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EURAXESS LINKS CHINA

Dear Colleagues,

Welcome to the first 2014 edition of the **EURAXESS Links China Newsletter**.

This is the season for good resolutions and this edition's *EU Insight* focuses on one made by the European Commission: foster the open access of public research, and on the various initiatives taken in that direction, some of which you might have already read about in our *News & Developments* of December last year.

In this month's *Feature*, we have the privilege to discuss with Prof. Herbert Jäckle, Vice-president of the Max Planck Society and recent recipient of the Chinese 'International Science and Technology Cooperation Award' 2013, what this recognition meant to him as well as the significance of scientific cooperation with China, in the past, today, and in the years to come.

You will find 19 new calls under *Grants & Fellowships*, including the first 2014 call of the NSFC's International Young Scientists Fellowship. We also introduce to you the Youth Elite Programme of the Chinese Academy of Agricultural Science (CAAS), an ambitious scheme to attract outstanding young academic talents, in particular from outside China, in the field of agricultural science.

Following the launch at the end of last year of the new European framework programme for research and innovation „Horizon 2020“ we had published in the previous edition of this newsletter a list of calls explicitly encouraging collaboration with Chinese partners. We have now completed this list with a few additional calls targeting cooperation with China. You will find it under the *Open calls under Horizon 2020 and Euratom* section. And please keep in mind that collaboration with Chinese partners remains possible and is welcome for all calls under Horizon 2020.



On the same topic of Horizon 2020, two launch events will take place in Macau and Hong Kong on 20 and 21 of February respectively. Researchers and members of the Research & Innovation community at large, based in these two cities, are warmly welcome to attend these events. EURAXESS will be present as well and this could be a good occasion to meet in person and discuss how to improve and adapt our services to the specific needs of local researchers.

In this edition we also remind European young researchers working on contemporary Chinese issues to take part in the call for papers of the 2nd 'New European Research on Contemporary China International Conference' that will take place next July in Beijing, co-organized by the CEFC and EURAXESS Links China. The deadline to send your paper extract is 15 February.

Finally, we would like to invite all of you to follow us online and on social media, be it by checking our [website](#), joining our [LinkedIn group](#) or following us on [Facebook](#) and [WeChat](#). This has been our resolution for 2014, to be more active there and we hope you will find it useful and handy. The short EURAXESS Links China assessment survey is also still online, and we thank you for taking three minutes (not more) to answer it.

About this newsletter

EURAXESS LINKS CHINA NEWSLETTER is a monthly electronic newsletter, edited by EURAXESS Links China, which provides information of specific interest to European researchers and non-European researchers in China who are interested in European research landscape and conducting research in Europe or with European partners.

The information contained in this publication is intended for personal use only. It should not be taken in any way to reflect the views of the European Commission nor of the Delegation of the European Union to China.

Please email to china@euraxess.net for any comments on this newsletter, contributions you would like to make, or if you think any other colleagues would be interested in receiving this newsletter, or if you wish to unsubscribe.

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Wishing you a pleasant read and a very happy Chinese New Year of the Horse,

Jacques de Soyres

Andrea Strelcova

[EURAXESS Links China](#) Country Representatives



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1 EU Insight – Open Access status quo and EU initiatives in Horizon 2020

One of the key principles to be implemented in the European Research Area is “[to guarantee access to and uptake of knowledge by all](#)” – or the so-called “open access” (OA). Open access refers to the practice of providing on-line access to scientific information that is free of charge to the end-user.

Open access

requirements are based on a balanced support to both 'Green open access' (immediate or delayed open access that is provided through self-archiving) and 'Gold open access' (immediate open access that is provided by a publisher).

The EU's open access initiatives

The European Commission has long possessed the view that as all research and innovation builds on earlier achievements, an efficient system for broad dissemination of and access to research data and publications can accelerate scientific progress. Máire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science stresses that “[w]e need to ensure that scientists have access to the best and latest results of research.” That is why new publications based on EU-funded research will be freely available to all. In addition, as part of a pilot open access to some of the scientific data resulting from Horizon 2020, the new EU Framework Programme for Research and Innovation, will also be opened up.

Open Access to EU-funded scientific research

The European Commission (EC) aims to optimise the impact of publicly-funded scientific research, both at European level (under the EU Research Framework Programmes FP7 and Horizon 2020) and at Member State level. This is essential for Europe's ability to enhance its economic performance and improve the capacity to compete through knowledge. Open access to results of publicly-funded research could facilitate the dissemination process to the benefit of researchers, innovative industry and citizens. It can also boost the visibility of European research, and in particular offer small and medium-sized enterprises (SMEs) access to the latest research for utilisation.

The **Pilot** involves the following **key areas** of Horizon 2020:

- (1) Future and Emerging Technologies,
- (2) Research infrastructures – part e-Infrastructures,
- (3) Leadership in enabling and industrial technologies – Information and Communication Technologies,
- (4) Societal Challenge: Secure, Clean and Efficient Energy – part Smart cities and communities,
- (5) Societal Challenge: Climate Action, Environment, Resource Efficiency and Raw materials – with the exception of topics in the area of raw materials,
- (6) Societal Challenge: Europe in a changing world – inclusive, innovative and reflective Societies, and
- (7) Science with and for Society.



Therefore, the Commission's strategy is to develop and implement open access to research results from projects funded under FP7 and Horizon 2020 (H2020).

Pilot on Open Research Data in Horizon 2020

A novelty in H2020 is the 'Pilot on Open Research Data in Horizon 2020'. Launched on December 16th, 2013, researchers in projects participating in the pilot are asked to make the underlying data needed to validate the results presented in scientific publications and other scientific information available for use by other researchers, innovative industries and citizens. For 2014-2015, topic areas participating in the Open Research Data Pilot will receive funding of around €3 billion.

The EC's guidelines on open access

Two sets of guidelines were published in December going hand-in-hand with the launch of the above-mentioned pilot and open access initiatives under H2020:

- 1) The "[Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020](#)" provide context and explanation for the rules on open access applicable to beneficiaries in projects funded or co-funded under Horizon 2020.
- 2) The "[Guidelines on Data Management in Horizon 2020](#)" published by the EC are addressed to applicants and beneficiaries of projects under the Framework Programme. These guidelines are intended to give them indications on how they can comply with their responsibilities regarding research data quality, sharing and security.

Measuring the status quo of open access on European and world level

In August 2013, three [reports](#) were published as part of a study conducted for the European Commission (EC) to develop a set of indicators for measuring open access in the European Research Area (ERA) countries, as well as Brazil, Canada, Japan, and the US. The reports came to several interesting conclusions. First of all, compared to [open access repositories](#) of theses and scientific articles, institutional repositories that support the archiving of *scientific datasets* remain marginal.

Second of all, in regard to [the availability of open access scholarly publications](#), the tipping point for OA (more than 50% of the papers available for free) has been reached in several countries according to the authors. Of the countries in question Brazil leads with 63%, followed by the US with the proportion of open access peer-reviewed papers being 56% while Canada is about to reach the tipping point (currently at around 49%). The ERA has roughly the same proportion of OA articles as that observed at the world level (43% for 2008-2011, a figure which is not recalibrated for precision and recall), though there are noticeable differences among the countries with the Netherlands, Portugal,



Lithuania, Estonia, Denmark, Malta, Ireland, and Belgium having already reached the tipping point.

And third of all, the authors argue that most national governments have not proposed or implemented direct [legislation on OA](#) (the major exceptions being the US and Brazil who also lead in regard to OA availability) and instead, OA is often addressed through less formal means, such as the production of guidelines for research funding agencies. The development of an OA culture among researchers can be fostered – the authors conclude – by institutions, funding bodies, and governments through initiatives that enable or provide incentive for the OA dissemination of peer-reviewed publications.

The European Commission sees the implementation of open access is a major challenge given the uneven state of advancement of Member State policies in this area. Therefore, the EC encourages national initiatives at Member State level and contributes to their co-ordination within the ERA. Continuing the engagement with stakeholders and encouraging a culture of sharing scientific publications and, with due respect to the rights of all concerned, research data are major concerns over the course of [Horizon 2020](#).

Sources and further information

[1] European Commission: [Fact sheet: Open Access in Horizon 2020](#), 9 December 2013.

[2] European Commission: *ERA Newsletter, 1st Edition*, [Foreword: The EU as a leader on wider access to research results](#), January 2014.

[3] European Commission: [Science in Society portal](#).

[4] European Commission, Press Release: [Commission launches pilot to open up publicly funded research data](#), 16 December 2013.

[5] KoWi (European Liaison Office of the German Research Organisations), news article: [European Commission publishes Guidelines on Open Access in Horizon 2020](#), 20 December 2013.

[6] Science-Metrix Inc. (Authors: Eric Archambault, Didier Amyot, Philippe Deschamps, Aurore Nicol, Lise Rebout & Guillaume Roberge): [Proportion of Open Access Peer-Reviewed Papers at the European and World Levels—2004-2011](#), August 2013.

[7] Science-Metrix Inc. (Authors: Julie Caruso, Aurore Nicol & Eric Archambault): [Open Access Strategies in the European Research Area](#), August 2013.

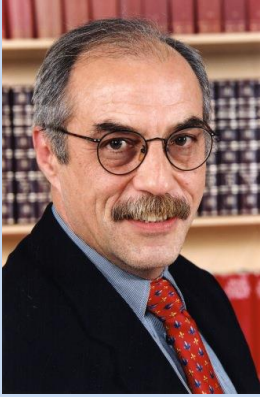
[8] Science-Metrix Inc. (Authors: Aurore Nicol, Julie Caruso & Éric Archambault): [Open Data Access Policies and Strategies in the European Research Area and Beyond](#), August 2013.

A list of relevant EU-funded projects can be accessed [here](#).



2 Feature

“Meet the Researcher”: Prof. Herbert Jäckle - Vice-president of the Max Planck Society, Director at the Max Planck Institute for Biophysical Chemistry and recipient of the Chinese ‘International Science and Technology Cooperation Award’ 2013



Professor Herbert Jäckle has served as the Director of the Department of Molecular Biology at the Max Planck Institute for Biophysical Chemistry in Göttingen since 1991. Professor Jäckle is also the head of a research group at Max Planck Institute for Developmental Biology, Tübingen; Chairman at the Department of Genetics and Microbiology at Ludwig Maxmilian University in Munich, and also a member of the European Molecular Biology Laboratory in Heidelberg. Last but not least, he is one of the four Vice-presidents of the Max Planck Society.

This month we have the special opportunity to introduce to our readers Prof. Herbert Jäckle, vice-president of the Max Planck Society, who recently, throughout his long-term intense collaboration with the Chinese Academy of Sciences received the highest state prize for international scientists in China. We wanted to ask professor Jäckle several questions to find out more on his research collaboration with China and personal experience with researchers and science in China that led to this special recognition by the Chinese government. The International Science and Technology Cooperation Award is awarded at on an annual ceremony Beijing and honors distinguished foreign scientists who promote science and technology advancement in China.

Dear professor, could you first please briefly introduce yourself, your research interests and experience in China?

I am a director at the Max Planck Institute for Biophysical Chemistry in Göttingen, Germany and also serve as a vice president of the Max Planck Society. I am a molecular biologist who studies pattern formation in animals, asking questions of how animals develop a head at one end and a tail at the other, how organs develop and what are the molecules and mechanisms that are responsible for these processes. Once we understand how these processes are done properly, we can ask what goes wrong in diseases and we can find ways - therapies - to fix it. My experience in China is that more and more, science also turns to such fundamental questions and there is a growing number of young scientists who follow this strategy - i.e. from knowledge to product - instead of trying to fix a problem without having the insight into the system. I have seen this change over time in China, and this is wonderful and will be successful. The reason is simple: innovative applications cannot be done on paper and on demand. An example: nobody would have foreseen the internet and all its applications, it was a stepwise development that involved unrelated discoveries until engineers and computer scientists finally saw how to put things together.

You have been just granted the State Science and Technology Award in the category awarded to foreign scientists (congratulations!). When did



you find out that you won the state prize and what was your immediate response? Can you elaborate on the importance of the award and whether it is going to influence your future work in any way?

I heard the first time that I was among the awardees in December. My immediate response was that I felt deeply honored and humbled by the recognition the People's Republic of China has bestowed on me. I view this occasion as one of the great moments of my scientific carrier! So, this recognition was indeed important for me, because it shows that collaboration can turn into trust and friendship between people and institutions which come from a different cultural background. It will not really influence my future work, because I will just continue as I worked before. The difference is that now I know that the work is indeed appreciated.

The International Science and Technology Cooperation Award

In December 2013, eight foreign scientists (among them, three Europeans) received the state science and technology prize for international scientists. The State Science and Technology Awards are distributed every year in five categories that recognize scientists and their contributions in different areas – one of them aims at foreign researchers. A total of 87 foreign experts and one international organization have won the award since 1995.

Who are your main research partners in China? Can you tell us more about your collaboration and plans for the future?

The main contacts in China are people of the Chinese Academy of Sciences (CAS), in particular young Chinese scientists - both in China and abroad, who make excellent contributions to the acquisition of knowledge. As part of the Max Planck Society in Germany, I will continue to push ahead with our collaboration for our mutual benefit, in the service of science and with a view to our social responsibility for the development of our countries and the world. We should continue to learn from each other in friendship and trust, and I want to be part of this process.

In your experience, how has China's research landscape and attitude to research changed over the time you have been working with Chinese researchers?

My first contact with science and research in China was in the mid-eighties when I had the first Chinese student in my lab, as part of a collaboration with the Shanghai Institute of Biological Sciences (SIBS) of the CAS. It took him some time to put forward his ideas, telling me that he was used to do exactly what he was told. He worked hard, but did at first not develop his own ideas, because he was not used to and he was disappointed when he found out that the result was not as expected or even opposite to it, and he thought he did something wrong. With time he learned that it is not important that our expectations come true, but that we learn from the outcome of the experiments and that we have to adjust our hypothesis or models of how things work accordingly, and that this is our way as scientists to push the borders of knowledge slowly into the unknown. Now, things have changed completely: Chinese scientists and students are as creative as everywhere else, funding is superb in China, there is great political support and a strong commitment to quality oriented science both in fundamental, curiosity-driven research as well as applied sciences. And, most importantly, there is creative science and increasing self-confidence, meaning we have now partners at eye level.



MAX-PLANCK-GESELLSCHAFT

The Max Planck Society for the Advancement of Science is one of the world's best and most famous research organisations. Headquartered in Munich, the Society is a decentralized, non-profit organisation of 82 institutes and research facilities, five of which are located abroad, that focuses on basic research in all areas for the benefit of the society.

What obstacles can you personally see along the way of China becoming a global research and innovation powerhouse?

I see no obstacles any longer if China continues on its way that I experienced in particular during the last ten years. When I received the award, one of the Chinese officials said that Chinese science is still in its infancy, and that the country is still a student in science. If this is true, then China is the fastest learning student one can imagine! In all honesty, China is by now a powerhouse in research, and innovation that supports the benefit for people will come soon. The only obstacle I see is that like in all countries I know, the politicians are impatient and want to see too soon a return of investment. If they continue, however, to invest in ideas of the best scientists and give to those people the freedom to decide what they think is important in science, I have no doubts that China will be one of the front players in innovation in all fields of research helping to tackle the big problems of mankind: health, nutrition and energy supply.

Professor Jäckle, we thank you for the discussion!



3 EURAXESS Links Activities



EURAXESS Links China on Social Media: Join our network on Facebook, WeChat or LinkedIn

You can now follow EURAXESS Links China on various social media according to your location or preference.

Don't miss any of the latest news and daily updates about jobs, fellowships, funding, science policy and other pieces of information, and join our network on social media.

Whether in Europe, China or elsewhere, you can either like us on [Facebook](#) or follow us on WeChat (scan green QR code on the side of this message). You can also join our [LinkedIn group](#).

Our small team in Beijing wants to stay in touch with the needs of all EURAXESS Links China members. If any question or suggestion arises, do not hesitate to contact us via any of the above-mentioned social platforms, or via e-mail.

REMINDER: EURAXESS Links China Assessment Survey – Please let us know your views!

EURAXESS Links would like to hear from you how we can further improve our services to keep you updated about research collaboration and mobility opportunities.

Thank you very much for taking 3 minutes to complete our survey:
<https://secure.pt-dlr.de/pt-survey/index.php?sid=15663&lang=en>



4 News & Developments

4.1 EU & Multilateral Cooperation

‘Horizon 2020: Open to the World’ launch event for the International Community held in Brussels

The ‘Horizon 2020: Open to the World’ launch event took place on 12 December in Brussels and highlighted the openness of the new EU framework programme to researchers from around the world. At the invitation of Commissioner Geoghegan-Quinn and Maria Cristina Russo, RTD Director for International Cooperation, Ambassadors, Science Counsellors and Press Officers from more than fifty International Partner Countries had the opportunity to find out more about the largest new research and innovation programme in the world open to worldwide participation.

"Global solutions must be found to the global challenges that affect the people around the world" stressed Mr Wolfgang Burtscher, RTD Deputy Director-General. The attractiveness of Horizon 2020 is mostly evident through its international cooperation dimension. It encourages researchers' mobility in order to extend the frontiers of scientific knowledge, to increase global efforts in tackling societal challenges and to provide competitive industrial leadership.

The context of the new research and innovation strategy was well-defined by the personal experiences of three beneficiaries of European Commission grants: Dr Brian Wong (Marie Curie Fellow), Ms Zeinab M.C. El Sadr (Executive Director of the Research, Development and Innovation programme in Egypt) and Dr Eddy Moors (Professor and Researcher at the Wageningen University).

They all re-emphasized the importance of mobility in research and innovation.

Source: [European Commission's "International Research Update" January 2014](#)

EU and South Africa to step up cooperation in science, technology and innovation

The EU and South Africa will step up collaboration in the fields of global health research, earth observation and research infrastructures, senior officials agreed at a meeting in Brussels on Jan. 13. The 12th Joint Science and Technology Cooperation Committee meeting took place to review and plan new priorities of collaboration under the new EU research and innovation programme Horizon 2020 and similar South African research programmes.

In preparation for the second programme of the European and Developing Countries' Clinical Trials Partnership, the EU and South Africa will work together to mobilise broader African participation. The European Commission welcomed the commitment from South Africa to become a full contributing member of the



Photo: Participants to the "Open to the World" launch event for the International Community

For more information regarding the European Commission's international research cooperation activities worldwide, read the [European Commission's monthly "International Research Update"](#).



EDCTP General Assembly. The parties decided also to collaborate within the framework of the Global Research Collaboration for Infectious Disease Preparedness and continue to support work through respective funding programmes of the Global Alliance for Chronic Diseases.

In the context of the post-2015 strategy for the Group on Earth Observations (GEO) both parties will explore a possible joint action to support the AfriGEOSS initiative and Africa-EU GEO-related cooperation. In the domain of research infrastructures, the EU and South Africa will discuss synergies between the European Strategy Forum for Research Infrastructures (ESFRI) and the South African national research infrastructure roadmap. Cooperation in the area of radio astronomy will specifically be encouraged, including support for the Africa-European Radio-Astronomy Platform (AERAP).

Read more in source: [European Commission](#)



European Research Council

Established by the European Commission

ERC Consolidator Grants award €575 million to mid-career researchers

The European Research Council (ERC) has selected 312 top scientists on 14 January in its first Consolidator Grant competition. This new funding will enable the researchers to consolidate their own teams and to further develop their best ideas. Projects selected include: using a geochemical clock to predict volcanic eruptions, exploring the effects of Dark Matter and Dark Energy on gravitational theory, checking responsibility, liability and risk in situations where tasks are delegated to intelligent systems, and investigating the role of genetic and environmental factors in embryo brain wiring. Total funding in this round is €575 million, with an average awarded grant of €1.84 million, up to a maximum of €2.75 million.

The ERC calls target top researchers of any nationality based in, or willing to move to, Europe.

Among the different types of grant awarded by the ERC, the Consolidator Grant targets top researchers of any nationality and age, with over 7 and up to 12 years' experience after PhD, and a scientific track record showing great promise.

In this latest call, grants have been awarded to researchers of 33 different nationalities, hosted in institutions located in 21 different countries throughout Europe, with 9 of them hosting five grantees or more. In terms of host institutions, the UK (62 grants), Germany (43) and France (42) are in the lead. There are also researchers hosted at institutions in the Netherlands, Switzerland, Spain, Italy, Israel, Belgium, Sweden, Austria, Denmark, Finland, Portugal, Greece, Hungary, Ireland, Turkey, Cyprus, the Czech Republic and Norway. In terms of researchers' nationality Germans (48 grants) and Italians (46) are at the top, followed by French (33), British (31) and Dutch (27) researchers.

Over 3600 proposals were submitted to this ERC Consolidator Grant competition. The average age of the selected researchers is 39.



Around 45% of the grantees selected are in the domain 'Physical Sciences and Engineering', 37% in 'Life Sciences' and almost 19% in 'Social Sciences and Humanities'. The grantees were selected through peer review evaluation by 25 panels composed of renowned scientists from around the world.

Set up in 2007 by the EU, the European Research Council is the first pan-European funding organisation for excellent frontier research. From 2007 to 2013, under the seventh EU Research Framework Programme (FP7), the ERC's budget was €7.5 billion. Under the new Framework Programme for Research and Innovation (2014-2020), Horizon 2020, the ERC has a substantially increased budget of over €13 billion.

Read more in source: [European Commission](#)

Researchers' forecasts of Major scientific developments in 2014

Radical new treatments for cancer could be available in hospitals in 2014, while quantum computing could allow scientists to model chemical reactions at the atomic level for the first time – these are some of the predictions made by researchers in Horizon's poll of major developments this year.

The EU Research and Innovation magazine [Horizon](#) asked researchers who have previously featured in the magazine for their forecasts on the scientific developments that could have a major impact in 2014.

The answers ranged from aerial robots that could revolutionise the way warehouses are stocked, to new steel smelters that use less coal, and climate models that will enable scientists to be more confident in forecasts for rising sea-levels due to global warming.

Read more in this [Horizon article](#).

EU Research Highlight – Crystal clear solutions for low-cost and efficient solar power

Europeans have made it their mission to develop and use alternative sources of energy, like solar. But despite being clean and fairly easy to use, solar energy systems can be expensive. A team of European researchers has successfully increased the efficiency of the system's central component and cut production costs by more than half.

The project's development of sophisticated manufacturing technology for crystalline silicon photovoltaic modules was instrumental in helping the EU meet its 2010 targets on the costs of photovoltaic power.

The CRYSTAL CLEAR (Crystalline silicon photovoltaic: low-cost, highly efficient and reliable modules) project focused on crystalline silicon modules, which are used in around 9 out of 10 solar energy systems sold worldwide. The project partners focused on developing state-of-the-art manufacturing technologies that reduced the production cost of solar modules to around EUR 1 for each watt



Image of atoms and electrons. © Shutterstock/ Sergey Nivens



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produced. The achievement effectively reduces the cost of solar systems. The team also cut the amount of material needed to produce each module, further boosting their environmental profile.

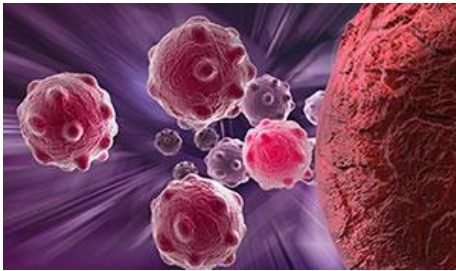
The CRYSTAL CLEAR project was split into seven sub-projects: feedstock, wafers, wafer-equivalent approaches, cell technology, modules, environmental sustainability, and integration. 'Feedstock' refers to the silicon that solar cells are made from, while research into 'wafers' focused on solar silicon material production and the 'wafering' of the materials through multi-wire slurry saving and diamond-wire cutting.

After assessing 'wafer-equivalent approaches', the team investigated and developed crystalline silicon thin-film solar cells. The resulting technologies can be produced at a lower cost than traditional wafers.

Advances in cell technology resulted in cell designs and production processes that decreased processing costs by 40 percent.

Find out more in source: [European Commission](#)

EU Research Highlight – Developing cutting-edge technologies that save lives



Belgian company Ion Beam Applications is developing and commercialising cutting-edge technologies and pharmaceutical and customised solutions in the field of oncology, used by some 3 000 hospitals worldwide. Its innovative proton therapy solution has been designed from the ground up to meet the needs of patients and clinicians. It is more affordable, easier to install and operate and offers a shorter time to first patient treated.

Every year 3.2 million Europeans are diagnosed with various forms of cancer. Although great advances continue to be made in research and treatment, the disease remains a serious health concern. The European Union has therefore taken action on various fronts to both save lives and improve cancer survivors' quality of life.

One such initiative saw the European Investment Bank (EIB) provide financing to Belgian multi-national Ion Beam Applications (IBA) for its research and development projects in the fields of cancer diagnosis and therapy. Headquartered in Louvain-la-Neuve and employing more than 1 200 people worldwide, IBA has installed systems across Europe and the US and is expanding into emerging markets.

IBA is heavily investing in proton therapy, which is considered by many as one of the most effective forms of non-invasive cancer treatments.

"Proton therapy is increasingly seen as the ultimate radiotherapy for cancer due to its superior dose distribution," says IBA's Chief Financial Officer Jean-Marc Bothy. "Higher doses can be delivered to the tumour without increasing the risks of side effects and long-term complications, improving outcomes and quality of life for patients," he explains.



Unfortunately, up until now, few patients have benefited from this type of treatment due to its high cost and size. However, thanks to the RSFF financing, IBA has gone some way to changing perceptions with its therapy.

The technology is bringing an affordable solution to the market and making proton therapy more accessible for more hospitals worldwide and therefore more patients.

“Physicians will be in a position to deliver the most effective clinical cancer treatment known as Intensity Modulated Proton Therapy to the benefit of patients. This new proton therapy system is not only simpler to install and operate, it is also more easily financeable,” adds Bothy.

Prototypes have already been developed and, according to Bothy, this cutting-edge technology will be available to hospitals worldwide as early as 2015.

Find out more in source: [European Commission](#)



EU Research Publication – Scientific evidence for policy-making: Research insights from socio-economic sciences and humanities

This publication compiles a set of short policy papers developed by the EU-funded project SCOOP (2009-2012), aimed at strengthening the links between research and policy making in Europe. The collected papers summarise the findings of EU-funded research projects in the field of social sciences, formulating research results in a way that targets policy makers, civil society organisations, business and the media.

Presented in reverse chronological order, the papers address key challenges regarding the social, economic, political and cultural make-up of Europe. The subjects covered are: Growth, employment and competitiveness in a knowledge society; Combining economic, social and environmental objectives in a European perspective; Major trends in society and their implications; Europe in the world; The citizen in the European Union; Socio-economic and scientific indicators: Foresight; Strategic activities.

Download the report for free from the [European Commission's website](#).



4.2 EU Member States*, China & Bilateral Cooperation

Denmark - Danish Minister for Transport visits China, discusses sustainable and green transportation, promotes investment opportunities in Denmark

The Danish Minister for Transport visited Beijing on 20 – 22 January 2014 to discuss sustainable and green transportation as well as promoting close cooperation between Denmark and China.

The Minister had a very good meeting with her counterpart in the Chinese Ministry of Transport Mr Yang Chuantang and various Chinese transport-related authorities to discuss how to develop more sustainable ways of transport in both China and Denmark. The discussions touched upon topics such as railways, high speed trains, roads, green ports, the use of bicycles in urban environment and large scale infrastructure investments in Denmark and China.

Increased cooperation on air traffic and flight connections between China and Denmark was also an important topic addressed by the Minister, while green ports and a sustainable development of the maritime sector was discussed at several occasions throughout the visit.

Finally, following the decision by the Danish government in mid-January 2014 to provide funding for massive investments (up to 3.8 billion Euro over the next decade) in Danish infrastructure and transportation for new railways, electric trains, high speed trains and bridges, the minister met with companies to discuss investment opportunities as well as options to participate in the bidding for the projects in fair competition with other companies.

Further details in source: [Denmark in China](#)

Denmark - Minister of Climate visited China

From the 6th – 9th of January the Minister of Climate visited China and met with NDRC Vice Chairman Xie Zhenhua as well as Vice-Minister Liu Qi in NEA, Governor Chen Zhigao of Liaoning province, Mayor of Harbin Song Xibin and Deputy Mayor Zhao Yufu in Anshan.

Throughout the visit the delegation was met with ambitions for a more sustainable energy production and utilization in China, as well as genuine interest in Danish energy policy and a broad recognition of the value of Sino-Danish cooperation.

Further details in source: [Denmark in China](#)

* Including countries associated with the 7th Framework Programme.



Christian AMATORE – Source:
La France en Chine

France – New French member of the Chinese Academy of Sciences

Mr Christian Amatore, research director at CNRS and French director of the Sino-French « XiamENS Nanobiochem » joint laboratory has become the seventh French national to join the prestigious Chinese scientific institution.

The election to become member of CAS is taking place every 2 years. Around 50 candidates have been selected in this latest election (2013) out of 400 applications from Chinese scientists. The average age of the new members is 53 with the youngest of them being 45 years old.

In addition to the Chinese members, CAS also regularly admits foreign scientists, in recognition of outstanding work done in collaboration with China.

Nine foreign members have been elected in 2013: four Americans, one Brazilian, one Danish, one French and one Indian. After this election, CAS has now 72 foreign members, including seven French, among its 822 members.

Read more in source: [La France en Chine](#)

France – Sino-French Foundation for Science and its Applications (FFCSA) seminar held in Harbin

The sixth edition of this seminar, organized by Professor SUN Jinwei, took place at the Harbin Institute of Technology on 11 January, 2014 and tackled various scientific fields and research topics. Professor Laurent Degos, president of the scientific committee of the FFCSA and Mr LI Hong, Europe-Asia-Africa Director of the China Scholarship Council (CSC) attended and opened the event.

The FFCSA, through exchanges with the Chinese Academy of Sciences and in cooperation with the CSC, promotes and organizes exchanges of post-doctoral researchers between France and China. These exchanges of young researchers are supported by French companies, research institutes and French regional authorities.

Since 2002, 150 Chinese post-docs have benefited from this programme. After having been selected by the French jury, they went to France to do internships in top research laboratories, which proved a valuable experience to develop their careers back in China.

The seminar was also the occasion to award the Gilles Khan prize 2013 to Prof. XIE Gaogang from the CAS Institute of computing Technology, for his work on internet. The Gilles Kahn prize is funded by the company Total.

Read more in source: [La France en Chine](#)



Sweden – New Sino-Swedish Study on Migrant Workers in China released

Labour shortages and high staff turnover rates are giving responsible businesses plenty of reasons to reconsider their corporate social responsibility (CSR) and supply chain management strategies. 80% of migrant workers with left-behind children and 50% of those having children with them, feel 'inadequate'. They also experience strong guilt and anxiety as a result of failure to provide for their children's basic well-being and education.

This is one of the findings in a new research study carried out by the Center for Child-Rights and Corporate Social Responsibility (CCR CSR) in cooperation with the Beijing Culture & Communication Center for Facilitators (Facilitator) and supported by the CSR Centre of the Embassy of Sweden in Beijing.

The study that was conducted in the summer of 2013 included in-depth interviews and a quantitative survey among over 1500 parents, left-behind children and local business actors.

More information and access to the full report can be found on the [Sweden Abroad website](#).

Sweden – Swedish Ambassador for Climate Change on visit to China

The Swedish Ambassador for Climate Change and Sweden's chief negotiator in the climate field, Ms Anna Lindstedt, visited Beijing from 13 to 17 of January. The Ambassador had bilateral meetings with Chinese counterparts and participated in a seminar on Short Lived Climate Pollutants.

This visit was a follow-up to the [Minister for the Environment, Ms Lena Ek's visit to Beijing in 2013](#), which paved the way towards a deepened Sino-Swedish cooperation on climate issues.

Sweden has a deep commitment to the issue of SLCP and is pushing the issue in the Arctic Council and the Climate Clean Air Coalition.

SLCP are particles that, as opposed to greenhouse gases, only stay in the atmosphere for days or weeks. The main components are coal and ozone. The SLCP issue is therefore closely related to air pollution and the problems that China is dealing with in that area. Discussions on a deepened Sino-Swedish collaboration in the field were initiated when the Swedish Minister for the Environment visited China last year. This month's jointly organized seminar was a concrete result of the discussions.

Further details in source: [Sweden Abroad](#)



5 Grants & Fellowships

5.1 Call announcements for international researchers

Belgium – Odysseus programme

The Odysseus programme supports outstanding researchers who have built up a career outside Flanders. The programme provides start-up funding in order to develop a research group within a Flemish university or to set up a research line and become progressively more involved in the Flemish research establishment.

What makes this programme unique is the combination of a permanent position at a Flemish university and sufficient project funding to establish your own research team. The subsidy is spread over 5 years.

The subsidy is used for two types of start-up funding:

Odysseus Group I - for researchers who are internationally recognised as pioneers in their field and who already have a position at a foreign university.

Research funding: €400,000 to €1,500,000/year (€2,000,000 to €7,500,000 for the 5-year period)

Odysseus Group II – for researchers who have at least 3 years' post-doctoral experience abroad and whose work has convinced leading colleagues in the field that they have potential to develop a leading international position.

Research funding: €100,000 and €200,000/year (€500,000 to €1,000,000 for the 5-year period)

The next application deadline is **15 May, 2014**.

Further details are available on the [FWO website](#).

China – Chinese Academy of Agricultural Sciences Elite Youth Programme

Founded in 1957, the Chinese Academy of Agricultural Sciences (CAAS) is a national, integrative agricultural scientific research institution with the responsibility of carrying out both basic and applied research, as well as the development of new and advanced technology.

CAAS is eager to recruit talents to support such development. The Elite Youth Program is a recruitment program for outstanding young, creative academic talents, with a focus on attracting top researchers, particularly those from overseas.

A start-up research fund of no less than 1 million Yuan (US\$161,000) will be provided by the relevant CAAS-affiliated institute during the one-year probationary period.



After completing the one-year probation and being officially recruited, the candidate will receive an additional research grant award of 2 million Yuan (US\$322,000) and equipment procurement monies of 1 million Yuan (US\$161,000), funded by CAAS headquarters.

This is a permanent call. Find out more about this new programme on the [CAAS website](#).

China – NSFC Call for Proposals for the First Round of the International Young Scientists Fellowship in 2014

This scheme is for excellent international young researchers to work for six or twelve months in a Chinese university or research institute. All candidates are recommended by the Chinese host organisation. They must have obtained a PhD, have more than three years of basic research or post-doctoral experience, and must be aged under 35 as at 1 January of the year of application.

Grants of 100,000 RMB for 6 months or 200,000 RMB for one year are awarded by the Natural Science Foundation of China (NSFC). This funding is for research expenses only. The host organisation is responsible for covering living costs, insurance, research facilities etc.

Two application rounds are held each year.

Here is the timetable of the first round in 2014:

Recommendation deadline: **28 Feb., 2014.**

Notice for acceptance: 5 March, 2014. Applicants whose proposals are accepted will be announced on NSFC's website.

Individual full proposal submission period: **from 21 March until 4 April, 2014.**

Funding period for both types of grants (6 months and 12 months) will start on 1st of July, 2014.

Recipients of last year's fellowships will be able to apply for funding extension also between **21 March and 4 April, 2014.**

Further details can be found on the [NSFC website](#).

EU – EMBO Long-Term Fellowships

The EMBO (European Molecular Biology Organization) Long-Term Fellowships are awarded for a period of up to two years and support post-doctoral research in **life science** visits to laboratories throughout Europe and the world. International exchange is a key feature in the application process.

All fellowships must involve movement between countries. The receiving institute or the applicant's nationality must be from one of the [EMBC Member States](#).

Fellowships may be awarded for a period of up to 24 months, depending on a positive interim request from the host supervisor.



Applicants must hold a doctorate degree or equivalent at the start of the fellowship.

Applicants who already hold a PhD degree at the time of application are eligible to apply only if they passed their PhD exam in the two years prior to the respective application deadline

Applicants must have at least one first author publication accepted in press or published in an international peer reviewed journal at the time of application.

All applications must involve movement between countries. The receiving institute or the applicant's nationality must be from one of the EMBC Member States.

Applications to go to the country in which the PhD was obtained will not be considered.

All applications must be started before Monday, **10 February 2014**, 14:00 Central European Time, and completed before 14 February (same time).

Further details can be found on the [EMBO website](#).

EU – ERCIM "Alain Bensoussan" Fellowship Programme

The Fellowship Programme enables bright young scientists from all over the world to work on a challenging problem as Fellows of leading European research centres in the fields of **applied mathematics, computer science and information technology**.

Fellowships are for a visit of 12 months, spent in one of the [ERCIM institutes](#).

Applicants must have obtained a PhD degree during the last 8 years (prior to the application deadline) or be in the last year of the thesis work with an outstanding academic record.

The fellows are appointed for 12 months either by a stipend (an agreement for a research training programme) or a working contract. The type of contract and the monthly allowance for stipends or salary for working contracts depend on the hosting institute.

Find out more on the [dedicated website](#). Next application deadline is **30 April, 2014**.

EU/Switzerland – PLANT FELLOWS

PLANT FELLOWS is an international post-doc fellowship programme in plant sciences co-funded by the European „Marie Curie Action“ COFUND and centrally managed at the Zurich-Basel Plant Science Center, a competence center of three Swiss universities: University of Zurich, University of Basel and ETH Zurich.

This post-doc fellowship programme is open to applicants from any nationality and **all research fields in plant sciences** are eligible. More than 20



international universities, research institutions and industry partners have been approved as host organisations.

It is offering more than 60 new post-doc positions with a duration between 12 and 24 months, spread between three different mobility schemes (incoming, outgoing, reintegration).

Additionally, PLANT FELLOWS offers a structured training programme (workshops, dedicated training in complementary skills, industrial placements).

Applicants must, at the time of recruitment be in possession of a doctoral degree or have at least four years of full-time equivalent research experience.

The fourth call is now open from January 7th 2014 until **March 31st 2014**.

Further details are available on this [dedicated website](#).

France – ‘Discovery China’ programme

The goal of this new programme is to allow French researchers to deepen their knowledge of research conducted in –mainland- China in their fields of interest and expertise. All research fields (including social sciences) are covered by this programme.

The call for proposals is open to researchers affiliated to higher education institutions, research organisations and R&D departments of companies.

The selected candidates will receive a grant of up to 4000 euros to fund their mobility to and stay in China.

This scheme does not fund the set-up of partnerships (other programmes such as the Cai Yuan Pei and Xu Guanqi ones (see below) are relevant for that matter).

Proposals can be submitted as a single individual or as part of a research group (in that case each member of the group will still have to submit an applications indicating that it is part of a group application).

The deadline to submit proposals is **1 March, 2014**. Proposals to be funded will be selected by the beginning of April 2014 and the missions in China can start immediately thereafter.

More details are available on the [Campus France website](#).

France – Cai Yuanpei 2014 – NEW APPLICATION DEADLINE

Created by the Chinese Ministry of Education and the French Ministries of Foreign and European Affairs and of Higher Education and Research, the Cai Yuanpei program aims at fostering the exchanges of PhD students and their supervisors and related post-docs between the 2 countries.

Research cooperation projects between French and Chinese research teams will be selected and financial support for the travels and stays in the partner country will be provided for 2 full years (June 2014-June 2016).



Each project should involve 8 people (4 on each side) including one or two PhD works and students on each side. **All research fields are eligible**, including Human and Social Sciences. About 20 new projects are expected to be supported each year.

The deadline to submit applications has been extended until **2 March, 2014**.

More details are available on the [Campus France website](#).

France/Germany – 8th Franco-German call in Social Sciences and the Humanities

The ANR and the German Research Foundation (DFG) are launching a Franco-German call for proposals in Social Sciences and Humanities.

This call aims to fund research projects involving at least one French and one German team, over a period up to 3 years. It is open to all research areas within the SSH. **Thematically, the research projects don't necessarily have to relate to Franco-German objects and/or field researches.**

Funding requests are subject to each agency's requirements, rules and procedures, as stated in the call for proposals. DFG and ANR will be respectively responsible for funding their national research teams: DFG will fund German research organizations and ANR will fund French ones.

Application deadline is **10 April, 2014**.

More details are available on the [ANR website](#).

Ireland – Irish Research Council Postdoctoral Fellowships 2014

The Irish Research Council has opened the 2014 call for the Government of Ireland Postdoctoral Fellowship Scheme, the Enterprise Partnership Scheme Postdoctoral Fellowship and the International Career Development Fellowship, co-funded by Marie Curie Actions (ELEVATE Fellowship).

Government of Ireland Postdoctoral Fellowship Scheme

Intended to support suitably qualified applicants at an early stage of their postdoctoral career to associate with established research teams who have achieved international recognition for their work, these Fellowships can be held for either one or two years.

Enterprise Partnership Scheme Postdoctoral Fellowship

An innovative initiative where the Council links with an Enterprise Partner to award co-funded Postdoctoral Fellowships to highly promising researchers in Ireland for a period of 2 years. By working closely with an Enterprise Partner, Fellows benefit from an enhanced research experience as well as having the opportunity to learn key transferable skills relevant to career formation.

ELEVATE Fellowship



The aim of the ELEVATE Fellowship scheme is to fund for a period of 3 years Irish-based experienced researchers who have gained most of their research experience in Ireland so that they can acquire new skills and expertise while conducting high-level research abroad for two years and then return to Ireland for one final year with their newly acquired knowledge and expertise.

Application deadline is **11 February, 2014**.

Further details are available on the [IRC website](#).

Portugal – FCT PhD programmes

With the call for funding for FCT PhD Programmes, FCT aims to promote graduate training of the highest quality in Portugal and contribute to establishing close collaborations between higher education institutions (HEI), R&D Units and industry.

Following the 2012 FCT PhD Programmes, in which 58 proposals were recommended for funding, FCT opens the second edition of this programme.

FCT PhD Programmes may be of three types:

- National: should involve at least one HEI and one research institution registered with FCT (both Portuguese);
- International: should involve at least one HEI and one research institution registered with FCT (both Portuguese) and an overseas HEI or R&D institution
- Industry setting: should involve at least one HEI, one research institution registered with FCT (both Portuguese) and one industrial partner with significant R&D activity.

FCT PhD Programmes include PhD Studentships, national or mixed, and Bolsas de Investigação Científica – BIC. Supplementary support for courses may also be provided for laboratory rotations or other types of fieldwork deemed essential to the fulfilment of the aims of the Programme, up to a maximum amount of one hundred thousand euros for the duration of the Programme.

Portuguese higher education institutions, overseas higher education institutions, overseas and Portuguese private or public research institutions (including research units, associated laboratories, state laboratories), industry and other private or public institutions with legal standing may apply to set up an FCT PhD Programme.

Only Portuguese HEI and Portuguese research institutions registered with FCT may apply as Proponents. Industry, overseas HEI and overseas research institutions may apply as Participants.

The call for proposals is open from 9 January 2014 until 5pm, Lisbon time, of **24 March 2014**.

Further details are on the [FCT website](#).



Sweden – Initiation Grants

The purpose of STINT's (Swedish Foundation for International Cooperation in Research and Higher Education) activity is to strengthen the competitiveness of Swedish universities and colleges through the development of international relationships.

Initiation grants are given for the implementation of short-term projects targeting the building of new and strategically interesting international relationships.

Applications may be submitted continuously throughout the year. The next assessment date of received applications is **8 April, 2014** and applications to be assessed should be sent by that date at 3pm.

Further details can be found on the [STINT website](#).

Switzerland – Sino-Swiss Science and Technology Cooperation 2013–2016 -

The Sino-Swiss Science and Technology Cooperation (SSSTC) program was established in 2003 after the signing of a memorandum of understanding (MoU) between the then Swiss State Secretariat for Education and Research (SER) and the Chinese Ministry of Science and Technology (MOST). This MoU has since, through the SSSTC program, served as a foundation for intensified research collaboration between Swiss and Chinese scientists. During the first active phase of the SSSTC (2008- 2012), nearly 200 collaborative projects have been awarded and some of them are still ongoing.

Aside from the JRP programme funding joint research projects (*see announcement below*), budget has been allocated for other funding instruments under the SSSTC program. These instruments are:

- **Stepping Stone Symposia or other Workshops:** This shall be an instrument to provide a platform where Swiss and Chinese researchers can explore one another's willingness to collaborate, and/or have in-depth discussions of future collaborations.
- **Exchange Grants (EG):** Provide funding for personnel exchanges, which shall enable future research collaborations.
- **Research-innovation Communities (RiC):** This instrument shall broadly connect Swiss researchers of a given research field (or with similar goals in engaging Chinese partners) to allow efficient use of one another's resource in China. Synergy creation is an important goal of the instrument.
- **Follow-up Grants:** Provide means to bring otherwise successful SSSTC projects to conclusion.

The deadline to apply to any of these funding instruments is **30 March, 2014**.

Learn more about the eligibility criteria and application procedure on the [SNSF website](#).



Switzerland – Sino-Swiss Science and Technology Cooperation (SSSTC) 2013–2016 - Joint Research Projects

In the context of the Sino-Swiss Science and Technology Cooperation (SSSTC), the SNSF and the Ministry of Science and Technology of the People's Republic of China (MoST) have issued a call for Joint Research Projects. Support is envisaged for 10-15 projects.

Joint Research Projects (JRPs) allow researchers in Switzerland to collaborate with a partner in China. JRPs can last up to three years and receive funding of up to CHF 250,000 from the SNSF. The project grants cover similar costs as national SNSF projects (equipment, research funds and salaries).

The call concerns projects in the following area:

- **Translational biomedical research and medical technology**

The call for proposals is open from 6 January 2014 to **31 March, 2014**.

Applications must be submitted to the SNSF via the mySNF platform and to the MoST. For more detailed information, please refer to the [SNSF website](#).

UK – Royal Society International Exchanges Scheme

This scheme is for scientists in the UK who want to stimulate new collaborations with leading scientists overseas through either a one-off visit or bilateral travel and this scheme is intended to stimulate new collaborations between scientists in the UK and overseas.

The scheme covers all areas of the life and physical sciences, including engineering, but excluding clinical medicine.

Both the UK applicant and overseas applicant must:

- have a PhD, or be likely to have a PhD by the time the funding starts
- hold a fixed or permanent contract at an eligible organisation for the duration of the project (ineligible organisations include industrial, private and commercial organisations, university spin-out companies, government bodies and research institutes and research councils)
- be based in the respective countries at the time of the application.

Collaborations should be based on a single project and travel can only take place between the UK and a country where the overseas collaborator is based.

The next application deadline is **13 March, 2014**. Further information can be found on [Royal Society website](#).

With certain countries so-called „cost-share“ programmes are in place, under which funding is provided by the Royal Society and by funding bodies of the country of the overseas applicant. Such a programme with China exists in partnership with the NSFC (not currently open).



UK – EPSRC-NSFC Call for Collaborative Research between UK and China

The EPSRC Engineering Theme wishes to develop collaborative projects between researchers from the UK and China in partnership with the National Natural Science Foundation of China (NSFC) in the area of 'Sustainable Materials for Infrastructure' under the following themes:

- Multi-functional materials
- Energy efficient buildings
- Novel concrete technologies
- Materials 5R; Reduce, Recover, Reuse, Recycle and Retain.

Up to £3M is available across the theme areas from the EPSRC Engineering Theme with matched equivalent resources from NSFC (up to 2M RMB per project). It is expected that up to 6 proposals will be funded.

Proposals submission deadline is **19 February, 2014**.

Further details are available on the [EPSRC website](#).

UK – UK-China Stem Cell Partnership Initiative, NSFC-MRC joint call

The British Medical Research Council (MRC) and the National Natural Science Foundation of China (NSFC) invite proposals to the UK-China Stem Cell Partnership Initiative from high quality research teams based in the UK and China. The initiative will provide funding for collaborative research projects, focussed on basic and preclinical research of relevance to the longer term development of stem cell based therapies for human disease and disorders.

This scheme is launched following the success of the UK-China Stem Cell Partnership Development Initiative, which funded nine pilot awards in 2012. This demonstrated the strength and breadth of stem cell research in both countries, and the potential for establishing fruitful collaborations.

This second phase of the partnership initiative aims to provide additional and substantive support for joint Chinese and UK working in the area of stem cell research. The objective is to deliver significant 3-year research funding (starting on 1 January, 2015) for internationally competitive and innovative collaborative projects between scientists from China and the UK that will allow the pursuit of shared research interests.

MRC will provide funding for the UK applicants under standard arrangements and at 80% FEC. Up to £2 million is available from MRC, which it is anticipated will provide funding for up to five research projects, subject to quality.

NSFC will provide funding for the Chinese applicants; up to 3 million RMB is available for each successful award under this initiative.

The submission deadline is **7 May, 2014**.

UK applicants can find more details on the [MRC website](#). Chinese applicants are invited to visit the [NSFC website](#).



UK – UK-China partnerships in sustainable manufacturing

Engineering and Physical Sciences Research Council (EPSRC), the Technology Strategy Board and China's Ministry of Science and Technology (MOST) are to invest up to £3m in collaborative R&D projects that make manufacturing processes more sustainable.

The aim of this competition is to help UK academics to work with academic or industrial partners in China, and UK businesses to trial new processes with Chinese manufacturers.

Proposals must be collaborative, and must include both a Chinese and a UK applicant. Project partners can include academics and research and technology organisations, as well as companies, and they can be business-led or researcher-led.

Call closes on **26 March, 2014**.

Find out more on the [EPSRC website](#).

UK – Newton Fellowships

The Newton International Fellowships Scheme is delivered by the British Academy and the Royal Society. It has been established to select the very best early stage post-doctoral researchers from all over the world and enable them to work at UK research institutions for a period of two years. The scheme covers researchers in all disciplines covered by the two academies: **physical, natural and social sciences and the humanities**.

The Newton Fellowships provide grants of £24,000 per annum to cover subsistence and up to £8,000 per annum to cover research expenses, plus a one-off relocation allowance of up to £2,000.

In addition, Newton Fellows may be eligible for follow-up funding of up to £6,000 per annum for up to 10 years following the completion of the Fellowship.

The next round for applications to the Newton International Fellowship scheme opened on 15th January 2014, and will close on **10th March 2014**. Final results will be announced in October 2014.

Find out more on the [dedicated website](#).

5.2 Calls still open

Calls first announced in [previous editions of the newsletter](#)

**Austria – Marietta Blau Grant**

The next closing date for application is **1 February, 2014** (Selection/interviews in June, Take-up of the grant as of August 1).

Find out more [here](#).

Belgium – Pegasus Marie Curie Fellowships (short)

The next deadline for application is **1 February, 2014**.

Further details are available on the [FWO website](#).

Switzerland – Swiss National Science Foundation (SNSF) Advanced Postdoc.Mobility

The next deadline for application is **1 February, 2014**.

Find out more on the [SNSF website](#).

Belgium – FWO Ph.D. fellowship

The next application deadline is **3 February, 2014**.

Find out more about this programme on the [FWO website](#).

Belgium – FWO Postdoctoral fellowship

The next application deadline is **3 February, 2014**.

Find out more about this programme on the [FWO website](#).

France – Xu Guangqi 2014

Deadline to submit application for the 2014 call is **3 February 2014**.

More details are available on the [Campus France website](#).

Luxembourg – ATTRACT 2014

Application deadline for the 2014 call is **3 February 2014**.

Access the call on the [FNR website](#).

Switzerland – Swiss National Science Foundation (SNSF) Ambizione

The next submission deadline is **24 February, 2014**.

Find out more on the [SNSF website](#).



Belgium – Return Grants for Researchers Working Abroad

The call for proposals for the selection 2014 is now open. The deadline is **February 28, 2014**.

More details are available on the [Belspo website](#).

Austria – Richard Plaschka Scholarship

The closing date for applications is **1 March, 2014**.

Further details are available [here](#).

Austria – Ernst Mach Grant – worldwide

Deadline to apply for the academic year 2014-2015 is **1 March, 2014**.

Further details and access to the online application portal are available [here](#).

Switzerland - Swiss National Science Foundation (SNSF) Doc.Mobility and Early Postdoc.Mobility

The next deadline for application is **1 March, 2014**.

Find out more on the [SNSF website](#). ([here for the Early Postdoc.Mobility](#))

EU – Erasmus Mundus 2014 Call for proposals Action 2

Deadline for submission of applications is **3 March, 2014**.

Access the call on the [Erasmus Mundus website](#).

EU – CERN Fellowship and GET Programmes

Application deadline is **3 March, 2014** (for a start on 1 July, 2014).

Further information is available on the [CERN website](#).

Luxembourg – FNR AFR PhD and Postdoc Grants

Deadlines to submit application are **20 March, 2014** for the PhD grant and **11 March, 2014** for the Postdoc grant.

Find out more details on the [FNR website](#).



UK – DFID-ESRC China and Africa research programme

The full specification and other relevant documents can be found below. Deadline for applications is **13 March, 2014**.

Further details are available on the [ESRC website](#).

UK – Royal Society Research Professorship

The closing date for application to this scheme is **13 March, 2014**.

Further details can be found on the [Royal Society website](#) as well as on the [NSFC website](#).

Netherlands – Cooperation China - Joint Scientific Thematic Research Programme (JSTP) - Dialogue Seminars

Closing date for submitting Dialogue Seminar proposals is **26 March 2014**, 11:00am CET.

More details are available on the [NWO website](#).

EU – Dragon-Star Innovation Award – call for application

Deadline for application is **31 March, 2014**.

Find out more about the [eligibility criteria](#) and download the [Innovation Award application form here](#).

More details available on the [Dragon Star project website](#).

5.3 Open calls under CIP and FP7

The following calls are open under the [Cooperation](#) programme

- [Joint Technology Initiatives](#) / 3 open calls (Deadlines 28 Feb., 3 April, 8 April respectively)

The following call is open under the [Capacities](#) programme

- [Support for the coherent development of research policies](#) / 1 open call (Deadline 15 April)

The following call is open under the [Entrepreneurship and Innovation Programme \(EIP\)](#)

- [Transfers of Business](#) / 1 open call (Deadline **5 March**)



5.4 Open calls under Horizon 2020 and Euratom

Access all open calls on the [Horizon 2020 Participants' portal](#).

Excellent Science programme

22 open calls including:

- European Research Council:
 - [ERC Consolidator Grant](#) – Deadline **20 May, 2014**
 - [ERC Proof of Concept Grant](#) – Deadline **1 April, 2014**
 - [ERC Starting Grant](#) – Deadline **25 March, 2014**
- Marie Skłodowska-Curie actions:
 - [Marie Skłodowska-Curie Research and Innovation Staff Exchange \(RISE\)](#) – Deadline **24 April, 2014**

Industrial Leadership

[41 open calls](#)

Societal Challenges

76 open calls including the following ones particularly encouraging collaboration with China (*however, it should be kept in mind that all calls are open to Chinese participation!*):

[SFS-01a-2014: Genetics and nutrition and alternative feed sources for terrestrial livestock production](#) – Deadline **12 March, 2014**

[SFS-03b-2014: Practical solutions for native and alien pests affecting plants - EU-China cooperation on IPM in agriculture](#) – Deadline **12 March, 2014**

[SFS-04-2014: Soil quality and function](#) – Deadline **12 March, 2014**

[SFS-13-2015: Biological contamination of crops and the food chain](#) – Deadline **24 February, 2015**

[LCE-18-2014: Supporting Joint Actions on demonstration and validation of innovative energy solutions](#) – Deadline **7 May, 2014**



[MG-1.8-2015: International cooperation in aeronautics](#) – Deadline **31 March, 2015**

[MG.5.5-2015 Demonstrating and testing innovative solutions for cleaner and better urban transport and mobility](#) – Deadline **27 August, 2015**

[WASTE-2-2014: A systems approach for the reduction, recycling and reuse of food waste](#) – Deadline **8 April, 2014**

[WASTE-7-2015: Ensuring sustainable use of agricultural waste, co-products and by-products](#) – Deadline **16 October, 2014**

[WATER-5a-2014: Strategic cooperation partnerships](#) – Deadline **8 April, 2014**

[INT-01-2014: Enhancing and focusing research and innovation cooperation with the Union's key international partner countries - proposals targeting Russia and China](#) – Deadline **29 April, 2014**

[INT-11-2014/2015: European cultural and science diplomacy: exploiting the potential of culture and science in the EU's external relations](#) – Deadline **1 July, 2015**

[BG-15-2014: European polar research cooperation](#) – Deadline **26 June, 2014**

Science with and for society

9 open calls including the following one including China in its scope:

[ISSI-5-2014: Supporting structural change in research organisations to promote Responsible Research and Innovation](#) – Deadline **2 October, 2014**

[ISSI .5.2015: Supporting structural change in research organisations to promote Responsible Research and Innovation](#) – Deadline **16 September, 2015**

Euratom

[2 open calls](#)



6 Jobs

Access thousands of jobs and fellowships announcements on the [EURAXESS Jobs portal](#).

6.1 New job announcements

USA – EURAXESS Links Regional Representative North America (Washington D.C.)

DLR Project Management Agency (PT-DLR) is looking for a EURAXESS Links Regional Representative in Washington, D.C., USA. The incumbent shall support European researchers living in North America (USA and Canada) and non-European researchers in North America who are interested in an academic career in Europe with information and advice on issues related to EU research cooperation.

For this position professional language skills in English, a university degree at the MA/MSc-level of at least four years' duration and proof of at least three years of relevant professional experience in the field of project management of which at least one in EU affairs are prerequisite.

PT-DLR offers the selected RR a Service Contract according to the German Law with duration of one year (April 2014 – March 2015) which can be extended until Dec 2015 according to the RR's performance. Remuneration is negotiable depending on the qualification and work experience (210 work days per year).

The deadline to apply is **10 February 2014**.

Find out more about this announcement on [EURAXESS Jobs](#).

China – Faculty Positions in School of Life Science and Technology, ShanghaiTech University (Shanghai)

ShanghaiTech University is a newly established research university located at Zhang-Jiang High-Tech Park in Pudong, Shanghai, China. Currently, it has four schools and two advanced research institutes: School of Physical Science and Technology (SPST), School of Information Science and Technology (SIST), School of Life Science and Technology (SLST), School of Entrepreneurship and Management (SEM), Shanghai Institute for Advanced Immunochemical Studies (SIAIS), and iHuman Institute (iHuman). The new University is jointly supported by Chinese Academy of Sciences and Shanghai Municipal Government.



School of Life Science and Technology (SLST) is currently seeking applicants for tenure-track and tenured positions at all ranks in the following academic disciplines: **Protein science and biotechnology; Stem cell research and regenerative medicine; Systems biology and translational medicine; Physical biology and molecular imaging; Chemical biology and innovative pharmacology.**

University will provide internationally competitive start-up fund plus support of Research Associate and Post-Doctoral fellows. Laboratory space will be provided matching the research needs.

Salary is competitive and commensurate with experience and academic accomplishments. ShanghaiTech also offers a comprehensive benefit package including housing benefits.

The successful candidates should have an exceptional track record of research in life sciences or a closely related discipline within the last five years. Besides maintaining an active research program, the recruited candidates will also be expected to contribute to the educational missions of undergraduate and graduate programs within SLST.

Review of applications will continue until positions are filled.

For more information, see the full announcement on naturejobs.

China – Immunology Postdoctoral Position at Shanghai Jiaotong University School of Medicine, Shanghai Institute of Immunology (Shanghai)

A postdoctoral position will be open in the research group of Dr Gonghua Huang starting February 2014. The research projects aim to study the development, differentiation and immunoregulatory effects of the immune cells, develop infectious disease and novel autoimmune disease models and study the molecular mechanisms underlying how dendritic cells regulate the differentiation and function of T cells and the role of dendritic cells in shaping the immune response and in the autoimmune diseases.

The postdoctoral candidate will have recently acquired a Ph.D. preferably in immunology with good knowledge of molecular and cellular immunology techniques. The research project requires experience with handling mice. Strong background in signalling pathways is desirable and strong expertise in flow cytometry is necessary. Candidate should be self-motivated and career-oriented.

This announcement expires on **20 March, 2014**.

Access the full announcement on naturejobs.

China – Center Directorships, Multiple Vacancies for Open-Rank Tenure-Track Faculty, and Postdoctoral Research



Fellows at Frontier Institute of Science and Technology, Xi'an Jiaotong University (Xi'an)

Frontier Institute of Science and Technology (FIST) is a large selective investment by Xi'an Jiaotong University (XJTU) in an effort to establish a world-class, multi-disciplinary research institute.

To achieve this goal, FIST is setting up a number of research centers of excellence in **Mathematics, Physics, Chemistry, Bio-Science/Life-Science/Basic-medical-Science, and Materials Science**, and adopts a new management system similar to that of most U.S. universities. 10 planned centers have been established recently, and FIST is now recruiting the remaining Center Directors. In addition, FIST invites applications to fill its multiple, full-time tenure-track faculty positions at all levels (from lab director to group leader), as well as postdoctoral positions.

An eligible candidate for the Center Director position should be an internationally renowned scientist and established leader in his/her field, with the ability and will to build his/her center into an internationally recognized center of excellence. Successful candidates will be provided with a sizable start-up package to establish a research center, together with a highly competitive salary.

In addition to the Center Director positions, FIST also invites applications in the above-mentioned areas to fill its tenure-track faculty positions at all levels, from lab director to group leader. Applications for postdoctoral positions are also welcome. An eligible faculty candidate should have a track-record for excellence in research and the potential to lead a lab or a group to success.

This announcement expires on **24 March, 2014**.

Access the full announcement on naturejobs.

6.2 Announcements still running

China – CEFC Researcher and director of the Sino-French Academic Center (Beijing)

The French Centre for Research on Contemporary China (CEFC) invites applications for a Researcher position, based in Beijing, as director of the Sino-French Academic Center (two-year expatriation contract, renewable once). Applicants must hold a PhD in the humanities or social sciences and be confirmed academics with a strong research track record on contemporary China.

Start date: from 2 May 2014.

The position is restricted to citizens of member countries of the European Union, preferably holding an academic or research position.



EU – Doctoral and senior researchers positions at the Joint Research Centre

The European Commission's Joint Research Centre (JRC) is currently advertising the following vacancies:

- 1 PhD. Student position (deadline 16 February, 2014)
- 1 senior researcher position (deadline 16 March, 2014)

Further information is available on the [JRC website](http://ec.europa.eu/euraxess).

The research project submitted by the applicant should contain a brief outline of collaborative activities planned at the CFC Beijing.

Deadline for the application: **10 February, 2014**

More information about this position announcement can be found on the [website of the CEFC](http://ec.europa.eu/euraxess).

Inquiries: Alfred Aroquiame - aaroquiame@cefc.com.hk.



7 Events

7.1 EURAXESS Links China

Horizon 2020 Launching events in Macau (20 Feb.) and Hong Kong (21 Feb.)

The European Commission has published on 11 Dec. 2013 the first Work Programmes and 165 Calls for Proposals worth more than 15 billion euros under the new European Union Framework Programme for Research and Innovation "HORIZON 2020".

International cooperation with partners outside of Europe is strongly encouraged. For these partners, Horizon 2020 offers access to Europe's knowledge, data, infrastructures and world-leading scientific networks.

The two launching events will be an opportunity for the research communities in Hong Kong and Macau to learn more about opportunities to connect with the best European research teams and researchers offered by Horizon 2020 but also by other tools set up by the European Commission such as EURAXESS.

The detailed agenda of both events will be published on the [EURAXESS website](#) soon. Stay tuned and we look forward to meeting those of you who are based in these two cities on these occasions.

REMINDER - IMMINENT DEADLINE: CALL FOR PAPERS - 2nd New European Research on Contemporary China International Conference – Beijing

Co-organized by the French Center for Research on Contemporary China (CEFC) and EURAXESS Links China, with the support of the Delegation of the European Union to China, the European Center for China Studies (ECCS), the Heinrich-Böll Foundation and Think in China, this conference aims to bring together doctoral candidates, post-doctoral researchers and recent PhDs based in China, either European nationals or affiliated with European research institutions, in order to produce an overview of the emerging issues in Chinese studies. The focus of the conference is on contemporary China, in a multi-disciplinary social science perspective.

The Conference is designed for doctoral candidates and recent PhDs in humanities and social sciences currently in China or planning to be in China in the summer of 2014, either European nationals or affiliated with a European university or research institute, regardless of nationality. Among the different disciplines that will be considered are anthropology, law, economics, geography, history, literature, international relations, political sciences and sociology.



The conference will sponsor domestic travel within China and accommodation in Beijing for selected participants; however, no funding is available for international travel.

Registration details and schedule:

(1) A paper title and abstract (up to 20 lines) in English is to be sent by **15 February, 2014** to Ms. Miriam Yang: cefc@cefc.com.hk.

(2) The selected participants will be notified by 15 April 2014

(3) The final papers (up to 8000 words) should be sent by 31 May 2014

(4) Selected papers may be published in the journal China Perspectives/ Perspectives chinoises.

To visit the official website for more information, please click [here](#).

To download the call, please click [here](#).

7.2 Upcoming scientific events in China

Find out about major events *in Europe* on the [European Commission's 'Conferences & Events' website](#).

Field	Date	Location	Title (<i>click for more details</i>)
Medicine	20-23 February, 2014	Macau	19th World Congress on Controversies in Obstetrics, Gynecology & Infertility (COGI)
Engineering, Life science	21-23 February, 2014	Sanya	2014 Asia-Pacific Conference on Life Science and Engineering
Biotechnology	27-28 February, 2014	Shanghai	4th Annual Pharma R&D Asia Congress
Biotechnology	27-28 February, 2014	Shanghai	3rd Annual Clinical Trials & Outsourcing Asia Congress 2014
Biotechnology	25-28 March, 2014	Beijing	2nd Pharmaceutical Regulatory Affairs Summit Asia
Plant Biology	21-25 April, 2014	Suzhou	Genome Assisted Biology of Crops and Model Plant Systems
Genetics	5-9 May, 2014	Suzhou	Epigenetics, Chromatin & Transcription
Medicine	10-13 May, 2014	Shanghai	Seventh International Conference SUMO, Ubiquitin, UBL Proteins: Implications for Human Diseases
Neuroscience	12-16 May, 2014	Suzhou	Neural Circuit Basis of Behavior and its Disorders
Engineering	17-18 May, 2014	Nanjing	The 2nd International Conference on



			Materials Engineering (ICMEN2014)
Medicine	19-23 May, 2014	Suzhou	Liver Metabolism, Diseases and Cancer
Biotechnology	20-23 May, 2014	Shanghai	Biomanufacturing Asia 2014
Biotechnology	20-23 May, 2014	Shanghai	Biosimilars Asia 2014
Engineering	22-24 May, 2014	Beijing	2014 2nd International Symposium on Engineering and Natural Sciences (ISEANS 2014)
Engineering	22-24 May, 2014	Beijing	2014 The 2nd International Congress on Engineering and Information (ICEAI 2014)
Education	22-24 May, 2014	Beijing	2014 the 2nd International Conference on Education and Social Sciences (ICEASS 2014)
Cancer research	26-30 May, 2014	7.2.1.1 Suzhou	Precision Cancer Biology and Medicine
Microbiology	2-6 June, 2014	Suzhou	Systems Medicine Approach to Global Infectious Disease
Structural Biology	9-13 June, 2014	Suzhou	5th CSHA Symposium: Structural Biology - From Atoms to Molecules
Chemical Biology	16-20 June, 2014	Suzhou	Protein Modification & Homeostasis
Bioinformatics	16-20 June, 2014	Shenzhen	BGI Bioinformatics Workshop on Diseases
Neuroscience	23-27 June, 2014	Suzhou	CSHA / NGF 2014 Joint Conference on Nerve Growth Factor and Related Neurotrophic Factors: Emerging Concepts, New Mechanisms, Novel Technologies
Computer science	19-20 July, 2014	Shanghai	4th International Conference on Computer Engineering and Networks (CENet 2014)
Marine biology	4-9 August, 2014	Shanghai	ClimEco4
Engineering	20-21 September, 2014	Beijing	The 2nd International Conference on Mechatronics and Automatic Control Systems
Cell biology & Genetics	15-17 October, 2014	Shanghai	2014 International Experimental Biology and Medicine Conference
Cancer research	9-11 November, 2014	Beijing	Cell Symposium - Hallmarks of Cancer: Asia
Bioinformatics	15-18 September, 2014	Shenzhen	2014 BGI International Bioinformatics Workshop



8 Press Review*

8.1 Policy & Papers

BESIII Observation of Four-quark Matter Listed Top of Highlights of the Year

The observation of Four-quark matter, $Z_c(3900)$, the scientific achievement of the BESIII Collaboration was selected as top of this year's eleven highlights chosen by the *Physics Magazine* from the American Physical Society. "Quarks come in twos and threes—or so nearly every experiment has told us. This summer, the BESIII Collaboration in China and the Belle Collaboration in Japan reported they had sorted through the debris of high-energy electron-positron collisions and seen a mysterious particle that appeared to contain four quarks. Though other explanations for the nature of the particle, dubbed, are possible, the "tetraquark" interpretation may be gaining traction: BESIII has since seen a series of other particles that appear to contain four quarks," said the magazine. (Source: [CAS](#))

More efforts to boost innovation in 2014

More efforts will be made in 2014 to support the innovation and research and development of new technologies, said Wan Gang, minister of the Science and Technology Ministry at the 2014 national conference on science and technology in Beijing. The conference, held by the ministry annually, was to summarize the previous year's achievements and experiences in the development of science and technology, and set goals for next year's work. Wan said in 2014 more attention should be paid to making breakthroughs in strategic high technologies, a series of leading technologies that are the focus of researchers worldwide, such as the 5G network, supercomputer, Beidou Navigation Satellite system and 3D printing. More than 200 representatives from the ministry, provincial science and technology departments, Chinese Academy of Sciences, Chinese Academy of Engineering and Chinese Association of Science and Technology attended the conference. (Source: [China Daily](#))

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Hong Kong scientists targeted in S&T drive

China will encourage more talents from Hong Kong to join the country's science and technological programs and lend their expertise to the innovation drive, Cao Guoying, a deputy director-general of the Department of Basic Research at the [Ministry of Science and Technology](#), told at a press conference. According to him, since 2011, 242 research fellows from Hong Kong have participated in the country's key research programs. Among them, four are serving as chief scientists in projects under the National Basic Research Program, or the 973 Program. Meanwhile, Hong Kong's scientific research institutions have received 138 million yuan (\$22.8 million) in funds from the central government. ([Global Times](#))

8.2 Voices & Opinions

Li: China's tech innovation a priority

China will break constraints in its institutional mechanisms to facilitate technological innovation and have it play a greater role in future development, Premier Li Keqiang said in a meeting with the visiting editor-in-chief of Science magazine, Marcia McNutt. He answered a string of questions from McNutt, covering such topics as space technology, climate change and environmental protection. "China will deepen reform, break constraints in its institutional mechanisms and make the creativity of people the core in the promotion of innovation," Li said, according to a news release issued after the meeting. (Source: [China Daily](#))

Bigger role considered in the Arctic

China can play a bigger role in the increasingly ice-free Arctic, using its investment advantages and the size of its markets and labor force, but it is "far from becoming a power player in the Arctic", said Zhang Xia, the head of the polar strategic research division under the Polar Research Institute of China. Zhang's comments came amid increased jostling by the major Arctic powers for control in the region, which is believed to hold rich mineral and energy resources as well as emerging shipping opportunities. (Source: [China Daily](#))

Canada's astronaut, space executive call for int'l cooperation with China

Canadian astronaut Chris Hadfield is calling for cooperation with China in space and wants it to be part of any international effort to return to the moon, Canadian Broadcasting Corporation (CBC) reported on its website. "I think right now a lot of people see it as kind of crazy to cooperate with the Chinese, but I



think it's the next logical step," CBC quoted Hadfield as saying in a recent interview. Hadfield said a logical progression would be to include as many countries as possible in an international mission beyond Earth -- "hopefully including China and India and the other countries that have launch capability and then progress to the next stepping stone, the next natural waypoint out to space, which is the moon." (Source: [Xinhua](#))

8.3 Thematic Activities

Health

SIBS, AstraZeneca Forge Partnership on Cardiovascular Diseases Research

The Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences (SIBS) and the global, innovation-driven biopharmaceutical company "AstraZeneca" signed an agreement on January 13, 2014 to collaborate in the research of cardiovascular diseases (CVDs). Under the agreement, SIBS scientists will work in collaboration with AstraZeneca's Cardiovascular & Metabolic Disease (CVMD) Innovative Medicines group, bringing together SIBS' 'cutting edge' academic and scientific insights and capabilities and AstraZeneca's proven track record in global research and drug discovery. (Source: [CAS](#))

Scientists Reveal A Mechanism of Efficient and Accurate Translesion Synthesis Past a BPDE-dG lesion

Benzo[a]pyrene (BP) is one of the common environmental pollutants generated during incomplete fuel combustion, in tobacco smoke, and in cooked food. BP can be metabolized in vivo to form the most tumorigenic and mutagenic BPDE, which bind covalently with guanine residues in DNA. The formation of BPDE-dG lesion has been closely associated with lung cancer. By employing various techniques, including biochemistry, molecular biology, synthetic chemistry as well as molecular simulations, scientists from Beijing Institute of Genomics, Chinese Academy of Sciences, in collaboration with Dr. YANG Wei of National Institute of Health, USA, revealed for the first time that the structure of gap determines the polymerase's processivity and fidelity. This study has important implications with regard to further our understanding of the molecular mechanisms associated with major diseases induced from common environmental pollutants, as well as developing preventive measures and treatments for human diseases. (Source: [CAS](#))



Study Finds A Potent Painkiller in Traditional Chinese Medicine

When it comes to treating pain, a new study suggests traditional Chinese medicine has been getting it right for thousands of years. A chemical compound found in the underground tubers of the Corydalis plant can effectively alleviate three different types of pain in mice. The Corydalis plant is a member of the poppy family. It grows mainly in central eastern China, and has been used in Chinese medicine for centuries. The pain-relieving compound is known as dehydrocorybulbine (DHCB). It was isolated by Chinese researchers as part of the herbalome project -- an ambitious endeavor launched in 2008 to catalog all the active ingredients in traditional Chinese medicines. (Source: [CAS](#))

Chinese scholars announce breakthrough in HIV virus study

Chinese researchers said they have made a significant breakthrough in the structural analysis of the viral infectivity factor (Vif) of the HIV virus, which will help in the development of new medications to treat or even cure the disease. The new research reveals the structural analysis of HIV-1 protein Vif, whose role is to subvert antiviral activity. The results lay a foundation for the design of novel anti-HIV drugs, the paper said. The Chinese team launched the research program in March 2012. (Source: [China Daily](#))

Researchers find new way to curb human stem cell rejection

US and Chinese scientists said they have discovered an effective strategy that could prevent the human immune system from rejecting the grafts derived from human embryonic stem cells, a major problem now limiting the development of human stem cell therapies. Using a novel "humanized" laboratory mice, the researchers found that one combination of two immune suppressing molecules worked perfectly to protect cells derived from human embryonic stem cells from immune rejection. (Source: [Global Times](#))

Shanghai company unveils sophisticated CT scanner

A Shanghai company has invented a PET/CT scanner that can detect tumors in early stage and is much more efficient than normal CT machines. When the new scanner is put into mass production, the cost of a PET/CT scan can be cut by two-thirds. Before Shanghai United Imaging Healthcare Company invented this new machine, the CT scan technology was monopolized by two to three foreign companies. Their machines cost about 20 million yuan (US\$3.3 million) each. United Imaging has the largest research team among domestic imaging products manufacturers. Many of its senior executives come from joint ventures. (Source: [Shanghai Daily](#))

* * *



Food, agriculture & fisheries, biotechnology

How the scorpion's venomous sting evolved

Defensins are proteins common to many plants and animals that fight off viral, bacterial and fungal pests. Researchers investigated the relationship between these proteins and the neurotoxins present in scorpion venom. Their results showed how just a single genetic mutation could convert such a protein into a deadly toxin. Shunyi Zhu from the Chinese Academy of Sciences, who undertook the study, explained that the similarity of the two in terms of their genetic structure was relatively low. In order to confirm the functional link, the team of researchers from China and Belgium analysed the scorpion neurotoxin to find its "signature" - the region of the protein responsible for its structure and function. "This is a typical example of divergent evolution," said Prof Zhu describing how the shift from microbe immunity to predator defence is a key element in the evolutionary origins of scorpions and their stings. ([BBC Nature](#))

QIBEBT Joins Cluster Industrial Biotechnology

The Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences (QIBEBT) became a member of the Cluster Industrial Biotechnology (CLIB2021) on Nov. 19, 2013. The Cluster intends to promote industrial biotechnology in science and application of industrial biotechnology in commercial industrial activities. To achieve this purpose, in the field of industrial biotechnology, the Cluster creates a working and communication platform for companies and scientific institutes, and expands cooperation among industry, small and mid-sized enterprises (SMEs). The Cluster also focuses on promotion of excellence in science and education inside and outside universities, and the international dialogue between research institutes. QIBEBT will serve as the only Chinese research body within CLIB2021. CLIB2021, headquartered in Germany, is an international open innovation cluster of large companies, SMEs, academic institutes and universities as well as other stakeholders active in biotechnology and the bioeconomy as a whole. (Source: [CAS](#))

Chinese scientists cultivate high-yield salt-resistant rice

Chinese scientists have cultivated a high-yield salt-resistant rice variety that boasts an output of six tonnes per hectare. In an experimental program, two professors from Hainan University and additional researchers from the Hunan Provincial Academy of Agricultural Sciences planted 18 salt-resistant varieties on 3 mu (0.2 hectares) of saline-alkali land along the sea coast in the city of Yancheng in eastern Jiangsu province this year. After harvesting in October, one variety has proved to have similar output as varieties growing on normal farmland, said Lin Qifeng, one of the professors from Hainan University. If it proves successful in further tests and is approved by agricultural authorities, the high-yield salt-resistant variety could mean enormous economic benefits by helping the world's most populous nation cultivate its vast idle saline-alkali land, he said. (Source: [Xinhua](#))



Nation vows to keep up with transgenics

China will strive to keep up with the world's transgenic technology development while maintaining rigorous standards for genetically modified food and keeping consumers well informed about such food, the country's top agricultural authority announced. "In the field of (transgenic) molecular-scale seed breeding technology, which is in the vanguard of the world's life science, we as a large agricultural country cannot fall behind," said Chen Xiwen, deputy chief of the Central Rural Work Leading Group. "In research we must strive to keep up with the advanced level in the world," the senior rural planner for the central government said. (Source: [China Daily](#))

* * *

Information & communication technologies

China unveils native mobile operating system

A new mobile phone operating system was unveiled by a Chinese tech firm, making it the country's first smart phone system with independent intellectual property rights. The system, named 960 OS, was developed by the Coship Electronics Co., Ltd. It is a brand new operating system following predecessors such as Android, IOS, and Windows phone, the Shenzhen-based company said. 960 OS is a native operating system based on the Linux kernel and took Coship 15 years to develop, said the company's chair, Yuan Ming, noting that the system can provide better protection for information stored in a smart phone. (Source: [China Daily](#))

Lenovo ignores global decline

China's Lenovo Group Ltd, the world's No. 1 personal computer vendor, expanded its sales and market share in the fourth quarter, despite a seventh-straight quarter decline in global PC sales. Among top-5 PC vendors, Lenovo and Dell Inc increased their sales in the quarter, while those of Hewlett-Packard, Acer Group and Asus declined, according to US-based research firm Gartner Inc. In emerging markets, the connectivity device for most consumers is a smartphone, and their computing device is a tablet, analysts said. (Source: [Shanghai Daily](#))

British government drops Huawei devices amid security concerns

British government departments "have scrapped" video conferencing equipment supplied by Chinese IT giant Huawei because of security concerns, it was claimed. The Home Office, Ministry of Justice and Crown Prosecution Service are all said to have stopped using the devices during meetings amid fears that



the devices could contain eavesdropping bugs. The company has repeatedly denied having close links with the Chinese government. Last night a spokesman said that "the inaccurate" media reports were being taken seriously. (Source: [SMCP](#))

China Mobile launches 4G iPhone

China Mobile, the world's biggest mobile network with 760 million subscribers, started selling the iPhone 5s and iPhone 5c with 4G network services on Friday. China Mobile iPhones, the first 4G devices available in China, can support 4G/TD-LTE, 3G/TD-SCDMA and GSM networks. They also support WCDMA and FDD LTE networks abroad meaning easier roaming for customers. China Mobile, which has lagged behind in the 3G competition, received its 4G license from the Industry and Information Technology Ministry on Dec. 4. As the world's largest mobile services provider by network scale and subscriber base, China Mobile has been ambitiously rolling out the world's biggest 4G network. (Source: [Global Times](#))

* * *

Nanosciences, nanotechnologies, materials & new production technologies

Infrared Light could Create Hydrogen from Water

Infrared light could help split water into hydrogen and oxygen, despite the fact that infrared photons have less energy than is needed to drive the reaction. That is the claim of physicists from University of Science and Technology in Hefei, who have calculated that the reaction could proceed with the help of a bilayer catalyst that has a strong internal electric dipole. While making this catalyst in the lab would be very difficult, the researchers are now trying to come up with a more practical alternative. If they are successful, such catalysts would allow a far larger proportion of the solar spectrum to be used to generate hydrogen – perhaps making it a commercially viable source of hydrogen fuel. (Source: [CAS](#))

Flexible and Fire Resistant Paper: New Research

Researchers from the Shanghai Institute of Ceramics, Chinese Academy of Sciences have developed a new paper which is resistant to fire and high temperatures (>450°C). They made this new substance from a calcium phosphate compound, hydroxyapatite and it can potentially be used for both printing and writing. This novel kind of inorganic paper can be useful for important documents – preserving them for prolonged periods of time. HAp is a very common material as it is the main component of bones and teeth. As it is very biocompatible, synthetic HAp is normally used to make bone replacement



material. This is the first time that HAp is employed for paper fabrication.
(Source: [CAS](#))

* * *

Environment (including climate change)

The Birth of Hope

The first pregnancy of a wild Yangtze finless porpoise paired with a mate by humans heralds opportunities to save the critically endangered species. Tiantian's snout ruptures the still waters of the Tian'ezhou oxbow natural reserve. The mates live with an estimated 35 other river porpoises at the reserve in Shishou, Hubei province. About 21 kilometers of river in the reserve are closed to the public to protect the fetus. Their feeder Ding Zeliang says the porpoises enjoy "playing" with people. "I talk with them when they fight," Ding says. "But, sometimes, they get angry and swim away during our discussions."
(Source: [China Daily](#))

China protects major riverheads

China has invested 6.51 billion yuan (1.1 billion US dollars) to protect Sanjiangyuan, the cradle of the Yangtze, Yellow and Lancang rivers in northwestern Qinghai Province, according to the [Ministry of Finance](#). The money was used during a nine-year project, which ended at the end of 2013, intended to improve the Sanjiangyuan environment. Money was spent on wetlands protection, grazeland-to-grassland restoration, forest reservation and water and soil conservation. With an average altitude of 4,000 meters, the region is important for herders and rare wild animals such as the Tibetan antelope. It is also a place where medicinal herbs grow like the Tibetan snow lotus.

However, global warming and human activity since the end of last century have led to a deteriorating natural environment, shrinking wetlands, decreasing water levels in lakes and water flow in the headwaters, and increasing desertification.
(Source: [Global Times](#))

Chinese Scientists Unravel Locust Genome

Chinese scientists have decoded the genome sequence of the migratory locust, providing new ways of combating the destructive pest, the Chinese Academy of Sciences (CAS) announced. The genome sequence is at 6.5 gigabytes, the largest animal genome sequence so far, according to research headed by Le Kang of the Institute of Zoology at the CAS. In the research, scientists found significant expansion of gene families associated with energy consumption and detoxification, consistent with long-distance flight capacity and phytophagy. The scientists assessed changes in gene families related to long-distance migration, feeding and other biological processes unique to the locust and identified genes that might serve as potential pesticide targets. (Source: [CAS](#))



Continuous High Temperature Affects Chlorophyll α Fluorescence of *Alhagi sparsifolia* at Southern Taklamakan Desert

Climate change affects organism habitats through direct temperature warming and increased frequency of extreme weather events. High temperature modifies the structure and damages the photosystem II (PSII). Temperatures higher than the optimal level for plant growth result in the deterioration of the structure and function of photosynthetic proteins, consequently leading to a decrease in photosynthetic efficiency. *Alhagi sparsifolia* is an important species for wind prevention and sand fixation in the forelands of the Taklamakan Desert. Researchers suggest that under normal temperature (below 42°C), the PSII of *A. sparsifolia* would be unaffected. When such temperature is maintained for 40 min, the activity of PSII would be limited, and when retained for 60 min, PSII may be severely damaged. (Source: [CAS](#))

Scientists Found Spatial Distribution of Soil Water and Salt Contents in Minqin Oasis

The Minqin Oasis is situated in arid inland, which is also a sensitive region for global climate and environment change, so the ecological environment in Minqin Oasis is extremely delicate. Therefore, it is of very important significance to analyze the spatial distribution pattern of soil water and salt in Minqin Oasis. Drought climatic conditions, rich salt origins, saline groundwater and unreasonable human activities have had a vital impact on the development of soil salinization. (Source: [CAS](#))

Chinese Scientists Pinpoint Source of Jialing River

Chinese scientists released new data identifying the source and length of the Jialing River, a main tributary of the Yangtze River, China's longest and the world's third-longest river. Based on the new data, the origin of the Jialing River is pinpointed at Baozuo village in the Aba Tibetan and Qiang Autonomous Prefecture in southwest China's Sichuan Province. The river runs 1,345 kilometers long, according to the new findings of the Institute of Remote Sensing Applications under the Chinese Academy of Sciences. Located in western China, the Jialing River runs through Shaanxi, Gansu, and Sichuan provinces and Chongqing municipality and meets the Yangtze River in Yuzhong District in Chongqing. (Source: [CAS](#))

Spray Bacteria on the Desert to Halt Its Spread

An odd ally could stall the encroachment of deserts – bacteria. In northern China, the eastern edge of the Qubqi desert is a shifting wasteland of sand dunes. Most of the land is dusty and barren, but bacteria are giving some of it a new lease of life. Planting hardy grasses helps keep sand in place, but the wind can still whip away particles between the grasses. So Chunxiang Hu of the Chinese Academy of Sciences's Institute of Hydrobiology in Wuhan has developed an alternative approach. She coats planted dunes with a mixture of



photosynthesising cyanobacteria that can thrive in the semi-arid environment.
(Source: [CAS](#))

Qinghai-Tibet Plateau gets hotter

Data from the Waliguan Atmospheric Background Station in Northwest China's Qinghai Province shows that the annual mean value of carbon dioxide intensity in the Qinghai-Tibet Plateau has increased from 360 parts per million (ppm) in 1994 to 395 ppm in 2013, up by 9.5 percent. "A direct influence will be increased temperatures, which will affect the ecological degradation and reduce water resources on the plateau," said Liu Peng, a special observer at the station. The Waliguan station is one of the 24 global atmosphere watch baseline observatories in the world. "The plateau is extremely sensitive to climate change and has a very important status in securing the national or even global ecological balance," said Huang Jianqing, another special observer with the station, adding that temperatures on the plateau would continue to increase.
(Source: [Global Times](#))

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Energy

Chinese, U.S. Scientists Find Way to Lift Solar Cell Efficiency by 30 pct

Researchers at the Chinese Academy of Sciences and North Carolina State University of U.S. have found a way to change the molecular structure of materials used in producing solar cells to make the organic solar cells surpass silicon based ones in terms of efficiency of generating power. Organic cells are newer polymer based solar cells which are less efficient than traditional silicon based cells but which have a broader range of uses than silicon cells and are less expensive to manufacture. The key to the breakthrough is a polymer known as PBT-OP created by the researchers. The research should allow for more diversity in the application of solar power which in turn is good news for the environment and the financial viability of solar power. (Source: [CAS](#))

Political advisors urge safe development of nuclear power

China's national political advisors called for steadily promoting the development of nuclear electric power and clean energies while ensuring security. Developing nuclear power and clean energies and restructuring energy use are big issues for China's sustainable economic development and environment protection, advisors said at a biweekly symposium of the Chinese People's Political Consultative Conference (CPPCC). Advisors said that China should optimize the overall layout of nuclear power projects as well as develop hydropower, wind power and photovoltaic power. Authorities should reinforce



nuclear security monitoring and never allow the occurrence of nuclear leaks, the advisors said. (Source: [China Daily](#))

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Transport (including aeronautics)

China's icebreaker *Xuelong* heads to open water

The stranded Chinese icebreaker, *Xuelong*, or *Snow Dragon*, broke through the Antarctic's heavy ice floes at about 6 pm on January 7th and was headed for open water. After being stranded in heavy ice for five days, the ship had broken free. The vessel, which had been conducting China's 30th Antarctic expedition before going to the aid of the Russian ship Akademik Shokalskiy, will now continue with its scheduled activities. The Russian ship had been stuck in the ice for 10 days. However, *Xuelong* became trapped during the rescue effort, with the ice surrounding the vessel three to four meters thick, far beyond the ship's ice-breaking capability. (Source: [China Daily](#))

New icebreaker planned by 2016: officials

China expects to build its new icebreaker before 2016, government officials said, as the veteran *Xuelong*, or Snow Dragon, remained stuck in Antarctic ice after rescuing 52 passengers from a Russian vessel. "The new ship will surpass China's only icebreaker, the *Xuelong*, in scientific research and ice-breaking ability, greatly improving the country's polar research capability," Qu Tanzhou, director of the Chinese Arctic and Antarctic Administration under the State Oceanic Administration, said. The new icebreaker will be designed mainly for field research, instead of transporting supplies, and it will have a better power system plus larger decks and laboratories, making it a "mobile research station", Qu revealed. (Source: [China Daily](#))

New bullet train with 'Chinese standards' planned

China will boost the development of key technologies in high-speed railways and design a new bullet train with "Chinese standards", according to the State-owned railway operator. Currently, most of the advanced parts used on bullet trains running on Chinese tracks such as traction, brakes and control software are dominated by foreign companies, including Alstom, Siemens and Kawasaki Heavy Industries, according to sources close to China Railway Corp. (Source: [China Daily](#))

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Socioeconomic sciences & the humanities, archaeology & paleontology

IVPP Study Selected as One of Discover's Top 100 Stories of 2013

One research discovery from Institute of Vertebrate Paleontology and Paleoanthropology (IVPP) of the Chinese Academy of Sciences, "The oldest known primate skeleton and early haplorhine evolution", developed by Dr. NI Xijun and his collaborators from USA and France, was honored as the 48th of this year's top 100 science stories by *Discover* magazine. The newly discovered fossil was unearthed from an ancient lake bed in central China's Hubei Province, near the course of the modern Yangtze River. In addition to being the oldest known example of an early primate skeleton, the new fossil is crucial for illuminating a pivotal event in primate and human evolution—the evolutionary divergence between the lineage leading to modern monkeys, apes and humans (collectively known as anthropoids) on the one hand and that leading to living tarsiers on the other. (Source: [CAS](#))

Ancient official's tomb unearthed in Beijing

Chinese archaeologists have completed the excavation of a tomb in suburban Beijing that belonged to a high-ranking official during the late Tang Dynasty (618 - 907). A unique painted jade figure, a gilded epitaph with zodiac animal carvings and other valuable artifacts have been unearthed from the tomb of Liu Ji located in Beijing's Fangshan District, the Beijing Municipal Administration of Cultural Heritage announced Saturday. Liu was a powerful governor during the late Tang Dynasty, administering what is now the city of Beijing and its surrounding areas in north China, researchers said. (Source: [Xinhua](#))

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Space

Jade Rabbit moon rover may be beyond repair, state media hints

Scientists may not be able to repair China's lunar rover, Jade Rabbit, that has broken down on the surface of the moon, a report on state media suggested. The report from Xinhua, written as if it sent by the rover itself, said the problems could prove insoluble. "Masters are working round the clock. In spite of that, I know I might not be able to make it through this lunar night," the "report" from Jade Rabbit said. The authorities reported that the rover had experienced a "mechanical control abnormality" and scientists were trying to fix it. (Source: [SCMP](#))

China's Lunar Probe Observes Stars, Explores Moon



A moon-based optical telescope on the lander has been observing lights from many celestial objects at near ultraviolet wavelengths, and has detected 23 stars, said a statement from the State Administration of Science, Technology and Industry for National Defence. After data analysis and processing, scientists have drafted an atlas of stars around the constellation Draco, the statement said. Probe equipment on the rover. Yutu (Jade Rabbit) is exploring the moon. The probe radar has surveyed the moon's surface and collected two sets of data about the structure of lunar soil beneath the surface within 140 meters and 10 meters respectively, the statement said. ([CAS](#))

Rich Chinese tourists looking to space for their next trips

If everything goes well, the first private astronauts from China may journey to space before the end of the year. The Netherlands-based space tourism firm Space Expedition Corporation, or SXC, has signed an agreement with Dexo Travel, a domestic travel agency, to take rich Chinese to space. Zhang Yong, chief executive officer of Dexo Travel, revealed that more than 100 people have expressed an intention to book space trip tickets since registrations began on the Chinese mainland on Dec 27. (Source: [China Daily](#))

China to take free navigation system global

The world can expect to use China's "reliable" global positioning and navigation services for free by 2020, the director of the country's satellite navigation office said. "The Beidou Navigation Satellite System is committed to providing services to the whole world — currently for the Asia-Pacific — for free," said Ran Chengqi, director of the China Satellite Navigation Office. The office released two documents to specify China's homegrown navigation system's open service performance standard and to facilitate research and development of various terminals for global users. After deploying 16 satellites since 2000, the country will begin launching newer navigation satellites near the end of 2014, Ran said at a news conference. (Source: [China Daily](#))

China sharp-eyed science satellite goes live

China's science community moved closer to its goal of a fully integrated system for making high-resolution observations of the Earth's surface from space on Monday, as the first satellite of that system was officially put into operation. The activation of the Gaofen-1 satellite marks a milestone in a program that will substantially improve the nation's capabilities in disaster relief, surveying and environmental protection, the State Administration of Science, Technology and Industry for National Defense, which oversees the program, said in a statement. (Source: [China Daily](#))

Moon rover, lander wake after lunar night



China's moon rover "Yutu" (Jade Rabbit) and the [Chang'e-3](#) lander have just "woken up" after a period of dormancy that lasted two weeks, or one lunar night, in a move designed to ride out harsh climactic conditions. Yutu was awakened autonomously at 5:09 a.m. Beijing Time on January 11th and has finished necessary setting procedures and entered a normal working mode following orders from the Beijing Aerospace Control Center (BACC), according to a statement issued by the BACC on Sunday. It has started its rove around the moon surface and scientific missions. (Source: [Global Times](#))

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People & Higher Education

CAS Scientist Wins New Materials Prize

Prof. WANG Zhonglin, a top scientist at CAS' Institute of Nanoenergy and Nanosystems in Beijing and a foreign academician at CAS, has been recently awarded the 2014 James C. McGroddy Prize for New Materials by the American Physical Society (APS). Prof. WANG, who also holds a professorship at the Georgia Institute of Technology in the United States, won the prize for his work on ZnO nanostructures in sensing, energy harvesting and piezotronics. The James C. McGroddy Prize for New Materials was established in 1997 and endowed by IBM. Its aim is "to recognize and encourage outstanding achievement in the science and application of new materials." Past recipients of the prize include over 30 world-renowned chemistry and physics scientists—some of them Nobel Prize winners – who have made outstanding contributions to the field of new materials. (Source: CAS)

Foreign Scientists Receive CAS International Cooperation Award

A Pakistani scientist and a US scientist received the Chinese Academy of Sciences (CAS) Award for International Cooperation Friday in Beijing for their contribution to scientific cooperation between CAS and the rest of the world. Pakistani Prof. Atta ur Rahman of the University of Karachi and U.S. Prof. Xiao-Fan Wang of Duke University were announced to have won the 2013 award. The two scientists were nominated, respectively, by the Institute of Chemistry of CAS and the Shanghai Institutes for Biological Sciences of CAS. Launched by the academy in 2007, the award honors foreign scientists for their contributions to Sino-foreign research cooperation. The prize is awarded annually by CAS, China's top academic and research institution for natural sciences. (Source: [CAS](#))

First Chinese Wins Houtermans Award

QIN Liping, a professor of geochemistry at the University of Science and Technology of China (USTC), has won the 2014 Houtermans Medal from the European Association of Geochemistry. She is the first Chinese to receive this



prize. Her research focuses on understanding planetary formation and differentiation in the early solar system, as well as the astronomical environments of solar system formation inferred from nucleosynthetic anomalies preserved in meteorites. The Houtermans award recognizes a single exceptional contribution to geochemistry by a scientist no more than 35 years of age or within six years of having earned a Ph.D. (Source: [CAS](#))

Top Natural Science Prize Honors Superconductor Findings

Following a three-year vacancy, China's top natural science prize in its annual national science award was given for the discovery of iron-based compounds as high-temperature superconductors and research on their traits. With applications in a range of high-tech inventions, superconductivity has become a part of daily life, from boosting cell phone signals to offering medical imaging. At Friday's award ceremony, leading project contributors, including Zhao Zhongxian and Chen Xianhui, received the 200,000-yuan (33,040 U.S. dollars) prize on behalf of their research team with the Institute of Physics under Chinese Academy of Sciences (CAS) and the University of Science and Technology. (Source: [CAS](#))

Top scientists awarded \$826,000

Two scientists, nuclear weapons expert Cheng Kaijia and physical chemist Zhang Cunhao, won China's top science award on Friday for their outstanding contributions to scientific and technological innovation. The pair, both members of the Chinese Academy of Sciences, were presented with certificates by President Xi Jinping at an annual ceremony honoring distinguished scientists and research achievements. They each won an award of 5 million yuan (\$826,000). Source: ([China Daily](#))

Eight foreign scientists win Chinese sci-tech awards

Eight foreign scientists were honored by the Chinese government in its international sci-tech cooperation awards. Fabio Rocca, an Italian professor of radar and remote sensing, and German marine geologist Jan Eduard Harff, along with another six experts from the United States, Russia and Canada, were given the awards at a high-level ceremony held annually to honor distinguished scientists and research achievements. Top Chinese leaders, including Chinese President Xi Jinping and Premier Li Keqiang, attended the ceremony. (Source: [China Daily](#))

VP Gao Wen Named ACM Fellow

On December 10, 2013, the Association for Computing Machinery (ACM) recognized 50 of its members as the 2013 ACM Fellow, among whom, Professor Gao Wen, now serving as NSFC Vice President was recognized for



his contributions to video technology and for leadership to advance computing in China. The ACM Fellows are named once a year based on strict review process. Up to now, only a few ACM Fellows are from mainland China. (Source: [NSFC](#))

Facts about the State science and technology awards

The State science and technology awards comprise five awards that recognize scientists and their contributions in special scientific aspects: a) State Pre-eminent Science and Technology Award — to honor the achievements of top scientists, b) State Natural Sciences Award — to honor major breakthroughs in fundamental research, c) State Technology Invention Award — to honor new technical achievements, d) State Science and Technology Progress Award — to honor technologies that brings considerable economic benefits, e) International Science and Technology Cooperation Award — to honor foreign scientists who promoted science advancement in China ([China Daily](#))

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Research infrastructures

China Establishes Advanced Science Research Centers

China has begun establishing five innovation centers that will unite the country's leading talents for research in advanced science and technology fields, according to CAS. The five centers focus on the fields of quantum information and technology, Tibet plateau and Earth system science, particle physics, brain science and thorium molten salt reactors, CAS president Bai Chunli said at a meeting. With CAS-endowed autonomy in research and management as well as independent evaluations from global experts, the five centers will unite China's top scientists and represent the country's most advanced progress in these fields, according to Bai. Bai said they hope to build the five centers into world-class research centers with their own characteristics and significant international impact. (Source: [CAS](#))

China's Top Particle Physics Center Founded at IHEP

The CAS Innovation Center for Particle Physics Frontiers was founded in Beijing on January 22. Prof. ZHAN Wenlong, vice president of CAS, attended the plaque-unveiling ceremony for the center. China has a firm place in worldwide particle physics research. While employing current scientific facilities in China, researchers at the center will also collaborate with international counterparts and participate in frontier research at the Large Hadron Collider (LHC) and other facilities. Talent from home and abroad will be brought in to build the center into a top-notch research base with international influence at



the cutting edge of neutrino physics, new hadron physics and high energy physics. At the ceremony, ZHAN also introduced CAS's plan to establish a total of five top innovation centers in China. (Source: [CAS](#))

China's top quantum tech center founded in Hefei

CAS Center for Excellence Quantum Information and Quantum Physics was founded in Hefei, Anhui province. The center, based in the University of Science and Technology of China and under the leadership of the Chinese Academy of Sciences, will be built into a topnotch academic institution with an international influence in quantum information and quantum physics, Bai Chunli, president of CAS, said at the founding ceremony. (Source: [China Daily](#))

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International S&T relations

Australian Government Thanks CAS for Bushfire Help

The Australian government has expressed gratitude to the Chinese Academy of Sciences (CAS) for its help in tracking dangerous bushfires that threatened Sydney in October 2013. In a letter to CAS President BAI Chunli, Australian Ambassador to China Frances Adamson expressed appreciation for the contribution of CAS's Institute of Remote Sensing and Digital Earth (RADI), under the leadership of Director GUO Huadong, in controlling the bushfires in the State of New South Wales. RADI used data from China's *Environment-1* and *Tiangong-1* satellites as well as foreign data to generate a report showing the location, scope and movement of the bushfires edging towards Sydney's western suburbs. (Source: [CAS](#))

Minister Wan Meets with Minister of State for Universities and Science of UK

On December 2, 2013, Minister Wan Gang met with Mr. David Willetts, Minister of State for Universities and Science of UK. The two sides exchanged views on China-UK research and innovation cooperation, the research and Innovation fund and cooperation as well as science financing. After the meeting, the two sides signed the Memorandum of Understanding on Science and Technology Financing Cooperation between the Department for Business Innovation & Skills of the United Kingdom of Great Britain and Northern Ireland and the Ministry of Science and Technology of the People's Republic of China, which set up the policy framework for future cooperation. (Source: [MOST](#))

NSFC President Meets with U.S. Ambassador



NSFC President Yang Wei met with Mr. Gary Locke, U.S. Ambassador to China on November 25, 2013. President Yang and the Ambassador exchanged views on how to further promote the China-U.S. scientific collaboration, and discussed of a wide range of topics related to the China-U.S. scientific relations. Dr. Eugene Bae, Deputy Director of Environment, Science and Technology and Health Section of the U.S. Embassy, Dr. Emily Ashworth, Director of NSF China Office, Prof. Feng Feng, Director-General, Bureau of International Cooperation, Prof. Zheng Yonghe, Deputy Director-General, Bureau of Science Policy and Prof. Zou Liyao, Deputy Director-General, Bureau of International Cooperation also attended the meeting. (Source: [NSFC](#))

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