbers, addresses, and email addresses of three referees to:

Geneticist Search Committee  
Department of Biological Sciences  
Southern Illinois University Edwardsville  
Box 16515  
Edwardsville, IL 62026

SIUE is a comprehensive regional university located on a 2,660 acre campus in a rural setting 25 minutes from downtown St. Louis, MO. SIUE is dedicated to excellence in undergraduate education.  

SIUE is an Affirmative Action and Equal Opportunity Employer. SIUE is a state university—benefits under state sponsored plans may not be available to holders of F1 or J1 Visas. Applicants may be subject to a background check prior to an offer of employment.

TWO FACULTY POSITIONS-ASSISTANT PROFESSOR TWO COMMUNITY ECOLOGISTS

1. The Department of Botany and Plant Sciences invites applications for an assistant professor, tenure-track (9-month) position in Plant Community Ecology. Applicants should work at the forefront of the field, with emphasis on a functional approach to understanding community dynamics. We seek a plant ecologist who can interact with programs in conservation biology, invasive species ecology, ecological genomics, ecosystem and landscape ecology, and/or theoretical and computational ecology. Preference will be given to candidates who integratively address with statistical, phylogenetic, or modeling approaches, and who can apply advanced techniques such as, but not limited to, GIS/remote sensing, niche modeling, ecophysiological measurements, or stable isotopes. The successful candidate will supervise graduate students, develop a graduate-level community ecology course, and participate in the life science undergraduate teaching program. The position includes a research appointment in the Agricultural Experiment Station with an expectation to develop a nationally competitive program and obtain extramural grant funds. For additional information about the Department and the campus visit http://enas.ucr.edu/ and http://www.plantbiology.ucr.edu/.

Applicants must hold a Ph.D. in ecological or environmental sciences or related fields with postdoctoral experience. Evaluation of applications will begin Jan 7, 2013 and continue until the position is filled. The position will be available July 1, 2013. Interested individuals should submit (1) a curriculum vitae, (2) a statement of research and teaching interests, and (3) have three letters of recommendation submitted through https://academicjobsonline.org/ajo/jobs/2291.

2. The Department of Biology invites applications for a 9-month tenure-track faculty position in the area of Community Ecology, starting July 1, 2013. We are searching for an empirical ecologist who studies relationships between interacting species and their environment. Examples of research focus could include (but are not limited to) community assembly, consumer-resource dynamics, evolutionary ecology, including ecological genetics and genomics, interactions between ecology and evolution, and responses of communities to stressors such as climate change and invasive species. The ideal candidate will have a strong field component to their research and expertise in advanced statistical techniques. The successful candidate will join a vibrant community of researchers in the Department of Biology, The Ecology, Evolution and Organismal Biology Graduate Program, the Center for Conservation Biology, the Center for Invasive Species Research, the Institute for Integrative Genome Biology, and have access to modern campus facilities in genomics, proteomics, microscopy, stable isotope analysis, geographic information systems, ecological sensing technologies and field stations and facilities. Consult www.biology.ucr.edu for details about the department. Applicants will be expected to pursue vigorously extramurally-funded research and contribute to undergraduate and graduate teaching. A Ph.D. and demonstrated excellence in research are required.

Applications, including a curriculum vitae, separate statements of research and teaching interests, and up to three selected reprints must be submitted through: www.academicjobsonline.org/ajo/jobs/2304. In addition, applicants should request that three letters of recommendation be submitted through this site. Evaluation of applications for this position will begin January 3, 2013, but the position will remain open until filled.

The University of California, Riverside is an Affirmative Action Equal Opportunity Employer committed to excellence through diversity.
MOLECULAR BIOLOGIST  
Research Investigator

DuPont, a Global Leader in Biotechnology, is looking for Molecular Biologists to work in its CR&D Biochemical Sciences & Engineering division to develop biological routes for the production of industrial compounds, small molecules, and macromolecules via metabolic engineering or in vitro biocatalysis and protein engineering. The successful candidates will have expertise in relevant areas such as molecular biology, genetics, microbial metabolism, and microbial physiology; a Ph.D. in Molecular Biology, Biochemistry, or related field; and at least two years of postdoctoral experience as well as a demonstrated record of productivity through multiple publications or patents. Apply online at website: http://www.dupont.com/careers. Search: Ph.D. Early Career Opportunities.

FERMENTATION ENGINEER  
Research Investigator

DuPont Central Research and Development has an immediate opening for Biochemical Engineers with a strong background in biochemistry enabled process research and development. Successful applicants will have excellent communication, project management, and leadership skills as well as strong theoretical knowledge and hands-on experience in one or more areas including biocatalyst design, fermentation optimization, enzymatic transformations, and downstream separations/purification design. The position also requires conceptual design and experimental validation of bioengineering processes from laboratory to plant scale within a collaborative and multidisciplinary team of biological scientists and engineers. Apply online at website: http://www.dupont.com/careers. Search: Ph.D. Early Career Opportunities.
The Department of Biology at Northeastern University (www.northeastern.edu/biology/) has an open search for the Chair of the Department. Candidates who hold a Ph.D. in biology or related field; a record of external funding and research appropriate for the academic rank of Full Professor; demonstrated administrative, leadership, and interpersonal skills; a record of innovative program development and interdisciplinary collaboration; and documented teaching effectiveness are encouraged to apply. The successful candidate will lead and expand a dynamic department that plays a key role in the research and educational missions of the University.

The Biology Department is strongly interdisciplinary, with 15 tenured and tenure track faculty in Biology and an additional 10 faculty with joint appointments in other departments. Approximately 1000 undergraduates are enrolled in the Biology, the Biochemistry, and the Behavioral Neuroscience majors. Our graduate programs serve approximately 60 PhD students, and the Biology department participates in Professional M.S programs in Bioinformatics and Biotechnology. We are searching for an educator and scholar who will complement our research programs and foster and expand collaborative research.

Research interests in the department are diverse, including microbiology, cell biology, neurobiology and motor control, and developmental biology, with a significant emphasis on molecular and cellular approaches to problems in basic and translational science. The Department is affiliated with the Antimicrobial Discovery Center, the New England inflammation and Tissue Protection Institute, and the Marine Science Center in Nahant. Northeastern University is in the process of hiring 300 new faculty. The incoming Chair will have an opportunity to contribute to this process.

Northeastern University occults a vibrant 67-acre campus in the heart of Boston, surrounded by other leading educational, health care, technological, and research institutions, as well as world-renowned venues for art and music. The campus has received an American Institute of Architects award for “most beautiful new or renovated exterior space.” Northeastern University is an Equal Opportunity, Affirmative Action Educational Institution and Employer, Title IX University. Northeastern University particularly welcomes applications from minorities, women and persons with disabilities. A competitive salary and startup package will be provided. To apply, visit the College of Science website at: http://www.northeastern.edu/cov/ and click on the Faculty Positions button at the bottom of the page. Please include a letter of application, curriculum vitae, the names and contact information for five references, and a brief description of research interests. Candidate must have experience in, or a demonstrated commitment to, working with diverse student populations and/or in a culturally diverse work and educational environment.

Informal inquiries can be addressed to: Dr. Kim Lewis, Chair, Biology Chair Search Committee, k.lewis@neu.edu; 617-373-8238. The earliest anticipated start date is July, 2013. Review of applications will begin in January, 2013 and continue until the position is filled.

Recruitment: Executive Chief Editor of Journal of Integrative Plant Biology

Journal of Integrative Plant Biology (JIPB, www.jipb.net) is a monthly plant biology journal that reports novel scientific discoveries using integrative genetic, chemical, cell and molecular biological approaches. As a leading Wiley-Blackwell journal, JIPB is subscribed to by over 14,200 libraries, and is indexed by 67 databases including SCI, PubMed, and Google Scholar. We are now looking for a highly-motivated Executive Chief Editor to guide the journal’s development. Compensation will be 200,000–300,000 RMB, depending on qualifications. The position is available immediately.

Main Responsibilities:
• Assist the Chief Editor to promote JIPB;
• Guide the development of the journal;
• Evaluate manuscript quality, assign manuscripts to editors;
• Write academic news and presentations;
• Aid in manuscript processing.

Qualifications:
• Ph.D. in botany, genetics, or related field;
• More than 2 publications as the 1st or corresponding author in a SCI journal with an impact factor greater than 9;
• 3 years of research experience abroad;
• Professional written & spoken English;
• Enthusiastic, organized, and an interest in academic journals.

To apply, please send your CV and cover letter to Ping He at he1001@lbcas.ac.cn.

ASSISTANT PROFESSOR - COMPLEXITY SCIENCE

The College of Arts and Sciences at the University of Miami seeks applicants and nominations for four tenure track appointments in Complexity Science, including complex networks and complex systems, from disciplines across the physical, biological, computational, mathematical, statistical, medical, economic and social sciences. Candidates should have a Ph.D. in a suitable quantitative discipline, and have experience in analyzing real-world data, as well as mathematical and computational modeling. To be considered at Associate or Full Professor level the candidate must have independent teaching and research experience. The successful candidate will be expected to teach at both undergraduate and graduate levels and to develop and maintain internationally recognized research.

Applicants should forward a cover letter, CV, two representative publications, research plan, statement of teaching philosophy and the names of three referees using the application portal at http://www.as.miami.edu/sciencecluster/. Review of applications will begin November 15, 2012 and continue until the positions are filled. Information about the College can be found at http://www.as.miami.edu/.

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

www.miami.edu

This booklet is brought to you by the AAAS/Science Business Office in partnership with the L’Oreal Foundation
ASSISTANT PROFESSOR
Department of Biological Sciences
Seton Hall University (SHU) is seeking to fill one tenure-track Assistant Professor Position in the Department of Biological Sciences starting August 2013. Candidate must have a Ph.D. with at least two years of postdoctoral training and experience in metabolic pathways, metabolomics, virology, mycology, and/or microbiology are invited to apply. The successful applicant will develop a research program that involves both undergraduate and graduate students and can be externally funded. He/She will teach at most 2/3 course load including graduate courses in his/her area of expertise. Commitment to teaching is important. For consideration, please submit curriculum vitae, statement of research interests and research interests and three letters of recommendation with cover letter to the address below. Applications are due December 15, 2012.

Jane L. Ko, Ph.D.
Department of Biological Sciences
Seton Hall University
400 South Orange Avenue
South Orange, NJ 07079-2694
E-mail: jane.ko@shu.edu

ANTIMAL PHYSIOLOGIST/ MOLECOLOGIST
The Department of Biological Sciences, California State University Bakersfield invites applicants for a tenure-track position in Animal Physiology/Morphology at the rank of Assistant Professor. The candidate must be capable of developing an externally funded research program that includes both undergraduate and graduate students (M.S. level). Candidates will teach courses in animal biology, their area of specialty, physiology, comparative anatomy, and genetics. Position available upon September 1, 2013. Application deadline 15 January 2013. See web site: http://www.csb.edu/biology for full details.

More scientists agree—we are the most useful website.

Science Careers
From the journal Science
www.ScienceCareers.org

ASSISTANT PROFESSOR
Environmental Microbiology
The Department of Microbiology and the Institute on Ecosystems at Montana State University Bozeman invites candidates with a Ph.D. in Microbiology or related area to apply for a full-time, nine-month tenure-track position in Environmental Microbiology at the Assistant Professor level beginning August 2013. The successful candidate will have postdoctoral and/or Assistant Professor experience and will be responsible for developing an extramurally funded, nationally recognized research program within the broad field of environmental microbiology. The faculty member will participate in teaching departmental undergraduate and graduate courses in their area of expertise, and will be responsible for providing service to the university and scientific community via integration of research, teaching, and service. A competitive institutional salary, a generous startup package, and a renovated state-of-the-art research facility support this position.

Full details about the position and application procedure are available at website: http://www.montana.edu/jobs/faculty/12245-2. Potential candidates are encouraged to contact the Search Committee Chairpersons, Dr. Mark Young or Matthew Fields, (e-mail: myoung@montana.edu; matthew.fields@biofilm.montana.edu) for more details. Screening will begin December 1, 2012 and will continue until a suitable applicant is hired. ADA/Equal Opportunity/Affirmative Action/Veterans Preference Employer.

MICROBIAL ECOLOGIST
The W.K. Kellogg Biological Station (KBS) of Michigan State University seeks to fill a tenure-track academic year faculty position in microbial ecology. The position is available beginning in fall 2013 and will be filled at either the ASSISTANT or ASSOCIATE PROFESSOR level. We seek a candidate conducting research that uses microbes to address fundamental ecological and evolutionary questions. While the specific research area of interest is open, the successful candidate should have a demonstrated interest in research involving aquatic systems. The primary appointment for this position will be at the Kellogg Biological Station (website: http://www.kbs.msu.edu), an off-campus location rich in lakes and wetlands and ideally suited to a field-focused research program. In addition, candidates will participate in the campus departments of Microbiology and Molecular Genetics, Zoology or Plant Biology will be evaluated as part of the search process. Application materials should be submitted to MSU’s online application site (website: https://jobs.msu.edu; position number 30198796, posting number 6950), including: a letter of interest, curriculum vitae, a statement of research accomplishments and goals, a statement of teaching interests, and contact information for three references. Questions should be addressed to e-mail: microbiologyssearch@kbs.msu.edu or Dr. Steve Hamilton (e-mail: hamilton@kbs.msu.edu), Chair of the Search Committee.

POSTDOCTORAL POSITIONS
We seek two postdoctoral fellows (100%, multiyear) with neuroscience background to study how developmental exposure of alcohol induces epigenetic modifications in genes of the neuroendocrine-immune system and how it is transmitted through generations. Also, whether stem cell-derived hypothalamic neuron transplants prevent alcohol-induced neuroendocrine-immune dysfunction. Experience in rodent surgery, neuron culture, ChIP assay, real-time RT-PCR, western blotting, transcriptional and gel-shift assays is strongly preferred. RNA sequencing experience is a plus. Salary depends upon experience (NIH scale). Send curriculum vitae to e-mail: sarkar@aasop.rutgers.edu. Rutgers University is an Affirmative Action/Equal Opportunity Employer.
AAAS is here – promoting universal science literacy.

In 1985, AAAS founded Project 2061 with the goal of helping all Americans become literate in science, mathematics, and technology. With its landmark publications *Science for All Americans* and *Benchmarks for Science Literacy*, Project 2061 set out recommendations for what all students should know and be able to do in science, mathematics, and technology by the time they graduate from high school. Today, many of the state standards in the United States have drawn their content from Project 2061.

Every day Project 2061 staff use their expertise as teachers, researchers, and scientists to evaluate textbooks and assessments, create conceptual strand maps for educators, produce groundbreaking research and innovative books, CD-ROMs, and professional development workshops for educators, all in the service of achieving our goal of universal science literacy.

As a AAAS member, your dues help support Project 2061 as it works to improve science education. If you are not yet a AAAS member, join us. Together we can make a difference.

To learn more, visit [aaas.org/plusyou/project2061](http://aaas.org/plusyou/project2061)
Your career is our cause.

www.sciencecareers.org
- Job Postings
- Job Alerts
- Resume/CV Database
- Career Advice
- Career Forum

Get help from the experts.

We deliver customized job alerts and more...

www.ScienceCareers.org

Download your free copy today.

ScienceCareers.org/booklets

CAREER TRENDS
Careers Away from the Bench
Advice and Options for Scientists

From technology specialists to patent attorneys to policy advisers, learn more about the types of careers that scientists can pursue and the skills needed in order to succeed in nonresearch careers.

Science Careers
From the journal Science AAAS

MARKETPLACE

Widely Recognized Original & Guaranteed
KlenTaq1 8¢/u
Truncated Tag DNA Polymerase Withstand 99°C
US Pat #5,436,149
Call AB Bioscience, LLC
1•800•383•3362
Fax: 314•968•8988
e-mail: abpeps@msn.com
www.abpeps.com