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EURAXESS LINKS CHINA

Dear Colleagues,

Welcome to the August edition of the **EURAXESS Links China Newsletter**.

This newsletter looks at the latest developments and funding opportunities in and between Europe and China.

Firstly, this month's EU Insight takes a closer look at the "Sixth FP7 Monitoring Report" which was published on 7 August.

We then have an interesting interview with Professor Seamus Grimes from the Whitaker Institute for Innovation and Societal Change at the National University of Ireland Galway, sharing thoughts about the development of China's innovation capacities. This '**Feature: Meet the Researcher**' section will come again in future editions of the newsletter, introducing researchers active between Europe and China and sharing their expertise on and experience of EU-China R&I matters.

That aside, this edition of the newsletter has the usual round up of news, developments and calls, including the call for papers of the First Shanghai Social Studies Colloquium (SSSC) and the Science, Technology & Innovation Performance of China Project call to answer their survey (*see pages 14 and 15*).

Among the upcoming events, we would like to bring your attention on the HK-EU Cooperation in Protecting and Developing Intellectual Property and Brands: Current Situation and Future Trends, organized by the EU Academic Programme on September 2 in Hong Kong, on the next Understanding Science talk about harnessing the power of the sun to fuel and feed the world,



September 23 in Beijing, as well as to remind you about events already announced in last month's edition:

- the European Research Council (ERC) China tour from 2 to 8 September,
- the 1st Euro-Asian Experts Conference on Immune Biomarkers for Personalized Medicine in Oncology, 6-7 September 2013, Shanghai, organized by the EU-China joint lab IMMUNOCAN
- and, last but not least, the EURAXESS Science Slam China finals on 26 September evening at the Bridge Café in Beijing. (*open event – for those wishing to take part as contestants please visit scienceslamchina.euraxess.org , deadline to join the competition is 10 September*)

You will find a couple of job offers in the **Jobs** section, some in China, others in Europe but still China-related contentwise. Many more career opportunities can be found on the EURAXESS Jobs portal and we encourage locally based employers, companies, universities etc., to use this increasingly popular portal to publish their announcements.

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.

Editor: Jacques de Soyres,
Country Representative of
EURAXESS Links China

Finally, as many of you might have noticed already, the EURAXESS Links global network is producing a quarterly newsletter offering an overview of the ongoing activities and developments in the different countries covered by the network (ASEAN, Brazil, China, India, Japan and North America). This newsletter (2 editions so far) can now be downloaded from the [EURAXESS Links homepage](http://euraxess.org).

I wish you a pleasant summer's ending,

Jacques de Soyres

[EURAXESS Links China](http://euraxess.org) Country Representative



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1 Feature: Meet the Researcher

Prof. Seamus Grimes - Whitaker Institute for Innovation and Societal Change, National University of Ireland Galway

Innovation in China



Seamus Grimes is emeritus professor of geography at the Whitaker Institute for Innovation and Societal Change, National University of Ireland Galway. He has published extensively on a wide range of topics both in economic and population geography, and has served on Ireland's Services Strategy Senior Advisory Group. The main focus of his research has been on foreign investment in Ireland and China, and more recently he has been looking at the contribution of multinational R&D activity to China's emerging innovation landscape.

He can be contacted at seamus.grimes@nuigalway.ie



NUI Galway
OÉ Gaillimh



Whitaker
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Prof. Grimes, you recently had an [article about innovation in China published in the China Daily](#), and in 2011 you had already shared your views on [China's capacity to become an innovation hub in the EURAXESS Links China newsletter](#). How came this interest of yours in the topic of innovation in China?

My interest in this topic derives from many years researching multinational companies in Ireland, and trying to understand their strategies within an increasingly global economy. From 2009 onwards, I had the opportunity to make a number of visits to East China Normal University in Shanghai, where I developed a research collaboration with another economic geographer, Professor Debin Du, who has published widely on multinational R&D activity in China. Professor Du was responsible for introducing me to many multinational R&D centres in Shanghai, and over the following years we carried out quite a few interviews in these centres. This was a particularly fascinating time to study innovation in China, since the government had only recently introduced its focus on indigenous innovation and this new policy presented interesting challenges for foreign multinational companies in China. In January of this year, Professor DU and I published a paper in *European Planning Studies* looking at the contributions of both foreign and indigenous innovation in China.

There has been a lot of talk over the past years about this notion of 'indigenous innovation' and the policy that the Chinese government has designed around it. How would you describe this policy in its major aspects? How would you assess its efficiency?

In some ways, there is nothing unusual about this policy, in that most major countries want to have some level of control over technological developments, and they want to influence these developments internationally. But having said that most developments in China have their own uniqueness and this is related not only to the unprecedented level of growth in what is becoming a very significant market for global companies, but also the unique political



environment in China, with considerable intervention by the state in the economy and the market. Yet some would argue that China is one of the most capitalistic countries to be found anywhere, but it is very much capitalism with Chinese characteristics. Having succeeded for many years to attract record levels of foreign investment to China, the government is obviously re-evaluating the contribution which this investment has made in terms of technology transfer to local companies. Despite the considerable pressure by the state on foreign companies to share technology with local companies, the results have been disappointing to date, with most studies showing few spillovers taking place. Even though many of the companies I interviewed showed a willingness to have some level of give and take in their relationship with China, the underlying model of the global corporation is not designed to share vital intellectual property with companies that could easily become competitors. Also China, like other major countries views the importance of controlling technology developments in terms of its own security, particularly in areas like telecommunications and the internet sector. In this globalizing era, it becomes more difficult and also unrealistic for states to seek to place boundaries around the development of technology. Hence, while China has invested massively in increasing its social and physical infrastructure in order to become more attractive for innovation and R&D activity, the reality is that the major innovation hubs for technology development continue to be located in more developed regions, and China's key challenge is to become more interconnected with these major hubs. My own view is that the indigenous innovation policy, while being completely understandable in terms of the objectives of the state, has to some extent fallen short of its objectives, and this may be partly because of the internal tensions within the policy. Part of these tensions arise from the need to get the balance right between developing and controlling technology within its own borders and benefiting to the maximum from involvement in global innovation networks. There appear to be some signs that Chinese leaders have recognized these limitations and in a typically pragmatic manner, they will adjust the policy accordingly.

In your article recently published in the columns of the China Daily, you describe innovation taking place in China as being mainly incremental. What key conditions would need to be met for China to trigger the move from incremental innovation to radical innovation? Do you believe that there is the will on the Chinese authorities' side to realize these conditions and do you think they will succeed or are the obstacles still too big?

I would not like to give the impression of underestimating China's ability to innovate, because I think that many foreign investors in China have failed in this market by such complacency. Innovation in the end must result in increasing market share. Otherwise, it may result in interesting products and processes that have no real impact. Because of the scale of the Chinese market, which in the case of foreign companies is the middle tier market that is growing rapidly, sectors such as the internet and mobile telephony are experiencing a dynamic evolution in terms of client base and demands from the market that are



unprecedented. This creates an exciting environment for innovation, but it also creates an environment in which local companies can enrich themselves relatively easily by merely adding incremental features to existing technology. The reality is that it is very difficult to specify any particular technology that has been created in China in recent times. Yet, in terms of capturing market share, even though foreign companies by being better connected internationally to technological hubs have major advantages, this may not be reflected in their market share in China. To some extent, this results from the ability of local companies to be more cost-effective and also their greater familiarity with the local market, but there is little doubt that there is also a policy of protectionism associated with indigenous innovation. It is particularly difficult for foreign companies to capture the public procurement market. So, while this could be seen as a successful policy in the short term, by providing an opportunity for local companies to make the transition to a more competitive environment, in the longer term, however, having such a large and to some extent protected local market is likely to slow the process of innovation and make it more difficult for Chinese companies to become more competitive globally.

In terms of what China needs to do to become more innovative, I think that patience is required, but also creating an intellectual environment of independent and critical thinking, in which questioning and even failure are not frowned upon is likely to facilitate greater innovation. Some would argue that Chinese policy in this area has been hampered by bureaucracy, and that the role of the state should be more focused on facilitating rather than directing China's huge private sector to become more competitive internationally.

In the same article, you also mention the currently risky IP environment as one of the main obstacles for China to become an innovation hub. What are the main factors explaining this current IP situation and how do you see it evolve in the close/foreseeable future?

Most scholars acknowledge that China has already put a legal framework in place to protect IP. The problem for many companies is their lack of conviction about its implementation, and also the lack of political independence of the judiciary. As more Chinese companies such as Huawei, ZTE, Haier, BYD, etc acquire significant IP and become concerned about its protection, the IP environment in China will improve, but it is likely to take some years. Many companies I interviewed are still very wary about carrying out leading edge R&D activity in China. In most cases they are moving slowly. The general model seems to be to carry out R&D for products to be developed in China, and perhaps some similar markets, although many foreign-owned R&D centres in China also play an important role in feeding innovation into their global networks.

In September 2012, at the last EU-China Summit, both sides [formally decided to initiate a High-Level Innovation Cooperation Dialogue](#). Some EU-Member States already have such dialogues with China, and so do the US as well. How and to which extent can innovation be the object of



cooperation and what role do you see for States-driven international “innovation cooperation”?



The Whitaker Institute for Innovation and Societal Change applies a multi-perspective research approach to business and social issues, with an impact-led focus at the core of its endeavours. One of its key values is the promotion of a sustainable and inclusive society, influenced by the broad dissemination of rigorous and relevant research. Furthermore, the Whitaker Institute seeks to continue the tradition at NUI Galway of critically pursuing knowledge discovery that stimulates academic debates and opens public conversation to advance the greater good.



The National University of Ireland, Galway, which was established in 1845, is a constituent college of the National University of Ireland. With a student population of 17,000, it is located in the small scenic city of Galway on Ireland's west coast.

I think that China can (and more than likely does) learn some lessons from the history of the EU's Framework Programme of research and particularly its role in facilitating international networking. In the early stages of that programme there was a tendency to promote national champions, an approach that had little success. Over time, experience has shown the importance of international collaboration, although the sharing of commercial outcomes can be problematic. A general failure in many parts of the world by state policy is to more effectively integrate the R&D activity of foreign investors into the local economy.

In many parts of the world, the state has tended to end up focusing on promoting some form of indigenous innovation and prioritizing its own companies. The fact is that in the contemporary global era with fragmented value chains and different locations and regions playing different roles in these value chains, it is vital to develop policies that are in tune with these realities rather than policies that are overly nationalistic in their design. So, while the EU-China Summit will undoubtedly help promote a more internationalized approach to policy development, it is also important for China to allow the market to play a more significant role in driving innovation.

Prof. Grimes, thank you very much for the interview.



2 EU Insight



The European Commission publishes latest monitoring report for FP7

On 7 August 2013, the latest monitoring report for the current European Union's Seventh Framework Programme (FP7 - 2007-2013) was released by the European Commission. The report presents the FP implementation in 2012, provides an integrated view on the different strands of FP7 activities and also presents a comparative analysis of FP7 implementation during 2007-2012. A detailed statistical analysis of FP7 participation and funding is provided and important topics such as dissemination of results, project evaluation, simplification measures, ethical issues or time-to-grant are addressed.

Further focuses are the work of the European Research Council (ERC), the Research Executive Agency (REA), the Joint Technology Initiatives (JTI) as well as the Risk Sharing Finance Facility (RSFF) and the participation of SMEs in the Framework Programme.

What is FP7?

The Seventh Framework Programme (FP7) is the EU's main instrument for funding research in Europe. Since their launch in 1984, the Framework Programmes have played a lead role in multi-disciplinary research and cooperative activities in Europe and beyond. FP7 continues that task, and is both larger and more comprehensive than earlier Framework Programmes. Running from 2007 to 2013, the programme has a budget of 53.2 billion euros over its seven-year lifespan, the largest funding allocation for such programmes. FP7 is a key tool to respond to Europe's needs in terms of jobs and competitiveness, and to maintain leadership in the global knowledge economy.

The Framework Programmes for Research have two main strategic objectives:

- to strengthen the scientific and technological base of European industry;
- to encourage its international competitiveness, while promoting research that supports EU policies.

What are the report's most important facts and findings?

The most important facts and findings of the report relate to participation and publication numbers, the average success rate and the international dimension of FP7.

During the years 2007 to 2012, 379 concluded calls received more than 113.000 proposals, out of which more than 103.000 (involving more than 485.000 applicant organisations and individuals) were included in the evaluation procedure, and more than 20.000 (involving more than 105.000 participants) were finally retained for negotiations, with a corresponding requested EU



funding of € 32.8 billion. Proposals and applicants had an average success rate of 19% and 22% respectively.

More than half of all recorded calls in 2012 were launched under the Specific Programme “[Cooperation](#)”. Higher and secondary education institutes (HES) remain the main beneficiaries of FP7 in 2012, both in terms of numbers of applicants and requested EU funding, with respectively 39% and 29% of the total in retained proposals.

The significant international dimension of FP7 is illustrated by the fact that over a period of five years it funds projects with participant organisations from as many as 170 countries. Outside the group of EU and Associated Countries the biggest participants are the USA, Russia, China, Brazil and India.

By mid-May 2013, over 16.000 publications were reported by the 3.220 projects for which the final reports have been processed. Almost half of these reported publications were publications in high impact peer reviewed journals. Similarly, these projects reported 505 patent applications.

You can read the full report [here](#).

The Seventh Framework Programme is currently in its final year. The new Framework Programme Horizon 2020 will be launched at the beginning of 2014 (the latest developments regarding Horizon 2020 were addressed in the July “EU Insight” section).

Sources and further information

1. Report: “[Sixth FP7 Monitoring Report - Monitoring Report 2012](#)”, 7 August 2013, European Commission
2. Booklet: “[FP7 in Brief - How to get involved in the EU 7th Framework Programme for Research](#)”, 2007, European Commission
3. Factsheet: “[FP7 - Tomorrow's answers start today](#)”, 2006, European Commission
4. News: “[FP 7: Commission publishes the 6th Monitoring Report 2007 - 2012](#)”, 14 August 2013, Kooperationsstelle EU der Wissenschaftsorganisationen (KoWi) (European Liaison Office of the German Research Organisations)



3 EURAXESS Links Activities



EURAXESS Science Slam China: 2 more weeks to submit a video and participate!

The deadline to enter the selection stage by posting a 5 minutes video on YouKu is **10 September**. We encourage all PhD students and postdocs in China to give it a try, it is easy and fun! See the [Terms & Conditions](#) for details on how to take part.

The [final slam event](#) will take place on 26 September in Beijing at the Bridge Café.

Visit scienceslamchina.euraxess.org and watch our [trailer](#) to learn more.

EURAXESS Links Network Newsletter 2nd Edition available online

Highlights in this edition include the editorial by Director General for Research and Innovation within the European Commission Robert-Jan Smits and articles on the following topics:

- ASEAN ranking in FP7 participation
- ASEAN moves towards full economic integration
- EU-Brazil Scientific Cooperation
- On the Relevance of International Cooperation for Innovation from a Chinese Perspective
- India, the European Union and its Member States: Symmetry, Reciprocity and Mutual Benefit for a Strategic Partnership
- "Japan is Back" and EU-Japan S&T Cooperation
- EU-North America S&T Cooperation and the Role of EURAXESS Links North America

The newsletter (as well as past and future editions) can now be downloaded from <http://ec.europa.eu/euraxess/index.cfm/links/networkNewsletters>.



4 News & Developments

4.1 EU & Multilateral Cooperation

Science, Technology & Innovation Performance of China Project calls for Chinese and foreign expertise



The STI China project aims to assess the evolution of the Science, Technology and Innovation (STI) performance of China and analyse its economic impact on Chinese productivity and competitiveness and on the global markets, taking into account the differences between different Science and Technology (ST) fields, economic sectors and types of actors involved.

Financed by the European Commission, the project is coordinated by SPI - Sociedade Portuguesa de Inovação (Portugal) in collaboration with UNU – MERIT (the Netherlands), and AIT – Austrian Institute of Technology (Austria), and supported by Research Centre for Technological Innovation of Tsinghua University and School of Statistics of Renmin University of China.

The survey is a key element in collecting data to better understand China's policies in terms of development of its domestic STI capabilities and its international strategy as well as opportunities for future EU-China STI collaboration.

The target groups of the survey include key stakeholders related to STI in China and in Europe from research and industry.

The survey is anonymous. The provided information will be used only for this project. In an effort to respect the respondents' time, the survey has been designed to take around 10-15 minutes to complete. **By participating in this survey, respondents will have the opportunity to be invited to the project workshops in Europe.**

Please fill in the survey questionnaire by 15 September 2013.

You can access the survey online at:

Q1 – Questionnaire for Chinese Industry Stakeholders in Chinese

<http://web.spi.pt/sti-china/questionnaire-cn-industry.html>

Q2 – Questionnaire for Chinese Research Stakeholders in Chinese

<http://web.spi.pt/sti-china/questionnaire-cn-research.html>



Q3 – Questionnaire for Foreign Research Stakeholders in English

<http://web.spi.pt/sti-china/questionnaire-en-research.html>

Q4 – Questionnaire for Foreign Industry Stakeholders in English

<http://web.spi.pt/sti-china/questionnaire-en-industry.html>

Invitation/ Call for Papers: First Shanghai Social Studies Colloquium (SSSC)

You are warmly invited to the first session of the Shanghai Social Studies Colloquium (SSSC).

The SSSC is a platform for international and Chinese scholars of the various disciplines of the social sciences who are at all stages of their career and based in the city of Shanghai to come together for

- presenting their research to an interested audience of other scholars and practitioners
- listening to, discussing and giving feedback to other researchers' work
- fruitful exchange of thoughts and feedback
- networking and to socializing, also with a view to develop collaborative research projects

The first session of the SSSC will take place on Wednesday, 18 September 2013 at 5pm at the Shanghai teaching site of ESSCA School of Management, Wu Song Road 297, 4th floor, Hongkou District, 200080 Shanghai (one floor below the 'Institut Francais'; in Chinese: 上海市虹口区吴淞路 297 号 4 楼). For this first session (and all future sessions), you may come as a regular participant to meet other researchers and discuss their work but we are also looking for scholars who wish to present their work in the form of a working paper, a journal article, a book proposal, a book chapter or any other suitable form. The research topics may be related to the broad range of the social sciences, including but not limited to:

- Economics/ Business Studies
- Political Science/ International Relations
- Sociology/ Anthropology
- Law
- History -...

You are welcome to present research related to China but this is by no means a necessity. Your research may be unpublished or already published work.

Registration is limited. Two to three papers will be selected per session. The places for regular participants (i.e. those who will not present their research) will be allocated on a first- come-first-serve basis. For anyone who is interested in participating in the SSSC, with or without presenting a paper, please send an email to Frauke.Austermann@essca.fr until **Monday, 9 September 2013**.



Open access to research publications reaching 'tipping point'

The global shift towards making research findings available free of charge for readers—so-called 'open access'—was confirmed today in a study funded by the European Commission. This new research suggests that open access is reaching the tipping point, with around 50% of scientific papers published in 2011 now available for free. This is about twice the level estimated in previous studies, explained by a refined methodology and a wider definition of open access. The study also estimates that more than 40% of scientific peer reviewed articles published worldwide between 2004 and 2011 are now available online in open access form. The study looks at the EU and some neighbouring countries, as well as Brazil, Canada, Japan and United States of America.

Read more on [Europa.eu](http://europa.eu).

EU Research highlight: Improved waste recycling will benefit environment and boost European industry

Waste from electrical and electronic equipment is one of the fastest growing waste streams in the European Union (EU). The quantity of such waste doubles every 12 to 15 years.

What's more, this waste contains rare and precious metals. Emerging green technologies such as solar cells and energy-efficient light bulbs depend heavily on raw materials like gallium, indium and rare-earth elements. Improved electronic waste recycling could thus not only reduce the environmental impact from new mining, but also boost European industry and provide resource security.

That is the aim of the EU-funded project HydroWEEE Demo ('hydro' for hydrometallurgical, and 'WEEE' for waste from electrical and electronic equipment). Started in October 2012, the project brings together research organisations across four European countries with € 2.6 million in EU funding.

HydroWEEE Demo builds upon the earlier success of HydroWEEE, an EU-funded project that concluded in February 2012. That project laid the groundwork for a design of a mobile plant using liquid solvents to extract metals like yttrium, indium, lithium, cobalt, zinc, copper, gold, silver, nickel, lead and tin in a high purity from electronic waste.

The objective of HydroWEEE Demo is to build two demonstration plants – one stationary and one mobile – to test the performance of the techniques devised. The demo plants will also develop processes to recover additional metals from WEEE, and expand beyond that waste stream to other sectors such as automotive waste.

The project, which runs until September 2016, will assess the technical outcomes of the plants, their health risks, and benefits to society and the environment.



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The project is particularly designed to cater to the needs of small- and medium-sized enterprises (SMEs).

Learn more about this project in source: [EC Research Infocentre](#).



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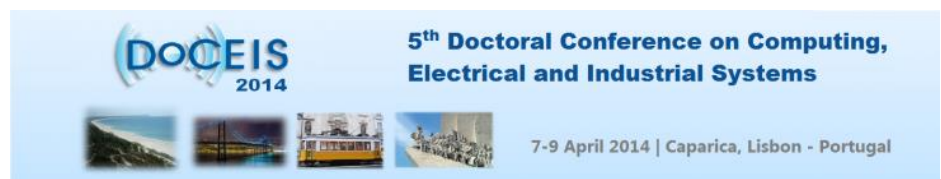
EU Research highlight: 3D printing technology goes from clinic to catwalk

Dutch designer Iris van Herpen has unveiled a new piece at the Paris Fashion Week for Haute Couture created using 3D printing technology from Belgian company Materialise. The design was made using a cutting-edge application of the technology, which is creating a small revolution in fashion and design in the same way that it has already revolutionised medicine. Materialise is a pioneer in Additive Manufacturing (AM) software and solutions, more commonly known as 3D printing, which has grown in size from a university spin-off to a multinational thanks in part to EU research funding.

Speaking about the latest collection Sven Hermans, Account Manager for Materialise said: "For the first time we have worked with Iris van Herpen to produce a hybrid creation incorporating unique, transparent bone-like structures produced with Mammoth Stereolithography. Thanks to 3D printing the dresses are seamless and made to measure. It is exciting working with Iris van Herpen to bring her complex geometrical designs to life; 3D printing does what no other form of clothing manufacture can do when complex shapes need to be created quickly and as one piece."

Learn more about Materialise and their 3D printing technology in source: [EC Research Infocentre](#).

Event in Europe: DoCEIS'14 - 5th Doctoral Conference on Computing, Electrical and Industrial Systems, 7-9 April 2014, Costa de Caparica, Portugal



Technological Innovation for Collective Awareness Systems Innovation and Digital Business Innovation are key pillars in sustainable growth. DoCEIS 2014 focuses on socio-technical systems capable of harnessing collective intelligence for promoting innovation and taking better, informed and sustainability-aware decisions: Collective Awareness Systems.

These systems leverage the emerging "network effect" by combining open social media, distributed knowledge creation and data from real environments ("Internet of Things"), thus linking objects, people and knowledge in order to foster new forms of social and business innovation. DoCEIS 2014 is aimed as an international forum for presentation of research results coming out of PhD



works, and a space for discussion of post-graduation studies, PhD thesis plans, and practical aspects of a PhD work.

Deadline for submission of short abstracts for research papers is September 30, 2013.

Find out more about this conference and how to register on [its website](#).

For a comprehensive list of scientific events in Europe, [click here](#).

Spain dominates Erasmus student exchange flows

Of the 252,827 students exchanged under the Erasmus programme during 2011-12, around 75,000 – 30% – moved between 100 sending or receiving universities. Spain dominated the list, with 31 institutions in the top 100 for both sending and receiving students.

The University of Granada was the top sending and top receiving university, sending 2,101 of its students abroad under Erasmus and receiving 2,052 Erasmus students.

Among the top 100 receiving institutions, only four were in the United Kingdom and only one – the University of Nottingham – was in the top 100 for sending universities.

Altogether 3,328 higher education institutions in 33 countries – the EU27 plus Iceland, Lichtenstein, Norway, Switzerland and Turkey – participated in 2011-12, while 4,452 higher education institutions were eligible, holding an Erasmus University Charter.

By the current academic year, three million students had participated in the Erasmus programme since it was launched in 1987, with a 9% increase in participating students compared with the previous year.

Spain is the main participating country, sending out 39,545 students and receiving 39,300 during 2011-12. The other major countries were Germany, France, Italy and Poland as major sending countries, and France, Germany, the UK and Italy as major receivers.

Read more in source: [University World News](#)

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



4.2 EU Member States*, China & Bilateral Cooperation

China – NSFC releases list of awardees of its International Young Scientists Fellowship 2013 2nd call

The list features [40 young researchers candidates](#) including 16 EU or associated countries' nationals. The projects selected for funding over a 6 months or 12 months period will start on 1 January 2014. The awardees will receive grants of 100 000 RMB for 6 months or 200 000 RMB for 12 months.

Denmark - Funding for two Danish-Chinese ICT research centres extended

In 2010 the NSFC and the Danish National Research Foundation (DNRF) selected three Sino-Danish research projects in the field of ICT for co-funding over a period of three years, from 1 January 2011 until 31 December 2013. According to both sides' agreement, the projects could apply for an additional 3-years funding period. The three projects applied for it and two of them (the Danish-Chinese Center for the Theory of Interactive Computation (CTIC) and the Danish-Chinese basic research centre IDEA4CPS) have received a positive answer and will hence be funded again from 1 January 2014 until 31 December 2016.

Further details on the [NSFC website](#) and on the [CTIC](#) and [IDEA4CPS](#) websites.

France – ANR and NSFC jointly fund Sino-French projects in health and green ICT

The [project in the field of infectious diseases](#) is led by Zhang Qingfeng from Tongji university on the Chinese side and Arthur Scherf from Pasteur Institute on the French side.

The [project in the field of green ICT](#) is led by Chen Ge of the Ocean University of China and Ronan Fablet of the Institut Mines Télécom – Télécom Bretagne on the French side.

Both projects will be funded for four years, from 1 January 2014 until 31 December 2017.

France – Results of XU GuangQi and Cai Yuan Pei programmes 2012-2013 calls

The goal of the Xu GuangQi programme is to develop collaborations between Chinese and French researchers working in laboratories of both countries by

* Including countries associated with the 7th Framework Programme.



supporting them in their initial phase of launching and development. Mobility of young researchers within the collaborations is particularly appreciated. This programme is an important tool for the development of the Sino-French scientific cooperation in the fields of hard sciences as well as social sciences.

As a result of the latest call launched on 21 November 2012, 30 projects out of 83 proposals (66 in hard sciences and 17 in social sciences) have been selected on the following topics:

- Agronomy, animal and crop production, food: 1 project
- Biology, medicine and health: 3 projects
- Chemistry: 7 projects
- Mathematics: 2 projects
- Physics: 1 project
- Earth and universe sciences, Space: 3 projects
- Information and Communication S&T: 1 project
- Engineering sciences: 3 projects
- Social sciences: 9 projects

More details in source: [La France en Chine](#)

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 supports for the travels and stays in the partner country will be provided for 2 full years. Each project should involve 8 people (4 on each side) including one or two PhD works and students on each side. All the disciplinary fields are eligible, including Human and Social Sciences.

Following the launch of the latest call in December last year, 25 projects out of 48 proposals (46 eligible) have been selected for funding in the following fields:

- Engineering sciences: 2 projects
- Mathematics : 1 project
- Earth and universe sciences, Space:: 2 projects
- Information and Communication S&T: 3 projects
- Chemistry: 3 projects
- Physics: 3 projects
- Biology, medicine, health: 6 projects
- Human sciences and humanities: 2 projects
- Social sciences: 3 projects

More details in source: [La France en Chine](#)



UK - Carbon Trust takes its offshore wind expertise to China

The Prosperity funded project Offshore Wind Accelerator was launched in Beijing on July 23.

The Carbon Trust will now be applying the learning from its world leading Offshore Wind Accelerator (OWA) programme to help China meet its national target to grow its offshore wind capacity from under 0.5 gigawatt (GW) today to 5 GW by 2015 and to 30 GW by 2030.

The UK, with over 3 GW installed, currently leads the world in offshore wind power development and the Carbon Trust is spearheading a £45 million innovation programme working in partnership with 9 major developers of offshore wind power to cut the cost of offshore wind by 10% by 2015. The knowledge gained from the programme is now being taken to China and shared with leading developers, turbine makers, research institutes and government.

The Carbon Trust, in conjunction with Chinese Wind Energy Association (CWEA) and China Energy Conservation and Environment Protection Group (CECEP) Wind Power Corporation, held a workshop in Beijing on 23rd July 2013 as part of a 10-month project. Over 50 offshore wind professionals from across the country attended the workshop, including from government, developers, turbine makers, foundation companies and research institutes. The event was opened by Chairman Shi Dinghuan of China Renewable Energy Society and by John Edwards, Counselor of the British Embassy in Beijing.

The project is being funded by the UK Foreign and Commonwealth Office (FCO) in Beijing as part of its Prosperity Fund. The FCO launched the Prosperity Fund in April 2011 to tackle climate change, strengthen energy security and promote an open global economy in key emerging economies.

The project, whose target completion date is March 2014, aims to identify collaborative programmes or initiatives that could reduce the cost of offshore wind in China through adoption of existing technology available overseas or by developing new technology within the country.

Further details in source: [GOV.UK](http://gov.uk)



Carbon Trust takes its offshore wind expertise to China. Source: GOV.UK

UK and Chinese companies discover exciting collaboration opportunities at Guiyang Eco-Forum

British companies shared their experience of eco living at the Eco Forum in Guiyang. The July trade mission, organised by the British Consulate-General in Chongqing to the Global Eco-Forum in Guiyang, revealed exciting new avenues for UK/China co-operation.

A delegation of eight leading UK companies attended the Forum, which is seen as an important national platform for the promotion of sustainable development. Each of the companies brought with them special expertise in architecture, urban planning, property-management, research and consultancy, or water management.



UK trade mission meet with Guanshanhu District government
Source: GOV.UK



It is hoped the visit will pave the way for new UK/China co-operation in Guizhou, for example, BRE Group, a UK education and research charity which provides consultancy services on what makes successful buildings and communities, began new discussions about a Research and Innovation Centre in Guiyang aimed at bring the UK's advanced knowledge and experience together with local companies' and researchers' understanding of the local environment.

Further details in source: [GOV.UK](http://gov.uk)

UK - Chinese delegators to the UK discuss with British companies about cooperation and expand their vision in Life Sciences development

The China Chamber of Commerce for Import & Export of Medicines & Health Products (CCCMHPIE), under Chinese Ministry of Commerce (MOFCOM), brought a delegation from Chinese Life Sciences to the UK, as part of their co-operation with UKTI under the UK-China Joint Economic Trade Commission (JETC) Healthcare Working Group. Delegators including CCCMHPIE, Institute of Chinese Materia Medica, China Academy of Chinese Medical Sciences China Beijing Tong Ren Tang, North China Pharmaceutical Group Corp (NCPC) International Corp were meeting with British companies from Biopharmaceutical industry and institutes at Victoria St Conference Centre, London to discuss in-depth cooperation and expand their vision in Life Sciences development.

This event gave participants the opportunity to find out more about how UKTI, CCCMHPIE and the China-Britain Business Council (CBBC) can help UK companies doing business in China, and network with the delegation of Chinese Life Sciences companies.

Agreement between UKTI and CCCMHPIE on JETC Healthcare Trade & Investment Working Group had been signed. This is the 3rd time to renew this Memorandum of Understanding (MoU) since this working group was established in 2007. The aim is to achieve a step change in the UK-China relationship in two way trade, investment and R&D in Life Sciences, which may lead to the creation of a new generation of shared intellectual property, commercial ventures and to improve healthcare standards in both countries. Areas of cooperation, working mechanisms, organisational structure, funding as well as validity, language are defined clearly in the agreement.

Source: [GOV.UK](http://gov.uk)



5 Grants & Fellowships

5.1 Call announcements for international researchers

EU - Max Weber Fellowships

The Max Weber Programme is Europe's largest postdoctoral programme in the social sciences and humanities. It is funded by the European Commission (DG Education and Culture) and hosted by the European University Institute in Florence (Italy) where the research community of professors, researchers and fellows provides an excellent environment for the Programme.

The Programme, open to all nationalities, is designed for junior post-docs who have received a doctorate in economics, law, history, social and political sciences, or a related field, within the last 5 years and who want to advance in their research and academic training, in an active multidisciplinary environment before entering the international job market, or in the early stages of their academic careers.

The Max Weber Programme offers 1- and 2-year fellowships. Two year fellowships involve additional academic activities in the EUI departments, such as limited graduate teaching.

The annual deadline for applications for these Max Weber Fellowships is **25 October** but after 25 October 2013 and up to 25 March 2014, applications for self-funded fellowships are considered on a first-come first-served basis for as long as there is capacity in the Max Weber Programme.

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

EU - Jean Monnet Postdoctoral Fellowships

The Robert Schuman Centre for Advanced Studies (RSCAS) at the European University Institute in Florence (Italy) offers one or two year fellowships to post-docs in an early stage of their academic career.

The main criteria of selection are the CV of the applicant, the overall scientific quality of the proposal, and the fit of the proposal with the Centre's research programme.

Priority will be given to proposals that fit well with one or more of the Centre's core research themes:

- European Institutions, Governance and Democracy
- Migration
- Economic and Monetary Policy
- Competition Policy and Market Regulation
- Energy Policy and Climate Policy



- Global Governance
- International and Transnational Relations of the EU

The annual deadline for applications is **25 October**.

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

EU - Fernand Braudel Senior Fellowships (Political and social sciences, Economics)

Fernand Braudel Senior Fellowships provide a framework for established academics with an international reputation to pursue their research at the European university institute in Florence (Italy).

Fellowships last for up to ten months in one of the EUI's four Departments which in turn invite fellows to participate in departmental activities (seminars, workshops, colloquia, etc.).

Fellows are encouraged to make contact with researchers sharing their academic interests, may be involved in the teaching and thesis supervision tasks of EUI professors, and associated with one of the research projects being carried out at the EUI.

There are two annual deadlines for applications - 30 March and/or **30 September**

- the Department of Law and the Department of History and Civilization consider applications only for the 30 March deadline
- the Department of Political and Social Sciences considers applications **only for the 30 September deadline**. The next deadline 30 September 2013 is for applications in the calendar year 2015.
- the Department of Economics considers applications for the 30 March and **the 30 September deadline**

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

Netherlands - Innovational Research Incentives Scheme Vidi

The Innovational Research Incentives Scheme Vidi is a grant for experienced researchers. Vidi is part of the Incentives Scheme. It allows researchers who have already spent several years doing postdoctoral research to develop their own innovative lines of research, and to appoint one or more researchers.

Vidi is targeted at the excellent researcher who following his/her PhD has carried out several years of research and in doing this has demonstrated the ability to generate and effect innovative ideas independently. Researchers who have obtained their PhD within the last 8 years can apply for a Vidi grant. Researchers from abroad may apply.

The maximum grant is 800.000 euros. A funding round is held every year. The deadline for submitting applications in the 2013 round is **3 October 2013**.



Further details about this scheme can be found on the [NWO website](#).

Norway – Norwegian Programme for Research Cooperation with China (CHINOR) funds allocation within KLIMAFORSK Climate programme

A new call for proposals within climate change research is announced through the new large-scale Climate Programme (KLIMAFORSK). International collaboration is highly encouraged.

The primary objective of the large-scale Climate Programme (KLIMAFORSK) is to generate essential future-oriented knowledge about the climate to the benefit of society, of national and international significance.

In this first major call, funding is available for Researcher Projects (NOK 120 million) and Knowledge-building Projects for Industry (NOK 15 million), with the aim of enhancing knowledge about how society can and should adapt to the challenges of climate change – including both mitigation of, and adaptation to, climate change.

Grant proposals must address research questions in one or more of the following four sub-areas of social transformation in response to climate change:

- Climate change transformation as a social phenomenon;
- Strategies for reducing anthropogenic impacts on the climate system;
- Climate change adaptation strategies;
- Interaction between strategies for reducing the impacts of climate change and strategies for adapting to the impacts of climate change.

The call is targeted at projects that are **mainly within the social sciences and the humanities**. Projects addressing interdisciplinary research questions and incorporating components from other disciplines such as the natural sciences and technology are encouraged, when relevant.

Within the general thematic framework of this call for proposals, **the Norwegian Programme for Research Cooperation with China (CHINOR) will allocate up to NOK 15 million to Researcher Projects involving the participation of Chinese partners.**

Deadline for application is **16 October, 2013**. Read more on the [CHINOR webpage](#).

Norway – UTFORSK programme

UTFORSK is a new Norwegian instrument for strengthening the linkage between higher education and research in international collaboration, and to increase cooperation between Norway and Brazil, China, India, Japan, Russia and South Africa.



Support may be given to joint activities, such as:

- Student and staff mobility (including student internships or work placements)
- Intensive courses
- Joint seminars, workshops and similar activities involving both researchers and students from participating institutions
- Development of joint courses, study programmes or degrees
- Joint teaching and supervision
- Students' participation in research activities/projects

A total of NOK 8 million is available through this call. Each project may apply for up to NOK 1,5 million for a three year period (2014 – 2016).

Accredited Norwegian higher education institutions, public and private, may apply to the UTFORSK Partnership Programme, together with one or more partner institution in the eligible countries. The partner institution should be a recognised/accredited higher education institution, and should provide education relevant to the project, and at a level comparable to what is offered at the partner institution in Norway.

Application deadline is **9 October, 2013**. Read more on the [Norwegian Centre for International Cooperation in Education \(SIU\) website](#).

Poland – Homing Plus programme

The goal of the Homing Plus programme is to encourage young scholars with PhD working abroad (Poles and foreigners) to continue their scientific career in Poland. It is aimed at scholars holding a PhD up to 4 years after the doctorate and who have been abroad for an uninterrupted period of at least 9 months (conducting scientific research, holding a postdoctoral fellowship or preparing the doctoral dissertation).

The programme offers a research subsidy in an amount of up to PLN 80,000 annually (intended solely for realization of the research project, including *inter alia* salary of personnel, purchases of apparatus, materials necessary to conduct research, scientific publications, computer equipment and software, financing of cooperation with foreign partners) and a research stipend in the amount of PLN 5,000 per month.

The deadline for the last edition of the Homing Plus programme is **15 October 2013**. More details available on the [Foundation for Polish Science \(FNP\) website](#).

Sweden – Framework grant in antimicrobial resistance, Sweden-NSFC (China) joint research program

A joint call for proposals has now been published under this programme by the Swedish Research Council for Health, Working Life and Welfare (Forte), the Swedish Research Council for Environment, Agricultural Sciences and Spatial



Planning (Formas), the Swedish Research Council and the National Science Foundation of China (NSFC).

This call for applications has been preceded by a request for an expression of interest from the administering organisations. The shortlist of organisations which can now apply to this call on the Swedish side is available on the [Swedish Research Council website](#). Deadline of the call is **26 September, 2013**.

The aim of the grant is to support research collaboration between Sweden and China in the following area: Research on antibiotics and their use on humans and animals, as well as the environmental effect of antibiotics. The research should aim at improved basic knowledge, improved diagnostics and treatment or perfecting use, care and management, minimizing emergence of antimicrobial resistance and environmental effects.

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

UK - Royal Society International Exchanges Scheme China and Taiwan Cost Shares

This scheme is for scientists in the UK who want to undertake a collaboration with scientists overseas through either a one-off visit or a bilateral travel.

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. In the case of cost share applications (see below), a relationship between both parties should already be established prior to making an application.

The funding available under cost share programmes amounts up to £12,000 for projects of a duration fixed at 2 years (including a maximum of £2000 for research expenses).

In the case of collaborations with partners in Taiwan and mainland China, proposals can be considered as a cost share application. This entails the UK applicant submitting a proposal to the Royal Society for up to £12,000 and the overseas applicant simultaneously submitting a proposal for an additional amount up to/equivalent to £12,000 to a partner organisation, with whom the Royal Society has a funding agreement. In the case of Taiwan this would be the NSC and in the case of mainland China the NSFC.



NSC Taiwan cost share is now open for application and close **23 October 2013**.

2013 NSFC China cost share is now open and closes **30 October 2013**.

Further details available on the [Royal Society website](#).

5.2 Calls still open

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

Austria – Marietta Blau Grant

The next deadline for application is **1st September, 2013**.

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

Switzerland - Swiss National Science Foundation Doc.Mobility fellowships

The next deadline for application is **1st of September, 2013**.

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

Switzerland - Swiss National Science Foundation Early Postdoc.Mobility fellowships

The next deadline for application is **1st of September, 2013**.

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

EU – CERN Fellowship and GET Programmes

Deadline to submit applications is **2 September, 2013**.

Visit the [CERN website](#) to learn more about this call, the eligibility requirements and funding offered.

Netherlands – Rubicon

Next deadline for application is **4 September, 2013**.

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



Denmark – International Network Programme: Fifth call for proposals for bilateral network activities in R&D with China (incl. Hong Kong)

Deadline for application is **6 September, 2013**.

Further details available on the [Danish Ministry of Science, Innovation and Higher Education website](#).

Luxembourg – AFR Postdoc Grants

The deadline to apply to the AFR Postdoc grant is **10 September, 2013**.

Learn more on the [FNR website](#).

Sweden – STINT Initiation Grants

Next applications' assessment round starts on **10 September, 2013**. One more will take place in 2013 starting on November 26.

Read more about this programme on the [Swedish Foundation for International Cooperation in Research and Higher Education \(STINT\) website](#).

Sweden – Grants for Distinguished Young Researchers and for Distinguished Professors

Deadline for application to both grants is **10 September, 2013**.

Further details on the [Swedish Research Council website](#) (click [here](#) for Distinguished Professors)

Austria – Institute of Science and Technology, ISTFELLOW

Next application deadline: **15 September 2013**.

Further information available at [ISTFELLOW](#).

EU – Programme for Collaborative Diabetes Research between China and Europe

EFSD and CDS and Lilly invite applications by issuing a "[Request for Applications](#)" (RFA), which indicates joint funding as well as areas of research emphasis.

Deadline for application is **15 September, 2013**.



Germany – German Chancellor Fellowships for Prospective Leaders

Application can be submitted until **15 September, 2013**. The fellowship begins on 1 October of the following year.

More details available on the [Alexander von Humboldt Foundation website](#).

France – CNRS-CAS & CNRS-CASS Researchers Exchange Programmes 2013

The call was launched on 17 June and will close on **17 September, 2013**.

French candidates should apply online on the [CNRS website](#) (contact: Mme Marie Rouby, marie.rouby@cnrs-dir.fr, Tel : +33 1 44 96 46 81). The Chinese partners should apply at the same time with the CAS International Bureau (see [CAS website](#), contact Mrs. WU Yan, wuyan@cashq.ac.cn or Mrs. Liu ZhaoYan zyliu@aoe.ac.cn) or with the CASS International Bureau (Mrs. Zhang LiHua zhanglh@cass.org.cn and Mrs Shi XueHua shixh@cass.org.cn).

EU – Joint Programming Initiative (JPI) Urban Europe 2nd call for applications: Creating attractive, sustainable and economically viable urban areas

Deadline for submission of pre-proposals is **18 September, 2013**. Access the call document on the [JPI Urban Europe website](#).

Luxembourg – AFR PhD. Grants

The deadline to apply to the AFR Postdoc grant is **24 September, 2013**.

Learn more on the [FNR website](#).

France – “Shanghai Attractivité 2013” programme at Shanghai Institut Pasteur

The closing date for application is **30 September, 2013**. Applications should be submitted on the [Campus France website](#).

Contact person within the French embassy is Mr. Frédéric Bretar, frederic.bretar@diplomatie.gouv.fr.

France - EFEO Field Scholarships

The next application deadline in 2013 is **30 September, 2013**, for scholarships tenable between 1 July and 31 December 2014.

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



Germany - DAAD Yearly Grants for Research Stays abroad, China call

For stays in mainland China (Hong Kong and Macau not included) the next deadline for application is **30 September 2013** with the funding period starting from September 2014.

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

Italy – CNR-CAS Joint Call 2014-2016 Exchange Projects

Deadline for application is **30 September, 2013**.

Further details available on the [CNR website](#) and on the [CAS website](#).

Italy – CNR-CASS Joint Call 2014-2016 Exchange Projects

Deadline for application is **30 September, 2013**.

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

Sweden - Research Council Formas, Call for supporting sustainable development in low-income countries - mobility grants for young researchers

Application deadline is **30 September, 2013**.

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

EU – ESF Research Conferences 2013 call

The application period closing date is **1 October, 2013**. Visit the [ESF website](#) to learn more.

Switzerland – SNSF International Exploratory Workshops

Although the call for this funding instrument is always open, there are three cut-off dates per year when the evaluation process begins. The next cut-off date is **9 October, 2013**.

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

Denmark - The Danish Council for Independent Research (DFF) Individual Postdoctoral Grants

The next deadlines for application are the following (depending on which research council one applies to): FKK: **1 November 2013**, FNU: **28 October**



2013, FSE: 29 October 2013, FSS: 7 November 2013, FTP: 4 November 2013.

Further details available on the [Danish Ministry of Science, Innovation and Higher Education website](#).

5.3 Open calls under FP7 and Euratom

The following call for proposals is currently open under the [Ideas](#) programme (managed by the ERC)

Call	Launched	Deadline
Calls for proposals for ERC Proof of Concept Grant	10 January, 2013	3 October, 2013

The following call for proposals is currently open under the [People](#) programme :

Call for proposals	Launched	Deadline
Marie Curie Career Integration Grants (CIG)	18 October 2012	18 September 2013

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

- [Food, Agriculture and Fisheries, and Biotechnology](#) / 1 open call
- [Information and Communication Technologies](#) / 1 open call
- [Joint Technology Initiatives \(Annex IV-SP1\)](#) / 2 open calls

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

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



6 Jobs

China - Chief Scientific Manager at LIBOVITO, Beijing

LIBOVITO is a recently established environmental modelling company. One of the aims of the company is to implement European-made air quality modelling tools in regions and cities in China. These tools are supplied by the European owner, VITO a large scientific research company based in Flanders, Belgium. Due to its recent growth, LIBOVITO are looking for a Chief Scientific Manager to oversee the Chinese technical team based in Beijing. Therefore position is predominantly based in Beijing, China.

The Chief Scientific Manager will be responsible for daily technical management of a team of air quality modellers, environmentalists and ICT experts.

The successful candidate will be a multi-facade scientist with a strong track record in atmospheric modelling, monitoring or policy with a keen interest in helping this new business reach its commercial potential. During the first year, the successful candidate will be based in both Belgium and Beijing.

The candidate must be able to fluently converse in both Chinese and English.

Application deadline is **1st of September, 2013**.

[Access full announcement on EURAXESS Jobs.](#)

China - Faculty Positions in Pharmaceutical and Molecular Science, Tianjin University

Tianjin University (TU) – School of Pharmaceutical Science and Technology (SPST) initiates an international faculty recruitment campaign with the goal of building a world-class school comprising global talent, a cosmopolitan environment and state-of-the-art infrastructure.

The university seeks junior and senior scholars with a demonstrated high level of excellence in research and dedication to teaching in English, to help build two major platforms: the **Institute of Drug Innovation and Development**; and, the **Institute for Molecular Design and Synthesis**.

Outstanding talent in all areas of pharmacy and molecular science are sought (e.g, pharmaceuticals, pharmacology and toxicology, structural biochemistry, chemical biology, biochemical engineering, pharmaceutical process and formulation, pharma economics, regulatory science, public health policy, computational chemistry and biology, and material science).

SPST is a signal program of the new Tianjin campus development plan, outfitted for the highest international standard of modern research.



The program will be run in English for research, teaching and internal administrative activities. Student recruitment at the graduate (MS and PhD) level will be internationally competitive; the undergraduate program will provide top class instruction in English and a broad-based liberal education experience accessible to an international and Chinese student body.

Submission deadline is **22 September, 2013**.

Access full announcement on Naturejobs.com.

China - Announcement for Employing Outstanding Young Scientists at OCRI-CAAS, Wuhan

The Oil Crops Research Institute of Chinese Academy of Agricultural Sciences (OCRI-CAAS) was established in 1960 and is sponsored by the Ministry of Agriculture. As a national research institution, OCRI-CAAS has rapeseed, soybean, peanut, sesame and other special oilseed plants as its mandate crops with a mission to conduct basic and applied research which can enhance the oilseed industry. The current research themes at OCRI-CAAS include crop germplasm, genetics and breeding, genomics, genetic engineering, plant physiology, plant nutrition and fertilization, plant protection, safety assessment of transgenic plants, biochemistry, product processing, and quality safety management for oil crops.

In order to accelerate the scientific innovation and promotion of OCRI-CAAS into a modern institution with international level, we are announcing research job positions for outstanding young scientists for several research fields covered by the institute.

Applicants should possess a PhD degree and be less than 40 years old, have undertaken and completed related research project(s) as principal investigator or core collaborator and be able to work in OCRI-CAAS in Wuhan during the whole contract period.

In addition to personal benefits, each qualified young scientist will be supported with research fund of three million RMB and facility cost of one million RMB. Necessary office, laboratory and research assistants will be provided.

Application deadline is **9 October, 2013**.

Access full announcement on Naturejobs.com.

Netherlands - Postdoc Strengthening Ecosystem Services in China, Wageningen University & Research Center

The Wageningen University & Research Center is looking for an ambitious post-doctoral fellow with a strong background in quantitative field ecology and/or entomology. The successful candidate will conduct field experiments to quantify the ecosystem services (ES) of biocontrol and pollination in Chinese rice-oil seed rape crop systems.



Applicants should ideally have a PhD Degree in Entomology or Quantitative Ecology, a proven track record in conducting field experiments, experience with or affinity for modeling and be fluent in both Chinese and English.

[Access full announcement on EURAXESS Jobs.](#)

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

The European Commission's Joint Research Centre (JRC) is currently (as of 29 July 2013) advertising the following vacancies:

- 6 doctoral positions - 4 senior researcher positions

Further information on the [JRC website](#).

Netherlands - Lectureship in the study of pre-modern China, Leiden University Institute for Area Studies (LIAS)

The Faculty of Humanities at Leiden University invites applications for a fulltime University Lectureship in the study of premodern China. Research specialization is open, but we are especially interested in scholars of literature. Teaching will include Classical Chinese, history, and topics of choice depending on specialization, in Chinese Studies and (East) Asian Studies.

This is a replacement position, and appointment will be fixed-term from January 2014 through June 2017.

Applicants should ideally have a PhD degree in a relevant field. However, candidates near completion of the degree will be considered.

Other skills sought for include an excellent command of Classical Chinese and modern Chinese (proficiency in other (East-)Asian languages is an advantage), international experience in education and/or employment, and excellent command of English as most MA programs at Leiden University are taught in English.

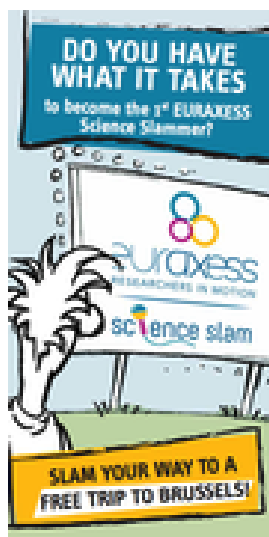
[Access full announcement on EURAXESS Jobs.](#)

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



7 Events

7.1 EURAXESS Links China



Mark your agendas > EURAXESS Science Slam China Finals – 26 September, 2013, Beijing

The event will take place at the Bridge Café in WuDaoKou on 26 September evening. Come join this event and **decide who will be awarded the title of China Science Slammer 2013!**

See the [Finals flyer](#) for details about the finals programme and venue.

The audience will play a key-role as it will evaluate the presenters and choose the winner. Drinks and food will be offered, don't hesitate to bring your friends!

All details about the EURAXESS Science Slam China 2013 and how to participate in the competition can be found here:
<http://scienceslamchina.euraxess.org>

*Deadline to [enter the pre-selection phase](#) of the contest and submit online video: **10 September 2013***

EURAXESS – Voice of the Researchers' Conference. 21 – 22 November 2013, Brussels (Belgium)



The [EURAXESS - Voice of the Researchers Conference "Raising Researchers' Voices - opinions on jobs, careers and rights"](#) is a 2-day meeting for researchers to debate and talk about issues affecting modern research, research careers, mobility, funding and policy in the European Research Area (ERA). It will draw researchers from the fields of science, the arts and humanities to Brussels (Belgium). It will aim to be a two day event of interactive discussions and networking between researchers coming from different countries and regions of their world. Registration deadline is **31 October 2013**.

Researchers based in China can get a free trip to Brussels participating in the EURAXESS Science Slam China. Applications to take part in the slam are open **until 10 September**. Read more: scienceslamchina.euraxess.org.

7.2 EURAXESS Links China Recommends

Register now - HK-EU Cooperation in Protecting and Developing Intellectual Property and Brands: Current Situation and Future Trends, September 2, Hong Kong

The conference "Hong Kong - European Union Cooperation in Protecting and Developing Intellectual Property and Brands: Current Situation and Future Trends" will take place on September 2, 2013, at AAB 201, Academic and Administration Building, Hong Kong Baptist University, Kowloon Tong. The event is jointly organized by The European Union Academic Programme Hong Kong and the European Chamber of Commerce in Hong Kong, supported by the European Union.

The conference focuses on the current state and future of intellectual property rights protection and enforcement in Europe and Hong Kong. It seeks to effectively enhance the collaborative working relationships between IP/brand owners, law enforcement officials, IP Departments, investigators and industry organizations in the two regions. It will feature interactive panel discussions and presentations to provide participants an opportunity to obtain insights from the participating experts on recent intellectual property rights protection and enforcement successes and challenges as well as an outlook on future IP trends in the region.

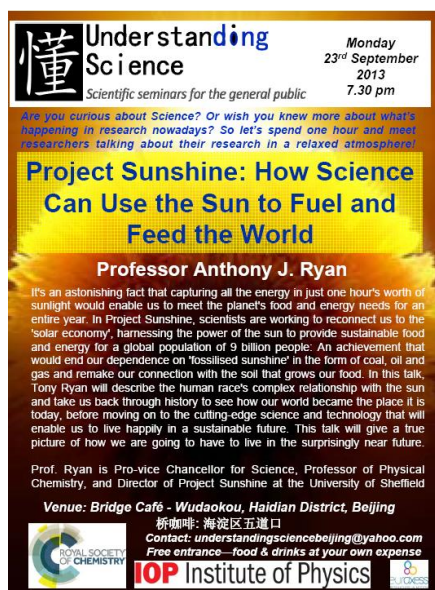
Mr. Anders Jessen, Head of Unit for Public Procurement and Intellectual Property, DG Trade, European Commission; Mr. Peter K F Cheung, Director of Intellectual Property Department, HKSAR; Mr. Albert Ho, Assistant Commissioner, Intelligence and Investigation Branch at Hong Kong Customs will be among the speakers.

Visit the [conference website](http://ec.europa.eu/euraxess) for more information.

Understanding Science - Project Sunshine: How Science Can Use the Sun to Fuel and Feed the World, 23 September, Beijing

The next Understanding Science talk will take place on Monday 23 September at the Bridge Café in Wudaokou. Professor Anthony J. Ryan, Pro-vice Chancellor for Science, Professor of Physical Chemistry, and Director of Project Sunshine at the University of Sheffield, will explain how harnessing the power of the sun could provide sustainable food and energy for a global population of 9 billion people: An achievement that would end our dependence on 'fossilised sunshine' in the form of coal, oil and gas and remake our connection with the soil that grows our food.

In this talk, Tony Ryan will describe the human race's complex relationship with the sun and take us back through history to see how our world became the place it is today, before moving on to the cutting-edge science and technology



Understanding Science
Monday 23rd September 2013 7.30 pm
Scientific seminars for the general public

Are you curious about Science? Or wish you knew more about what's happening in research nowadays? So let's spend one hour and meet researchers talking about their research in a relaxed atmosphere!

Project Sunshine: How Science Can Use the Sun to Fuel and Feed the World

Professor Anthony J. Ryan

It's an astonishing fact that capturing all the energy in just one hour's worth of sunlight would enable us to meet the planet's food and energy needs for an entire year. In Project Sunshine, scientists are working to reconnect us to the 'solar economy', harnessing the power of the sun to provide sustainable food and energy for a global population of 9 billion people. An achievement that would end our dependence on 'fossilised sunshine' in the form of coal, oil and gas and remake our connection with the soil that grows our food. In this talk, Tony Ryan will describe the human race's complex relationship with the sun and take us back through history to see how our world became the place it is today, before moving on to the cutting-edge science and technology that will enable us to live happily in a sustainable future. This talk will give a true picture of how we are going to have to live in the surprisingly near future.

Prof. Ryan is Pro-Vice Chancellor for Science, Professor of Physical Chemistry, and Director of Project Sunshine at the University of Sheffield

Venue: Bridge Café - Wudaokou, Haidian District, Beijing
桥咖啡: 海淀区五道口
Contact: understandingsciencebeijing@yahoo.com
Free entrance—food & drinks at your own expense

IOP Institute of Physics



that will enable us to live happily in a sustainable future. This talk will give a true picture of how we are going to have to live in the surprisingly near future.

Contact: understandingsciencebeijing@yahoo.com

Free entrance—food & drinks at your own expense.

OpenChina-ICT Final Conference on Strengthening Cooperation in ICT Research between Europe and China, 5 November, Vilnius (Lithuania)

The OpenChina-ICT project Final Conference is taking place at a crucial time for the development of new instruments for EU-China cooperation including collaboration in science, technology and innovation (through the launch of the new EU Horizon 2020 Framework Programme for Research and Innovation). Within this context, one of the main highlight of the conference will be the formulation of a [EU-China ICT Cooperation Plan](#) presenting the potential for collaboration in ICT research between Europe and China to be released by the OpenChina-ICT project including a set of recommendations to policy makers on how to better foster EU-China collaboration in the future.

The Conference will focus on EU-China ICT cooperation opportunities and will build upon the results of the OpenChina-ICT project. It will include a first session on EU-China collaboration status and perspectives with the participation of other EU-China initiatives, a second session on cooperation priorities in ICT among the two regions in which the main findings of the OpenChina-ICT project will be presented with the involvement of the [EU-China Expert Groups](#). The third session will aim to provide recommendations and suggestions for EU-China successful ICT research cooperation and will be led by a panel discussion of experts.

Registration is free of charge but compulsory due to room capacity constraints, click [here](#) to register.

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Conference held as a side event of [ICT2013](#) organised by European Commission's [DG CONNECT](#) and representing Europe's most visible forum for ICT research and innovation, taking place from November 6-8, 2013 in Vilnius, Lithuania.

7.3 Upcoming scientific events in China

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

Field	Date	Location	Title (click for more details)
Innovation	1-2 September, 2013	Beijing	2013 4th International Conference on Innovation, Management and Service- ICIMS



			2013
Management	1-2 September, 2013	Beijing	2013 2nd International Conference on Management Technology and Science- ICMTS2013
Construction & Project Management	1-2 September, 2013	Beijing	2013 4th International Conference on Construction and Project Management - ICCPM 2013
IP (EU Project)	2 September, 2013	Hong Kong	HK-EU Cooperation in Protecting and Developing Intellectual Property and Brands: Current Situation and Future Trends
Photonics	2-3 September, 2013	Hong Kong	2nd Sino-Danish Photonics Days
Cancer Research	2-6 September, 2013	Suzhou	CSH Asia 2013 Conference on Cell Signaling in Metabolism, Inflammation and Cancer
Immunology	4-6 September, 2013	Shanghai	Partnerships in Clinical Trials Asia 2013
Pharmacology	4-6 September, 2013	Shanghai	World Biopharma Week China Focus 2013
<i>EU-China cooperation</i> Medicine (FP7 project)	6-7 September, 2013	Shanghai	1st Euro-Asian Experts Conference on Immune Biomarkers for Personalized Medicine in Oncology
Chemistry	8-13 September, 2013	Shanghai	The 24th International Society of Heterocyclic Chemistry Congress
Proteomics (FP7 project)	9-10 September, 2013	Chongqing	3rd China-Europe Symposium on Glycoproteomics
Infectious Diseases	9-13 September, 2013	Suzhou	CSH Asia 2013 Conference on Molecular Basis of Aging and Disease
Pharmacology	20-22 September, 2013	Suzhou	2013 Chinese Congress and Exposition on Gerontology and Health Industry
Bioinformatics	20-22 September, 2013	Taichang	InCoB2013 - 12th International Conference on Bioinformatics
Chemistry	22-25 September, 2013	Dalian	2nd International Congress on Catalysis for Biorefineries (CatBior 2013)
Science Communication	23 September, 2013	Beijing	Understanding Science: Project Sunshine: How Science Can Use the Sun to Fuel and Feed the World
Space	23-27 September, 2013	Beijing	64th International Astronautical Congress
Biotechnology	23-27 September, 2013	Beijing	The 13th International Conference on Culture Collections - ICCC-13
Computational Biology	23-27 September, 2013	Suzhou	CSH Asia 2013 Conference on Frontiers in Bioinformatics and Computational Biology
Chemistry	24-27 September, 2013	Chengdu	2013 Int'l Autumn Seminar on Propellants · Explosives and Pyrotechnics



Energy	25-28 September, 2013	Shanghai	5th World Hydrogen Technologies Convention , WHTC2013
Science Communication	26 September, 2013	Beijing	EURAXESS Science Slam China 2013
Genetics	7-11 October, 2013	Suzhou	CSH Asia 2013 Conference on Genetic, Genomic, and Translational Studies of Human Leukemia
Atmospheric science	9-10 October 2013	Ningbo	International Conference on Atmospheric Science and Air Pollution Control and The 7th Fine and Ultrafine Particles Workshop
Neuroscience	10-15 October, 2013	Shenyang	3rd International Neural Regeneration Symposium (INRS2013), in conjunction with the 5th International Spinal Cord Injury Treatments and Trials Symposium
Biology	14-18 October, 2013	Suzhou	CSHA / ISSCR Joint Meeting on Stem Cells in Science and Medicine
Biology	15-20 October, 2013	Beijing	The 11th World Conference on Animal Production , WCAP2013
Neuroscience	21-25 October, 2013	Suzhou	CSH Asia 2013 Conference on Development, Function and Disease of Neural Circuits
Medicine	28-29 October, 2013	Shanghai	First International Experimental Biology and Medicine Conference on "Interdisciplinary Approaches to Cancer Research" (Free Registration)
Immunology	28 October-1 November, 2013	Suzhou	CSH Asia 2013 Conference on Tumor Immunology and Immunotherapy
Genomics	30 October-1 November, 2013	Shenzhen	The 8th International Conference on Genomics
Metabolism	4-8 November, 2013	Suzhou	CSH Asia 2013 Conference on Nuclear Receptors and Diseases
Environment	17-20 November, 2013	Beijing	Urban Environmental Pollution 2013 Asian Edition (UEP2013)
Bioinformatics	17-22 November, 2013	Shenzhen	2013 EMBO Practical Course - Bioinformatics and statistics for large-scale data
Microbiology	18-22 November, 2013	Suzhou	CSH Asia 2013 Conference on Bacterial Infection and Host Defense
Engineering	7-8 december, 2013	Guangzhou	2013 International Conference on Information Science and Cloud Computing (ISCC 2013)
Engineering	19-21 December, 2013	Hong Kong	2013 Hong Kong International Conference on Engineering and Applied Science
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



8 Press Review*

8.1 Policy & Papers

Chinese Academy of Sciences Launches Academic Committee

The Chinese Academy of Sciences (CAS) recently set up an academic committee to provide advice to the academy on science and technology development strategy as well as perform other duties. The 21-member committee, which is headed by CAS Member QIN Dahe, was formally launched on Aug. 23 in Beijing. The committee was organized as part of a CAS headquarters reform program that aims to improve scientific management at CAS, foster innovation, and fulfill the academy's synergistic potential as a research, educational and scholarly institution. An education committee, think tank committee and development advisory committee were also established earlier this year within CAS as part of this reform drive. All four committees will operate across the entire academy. CAS President BAI Chunli said setting up the academic committee was an "urgent requirement" of CAS reform program. According to BAI, the academy is aiming to focus more of its resources on strategic research efforts in order to reap better results. However, this effort requires approaching matters from a macroscopic level in order to understand the "overall situation" of scientific and technological development. BAI said this approach requires transcending existing administrative and organizational limitations. BAI said CAS would solicit the advice of the academic committee on key decisions and major initiatives of the academy as well as other areas, such as evaluation of research institutes and major scientific projects. The committee is composed of CAS members from its six academic divisions: Technological Sciences; Information Technology Sciences; Earth Sciences; Life Sciences and Medicine; Chemistry; and Mathematics and Physics. More than one-third of the committee members work for institutions not affiliated with the CAS. (source: [CAS](#))

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China's rapid urbanization needs managed: report

China's accelerating urbanization is approaching a critical stage, and how this is managed will have wide ramifications for the outcomes of many of China's present development challenges, reads a Tuesday report on national human development from 2011 to 2012. China's 2013 National Human Development Report, jointly compiled by the United Nations Development Program (UNDP) and the Chinese Academy of Social Sciences (CASS), said in 2011, the number of urban residents for the first time surpassed that of rural ones. The urban population is also forecast to grow by an additional 310 million by 2030. "China is experiencing urbanization at a speed and scale that is unprecedented in human history," said Helen Clark, UNDP Administrator. "By comparison, this same demographic transition took 150 years to occur in Europe and 210 years in Latin America." However, the challenges are immense, as large population migration will make services difficult to keep up with. It will also spike employment demand, increase the demand for resources, and put pressure on sustainable growth. A governance system is needed to cope with this rapidly changing environment. (source: [Global Times](#))

Mechanism set for foreign experts' suggestions

The Chinese government will build a sustainable mechanism for senior foreign experts to give suggestions for China's development, said the country's top official in charge of foreign experts' affairs. Zhang Jianguo, head of the State Administration of Foreign Experts Affairs, said his administration aims to promote its foreign experts recommendation project, which was launched last year, into a new "think tank" for the central leadership. Wei Jianing, deputy director of the department of macroeconomic research of the Development Research Center of the State Council, said that Chinese research institutions are enthusiastic about strengthening cooperation with foreign experts to contribute to the government's decision-making process. (source: [China Daily](#))

Preparation starts on 13th Five-Year Plan

China may be bracing for structural slowdown in its 13th Five-Year Plan (2016-20) as the country's top economic planner starts its mid-stage assessment of the 12th Five-Year Plan (2011-15). The analysis sets the stage for preparing a blueprint for the next period of development. Observers said research will be getting underway this year. The economic development guidelines for the five years from 2016 are seen as the key to determine whether the target of "establishing a moderately well-off and harmonious society" by the end of 2020 can be achieved, they said. The target was set at the 18th National Congress of the Communist Party of China in November last year. It also aims to double its 2010 gross domestic product and per-capita income for both urban and rural residents by 2020. As China's economy has entered into a "structural slowdown", deepening reforms and continuing the opening-up strategy will be the priority for the next five-year blueprint, said Pei Changhong, director at the Institute of Economics at the Chinese Academy of Social Sciences. "The



macroeconomic plan should focus on boosting domestic demand and solving structural problems to support sustainable growth," Pei said. The preparation work for the 13th Five-Year Plan will end in 2015. (source: [China Daily](#))

China gives agricultural modernization 500m yuan boost

The Chinese government has allocated 500 million yuan (\$81.2 million) to promote agricultural modernization, the Ministry of Finance announced Friday. The money will mainly be used to promote large-scale farming; support farmers in joint partnership, family farms or cooperatives; and to boost agriculture-related technological innovation. The money will be channelled to eight provinces, including Jiangsu, Anhui, Shandong and Hunan. In April, the State Council - China's cabinet - rolled out its first major reforms in agriculture since its inauguration, floating schemes to accelerate modernization. (source: [China Daily](#))

Beijing's energy-saving output to reach \$82b

Total output value of Beijing's energy-saving and environmental industry will reach 500 billion yuan (\$82 billion) in 2015, accounting for over 10 percent of the whole country, local authorities said on Friday. Three Beijing commissions -- development and reform, science and technology, and economy and information technology -- jointly issued a development plan of the city's energy-saving and environmental industry (2013-2015). In addition to generating 500 billion yuan in 2015, the added value of the industry will account for 4 percent of the city's GDP, according to the plan. The plan said industry is expected to become a new pillar sector and engine of the Beijing economy. (source: [China Daily](#))

State Council emphasizes energy-saving

The State Council released a guideline to boost the country's energy-saving and environmental protection sector on August 1 and is expected to release preferential policies, according to a posting on the central government's website on Sunday. Preferential policies such as subsidies and government rewards are expected to boost technology upgrade in the sector and social funds are encouraged to take part in major environmental protection projects, according to the guideline. The guideline said that urban environmental infrastructure projects as well as green buildings will get support, and environmentally friendly products will get preference in government purchase. New energy vehicles will account for over 60 percent of the newly added public vehicles in major cities like Beijing, Shanghai and Guangzhou. (source: [Global Times](#))

New green policy gives industries a big boost

China will speed up development of the energy-saving sector and make it a pillar of the national economy by 2015, top policymakers said on Sunday. The



State Council vowed in a statement to spur technological innovation, expand demand for energy-saving products and boost the environmental-protection service industry. According to the State Council, the value of the energy-saving industry's output will reach 4.5 trillion yuan (\$728 billion) by 2015, an average annual growth of 15 percent. (source: [China Daily](#))

China to further boost green industries

China has published measures to help boost green industries as it looks to increase domestic demand and update its economic structure, according to a document issued by the State Council. The country vowed in an industrial development plan last year that it will raise the total output value of environmental protection industries to 4.5 trillion yuan (729.7 billion U.S. dollars) by 2015, or on average a 15-percent yearly increase. The State Council reiterated the goal in its latest document, vowing to spur technological innovation, expand consumption demand of green and energy saving products, and boost the services industry related to environmental protection. In terms of specific policy measures, the central government will direct more of its budget to fund environmental protection industries and encourage eligible companies to issue bonds, according to the document. Efforts will also be made to establish pricing schemes of renewable energy and to push forward tiered prices for household water and gas consumption, according to the document. To further improve market mechanisms, pilot programs for emissions and carbon trading will also be carried out, the State Council said in the document. China will encourage capable domestic companies to undertake overseas projects in environmental protection, and eligible foreign-funded firms will enjoy the same industrial preferential policy with their Chinese counterparts, the State Council added. (source: [Xinhua net](#))

China plots harsher environment law

China on Thursday began soliciting public opinions on a draft amendment to the environmental protection law that proposes harsher punishments for polluters. Public opinion was first sought after the draft amendment's first reading in August 2012. Following those suggestions, the National People's Congress (NPC) Law Committee revised it, and the revised version was submitted to the NPC Standing Committee for the second reading in June. The version for the second reading specifies for the first time that protecting the environment is a basic state policy. The draft also stipulates much harsher punishments for polluters. The amendment is published on the NPC's website, npc.gov.cn, and opinions can also be mailed to the NPC Law Committee. (source: [Global Times](#))

8.2 Voices & Opinions



China's legislators support renewable energy

China's legislators on Monday called for greater support for the development of renewable energy industry which is facing obstacles in planning, purchase system, subsidies and technology. Development of renewable energy must be a priority, with clear goals, as China is suffering poor energy structure, environmental pollution and ecological degradation, said Chen Changzhi, vice chairman of the Standing Committee of the National People's Congress, the top legislative body. Development of renewable energy has contributed to China's economic and social development and improved people's lives, said Chen. Renewable energy prices and subsidies should be improved and innovation encouraged, he said in a report to the committee's bimonthly session. Chen has led a working group to assess the implementation of the Law on Renewable Energy, an important way for the top legislature to exercise supervision. (source: Global Times)

Right urbanization path

What kind of urbanization is needed to make the country's economic growth sustainable and its social progress healthy? There may be different ways of interpreting the central authorities' urbanization strategy, but it is definitely wrong to interpret it as sheer expansion of the size of a city or the creation of new cities. Yet it is obvious that is how a number of local departments have chosen to interpret the central government's urbanization drive. A survey of 12 provinces conducted by a department of the National Development and Reform Commission shows that the 12 provincial capitals will each create 4.6 new urban districts on average. The 144 prefecture level cities surveyed will each build 1.5 new urban districts on average. A typical example is the city of Yan'an in Northwest China's Shaanxi province, which plans to open up an area of 78.5 square kilometers in the mountains to create a new city. While it may be necessary for some cities to expand to accommodate their growing populations, the reality is that some local governments expand the size of their cities simply so they can sell land to boost their revenues. Their mentality is that once roads and other infrastructure are constructed, the land prices will go up and investors will come. Yet, such a development approach is risky for both local and national development. (source: Xinhua net)

Opportunities abound in clean technology

State's support for new environmental initiatives promotes emerging sectors. China's investment in renewable energy will bring vast opportunities and challenges for the country's overall development, a senior official said at a recent high-level summit. Xie Zhenhua, vice-chairman of the National Development and Reform Commission, said investments in renewable energy will hit 1.8 trillion yuan (\$294 billion) during the 12th Five-Year Plan (2011-15). He said the government also plans to spend another 2.3 trillion yuan on energy conservation and reducing harmful emissions to boost the green economy. (source: China Daily)



China promises better environment for professionals

A senior Communist Party of China (CPC) official pledged on Monday to create a favorable environment for professionals to apply their talents. Liu Yunshan, a member of the Standing Committee of the Political Bureau of the CPC Central Committee, made the remarks at a meeting with about 60 top-level scientists and experts in other fields who are enjoying a state-sponsored summer vacation at Beidaihe, a coastal resort in north China's Hebei Province. Entrusted by President Xi Jinping, Liu extended greetings and good wishes to the experts at the meeting. He said the government will take good care of senior scientists who have offered outstanding service to the country and talented professionals who are working in the most needed lines of work. The CPC and government expect to build up a consensus in Chinese society that knowledge and creativity should be honored and respected, Liu said. (source: [Xinhua net](#))

8.3 Thematic Activities

Health

Study Provides Comprehensive Overview of Antibiotic Resistance Gene Reservoir in Human Gut Microbiota

Antibiotic resistance in pathogenic bacteria has been presenting an increasing threat to human health during the last decade, and it is widely accepted that the antibiotic resistance development and spread in microbes can be largely attributed to the abuse and misuse of antibiotics. The human gut is inhabited by a large bacterial population, and this microbiota has a profound influence on human physiology and nutrition. However, there has been increasing attention paid to the gut microbiota as a reservoir for antibiotic resistance genes, but little is known about their diversity and richness within the gut. Recently, HU Yongfei, *et al.* from Prof. ZHU Baoli's laboratory in Institute of Microbiology, Chinese Academy of Sciences, analyzed the antibiotic resistance genes of gut microbiota from 162 individuals of three different populations (Denmark, Spain, and China). A total of 1,093 antibiotic resistance genes were identified in this study. (source: [CAS](#))

TCM seeds from space head to the lab

Traditional Chinese medicine may be the latest sector to benefit from cosmic farming as 150 grams of space-exposed ginseng seeds were delivered to a State lab on Friday. "We hope the space ginseng will be bigger, more resistant to disease and have increased medicinal potency," said Zhou Hua, professor of



Macau University of Science and Technology, the State's top research laboratory in Chinese medicines. Ginseng has long been used in traditional Chinese medicine to enhance immunity, lower blood sugar and combat cancer. The ginseng seeds spent 15 days in space aboard Shenzhou X in June and may take as many as six generations on the ground to show the enhanced characteristics. (source: [China Daily](#))

IPS Researchers Discover New Molecular Pathway to Fight Inflammation

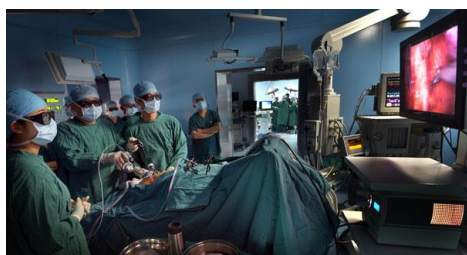
Regulator T (nTreg) cells are suppressive cells that control excessive inflammation and mediate immune tolerance. Foxp3 is a crucial transcription factor for Treg differentiation and function. Since inflammation is a regular event in immune effector responses, it may be necessary to disrupt Treg and Foxp3 function to allow for the facilitation of pro-inflammatory triggers. Recently, CHEN Zuojia From LI Bin's lab at the CAS Key Laboratory of Molecular Virology and Immunology, Institut Pasteur of Shanghai (IPS) in collaboration with PAN Fan's lab at Johns Hopkins University School of Medicine, revealed a molecular pathway by which Foxp3 is downregulated at the protein level in response to inflammatory cues, thus allowing for initial robust effector responses that are required for combating imminent threats to the host. (source: [CAS](#))

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Medical procedures enter 3D age

Doctors wearing 3D glasses perform a radical gastric cancer operation at Tongji Hospital in Wuhan, Central China's Hubei province, Aug 22, 2013. Gong Jianping, director of Tongji Cancer Research Institute, said of the 3D laparoscopic surgery, "The operation is suitable for early and mid-term gastrointestinal cancers. And surgeries have entered the age of 3D." [Photo/Asianewsphoto] (source: [China Daily](#))





TPN729 Gets Approval from CFDA for Clinical Trial

Male erectile dysfunction(ED) affects more than 150 million men worldwide. Currently, treatment for ED predominantly consists of oral Phosphodiesterase type 5 (PDE5) inhibitors therapies. Because of the insufficient selectivity, currently available PDE5 inhibitors also inhibit other PDE isozymes, affecting their target tissues (e.g., PDE1: heart; PDE6: retina; and PDE11: skeletal muscle), which in some cases can cause unwanted side effects and therapy discontinuation. As the unmet clinical needs with current PDE5 inhibitors, research is ongoing to develop even better and safer alternatives. TPN729 is a drug candidate for the treatment of erectile dysfunction (ED). It is a novel, orally available PDE5 inhibitor with high activity and selectivity. Thus it is expected to have fewer side effects in comparison with current available PDE5 inhibitors. TPN729 also shows excellent in vivo potency, low toxicity and superior pharmacokinetic property. TPN729 is discovered and developed by Prof. SHEN Jingshan's group and Prof. JAING Hualiang's groups (DDDC) in Shanghai Institute of Materia Medica (SIMM). On June 25, 2013, TPN729 and its tablets, were approved by China Food and Drug Administration (CFDA) for clinical trial. (source: [CAS](#))

Catching Cancer Early by Chasing It

Reaching a clinic in time to receive an early diagnosis for cancer -- when the disease is most treatable -- is a global problem. And now a team of Chinese researchers proposes a global solution: have a user-friendly diagnostic device travel to the patient, anywhere in the world. As described in the journal *Biomicrofluidics*, which is produced by AIP Publishing, a team led by Gang Li, Ph.D., from Shanghai Institute of Microsystem and Information Technology at the Chinese Academy of Sciences, is developing a portable device for point-of-care diagnostic testing to detect cancer at its earliest stages. It identifies cancer biomarkers, which are biological indicators of the disease that often circulate in the blood prior to the appearance of symptoms. The new device is based on microfluidics -- a technology that has rapidly expanded over the past decade and involves miniature devices that tightly control and manipulate tiny amounts of fluids for analysis through channels at the micro- and nano-scales. Researchers value microfluidic technology for its low cost, speedy analysis of fluids and non-turbulent flows, and small footprint, Li said. (source: [CAS](#))

Tooth generated from stem cells: Chinese scientists

Chinese scientists have successfully grown tooth-like structures from induced pluripotent stem cells (iPS cells), the Chinese Academy of Sciences (CAS) said. The structures were found to possess physical properties, such as elasticity and hardness, that are similar those found in regular human teeth, according to a statement issued by CAS on Tuesday. The research efforts were led by Pei



Duanqing, a researcher at the CAS's Guangzhou Institute of Biomedicine and Health. A related paper has been published online in the journal Cell Regeneration. (source: [Xinhua net](#))

* * *

Food, agriculture & fisheries, biotechnology

QIBEBT Proposes New Strategy for Intragenus Phylotyping of Microalgae

Microalgae play an important role in biological carbon capture and primary biomass production via photosynthesis. Moreover, certain microalgae can serve as potential producers of biodiesel and other renewable fuels due to their high oil content, rapid growth and environmental tolerance. However, current phylogenetic markers (such as ITS) are often unable to accurately distinguish different algae species or strains within a given genus. Therefore, it is important to develop phylogenetic markers with high sensitivity and high reliability. A novel strategy for microalgal phylotyping was proposed by Ph.D. students WEI Li, XIN Yi and their colleagues from Functional Genomics Group, Qingdao Institute of Bioenergy and Bioprocess technology, Chinese Academy of Sciences (QIBEBT). (source: [CAS](#))

Biodiesel Production from Filamentous Oleaginous Microalgae

The core of microalgal biofuel production is to obtain a large number of microalgal biomass through large-scale cultivation robustly at low cost. To date, almost all oleaginous microalgae species used for biofuel are unicellular. However, all the used unicellular oleaginous microalgae species are very tiny in size around 1-10microns, which are nutrient rich and palatable for grazers during cultivation. As a result, mass cultivation is usually crashed away by the swallowing of grazers in the outdoor culture. And also the recovery of unicellular microalgae with tiny size is difficult and costive for harvesting. Therefore, those species with industrial characteristics having high oil content, large size, robustness to contamination, etc would be preferable for the developing of microalgae biofuel. In view of the above problems, Energy Algae Resource Group in Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences, changed the attention on the filamentous microalgae neglected previously. Lots of filamentous microalgal species were evaluated and a strain of Tribonema sp. with the size of 0.5-3mm in length was focused. (Source: [CAS](#))

Revealed: Biological Function of Oocyte-specific Histone H2A Variant for Maintaining Cell Synchrony Division in Early Embryos

Oocyte-specific histone variants have been expected to play significant roles in early embryonic development, but the exact evidence and the biological



function have remained unclear. Recently, a research group led by Prof. Gui Jian-Fang from Institute of Hydrobiology, Chinese Academy of Sciences (IHB) has presented evidence that H2af1o, a new oocyte-specific H2A variant which was identified in 2009 (WU et al., *Biology of Reproduction*, 81: 275-283), is required for cell synchrony before mid-blastula transition in early zebrafish embryos. (source: [CAS](#))

N-carbamylglutamate Improves Absorptive Function of Weaned Piglets

Weaning is a crucial phase in swine production because piglets must rapidly adapt to dramatic changes in their social and physical environments, for example, leaving from their mothers, staying with strangers, and increasing in serum cortisol. The combined effects of these stressors' results in villous atrophy and a sustained impairment of intestinal barrier function, which consequently reduces gut digestive and absorptive capacities. N-carbamylglutamate is a metabolically stable analogue of N-acetylglutamate and it plays an important role in regulating arginine synthesis. Recently, researchers from Institute of Subtropical Agriculture, Chinese Academy of Sciences (ISA), University of Guelph, and University of Manitoba & University of Ottawa, Canada found out that dietary N-carbamylglutamate supplementation enhanced growth rate and the efficiency of feed utilization in weaned Huanjiang mini-pig piglets. (source: [CAS](#))

Scientists Discover Par-1 as a New Component of the Hippo Signaling Pathway

In the development of animals, which is closely controlled by diverse pathways, the regulation of organ size has been a long-standing puzzle. How does an organ ascertain its optimum size? What are the molecular mechanisms that stop organ growth at an appropriate point during development or regeneration? Almost a decade ago, the discovery of the Hippo signaling pathway provided an important starting point for answering these questions. Now, a team of scientists led by Lei Zhang at the Shanghai Institute of Biochemistry & Cell Biology, Chinese Academy of Sciences, has identified a novel component of this pathway, which influences the Hippo protein's phosphorylation status and Hippo-Salvador (another key component of this pathway) association to negatively regulate Hippo kinase activity. Their findings will be published in the open access journal *PLOS Biology* (source: [CAS](#))

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Information & communication technologies

Overseas WeChat users reach 100 million



WeChat, a mobile text and voice messaging application developed by Chinese Internet service portal Tencent, now has more than 100 million overseas users, Tencent vice president Sun Zhonghuai said at a communications forum held on Thursday. The mobile app supports 18 languages and is available in more than 200 countries and regions, Sun said. (source: [Global Times](#))

China expects nationwide broadband by 2020

China will strive to complete broadband coverage of both urban and rural areas by 2020, The State Council, China's cabinet, announced Saturday. The State Council elevated national broadband development as a national strategy and announced a implementation timetable for its development over the coming eight years. The strategy aims to achieve WiFi coverage in key public urban areas by 2013 and fixed broadband coverage for half of Chinese households by 2015, the announcement said. Families in some developed cities will enjoy a broadband speed of one gigabits per second in 2020, the announcement added. The strategy will be carried out in three phases. Fiber optic networks and 3G mobile coverage will be facilitated in 2013 while broadband coverage will be expanded from 2014 to 2015. Broadband network and technology updates will be the key task from 2016 to 2020. A policy on support for information products and services was released on August 14 in a bid to boost domestic demand and fuel economic growth. (source: [China Daily](#))

Faster broadband by 2015

China intends to be thoroughly connected to the internet by 2015, with urban and rural household broadband speeds reaching 20 Mbps and 4 Mbps respectively, according to a blueprint issued by the State Council. The "Broadband China" strategy and implementation plan was posted on the central government's website on Saturday 17 August. It outlined the target and timetable for China to become a leader in international broadband accessibility. By the end of this year, 40 percent of the country's households will have access to fixed broadband and 25 percent of Chinese citizens will be able to access third generation (3G) or fourth generation (4G) mobile broadband services. The nation's broadband penetration rate will be greatly raised by 2015, when fixed broadband coverage of households is expected to increase to 50 percent, while mobile broadband coverage must surpass 32.5 percent, according to targets set by the State Council. Under the strategy, the next few years will see optical fiber to the home (FTTH), or to the building (FTTB) completed in cities by 2015. The third stage of construction will follow from 2016 to 2020. The State Council has stipulated that the gap between China's broadband infrastructure level and that of developed countries must be narrowed, and broadband speeds in urban and rural households will need to reach 50 Mbps and 12 Mbps by 2020. The average fixed broadband download speed in China was 2.93 Mbps in the first half of this year, according to a report released by the Broadband Development Alliance, a third party research organization. "Generally speaking, China's broadband development is at the middle and lower levels across the world. The



situation does not match the country's position as the world's second largest economy," said Fu Liang, a Beijing-based independent telecom analyst. (source: [China Daily](#))

China Unicom tests 4G network

China United Network Communications Co Ltd, known as China Unicom, said on Thursday that it has started testing a TD-LTE 4G network, which it will use if the government doesn't allow it to use its favored FDD-LTE technology in the upcoming 4G licensing process. China's second-biggest mobile operator by subscribers is said to have taken the preemptive action because it expects the government to follow a similar strategy as in its 3G auction, when it first awarded licenses for TD-LTE networks, a technology which is mostly backed by its arch-rival China Mobile Ltd, which has the most subscribers in the country. The government is widely expected to award 4G licenses before the end of the year. And if it licenses TD-LTE networks first, it will give China Mobile a big edge in the 4G market over its competitors. (source: [China Daily](#))

480m trojan attacks on smartphones in China

More than 480 million smartphones in China have fallen victim to malicious software (malware) in the first half of 2013, a number almost equal to the total registered complaints in 2012. More than 450,000 trojans, malware, and malicious advertisement plug-ins were intercepted by 360 Mobile Safe, a leading mobile security product in China, according to a report released over the weekend by the mobile security provider 360. Trojans intercepted on Android phones accounted for 97 percent of the total. Mobile traffic wasting, information theft, and malicious fees are the three most common effects. Over 60 percent of malware takes at least two kinds of malicious action, secretly collecting information on users such as location, phone records and text messages. Information is then uploaded to specific servers, the report said. (source: [China Daily](#))

China Mobile launches own-brand smartphones

China Mobile Ltd officially entered the booming mobile terminal market on Friday as it unveiled its own-brand smartphone models. The China Mobile M701, a 5-inch screen Android-based smartphone equipped with MediaTek Inc's 1.2-gigahertz quad-core processor, is priced at 1,299 yuan (\$212). The China Mobile M601 is a 4-inch screen, dual-core Android smartphone that targets lower-end users with a price of 499 yuan. The two smartphones are produced by original equipment manufacturers, Hisense Group and Shenzhen-based BYD Co Ltd, respectively. They will hit the Chinese market through China Mobile's online and offline outlets this month. (source: [Xinhua net](#))

China likely to issue 4G licenses by year end



Internet users in China are eagerly looking forward to ultra-fast 4G mobile Internet services. The anticipation has heated up following the government's announcement that licenses to operate such wireless system will be issued before the year's end. The fourth-generation wireless service is designed to deliver a speed four to ten times faster than today's 3G system, the most widespread, high-speed wireless service at the moment. China Mobile, China's largest cell phone provider, is now promoting a homegrown 4G standard and hopes to start commercial rollout soon. The core technologies are ready and the company has been ramping up installations of its base stations, which will be shared by both 3G and 4G networks. (source: [Xinhua net](#))

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Nanosciences, nanotechnologies, materials & new production technologies

Interface Chemistry Guided Long-Cycle-Life Li-ion Batteries

Since the first rechargeable lithium ion battery (LIB) was commercialized by SONY in 1990s, LIB becomes one of the most favorite energy storage devices for upcoming mobile electric devices and hybrid vehicles because of their high performance. Recently, in order to meet the industrial and commercial requirement, high-capacity electrochemical active materials based LIB is being vigorously pursued. Unfortunately, this type of materials, always suffer from substantial volume changes during insertion and extraction of Lithium (Li) ion, which causes the collapse of the electrode and shorten the cycle life of cell. Materials science has evolved over the past decades. However, most of research on electrode for energy storage has been focused on active material itself. It is clear that investigating isolated active materials is no longer sufficient to solve all kinds of technological challenges for the development of modern battery infrastructure. Considerable amounts of attentions should be paid on the entire electrode system where studying the interface between individual components within the system is of paramount importance. Recently, Prof. JIN Jian's group at Suzhou Institute of Nano-Tech & Nano-Bionics, Chinese Academy of Sciences (SINANO) report a system-level strategy of designing RGO/SnO₂ composites based anode electrode aims at enhancing the energy-storage performance of RGO/SnO₂-based materials, especially their cyclic performance. (source: [CAS](#))

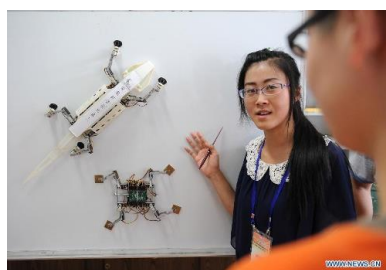
LICP Develops New Method for Fabricating 3D Flower-like BiOCl Hierarchical Nanostructures

As a kind of semi-conducting material with excellent photocatalytic activity, BiOCl has been a hot topic in photocatalysis area. Studies show that the morphology and exposed crystal planes of BiOCl have significant influence on its photocatalytic activity. Compared with conventional nano particles, three-dimensional (3D) BiOCl hierarchitectures composed of nano sheets show better



photocatalytic activity due to their large surface area. However, the current method to prepare BiOCl three-dimensional architectures has certain limitations. Therefore, how to synthesize BiOCl photocatalytic materials with architectures under room temperature has become a challenge. The research group for energy and nano catalytic materials for environment at Lanzhou Institute of Chemical Physics of the Chinese Academy of Sciences (LICP) has fabricated 3D flower-like BiOCl hierarchical nanostructures (HNs) by a facile and rapid in situ oxidation reaction between metallic Bi nanospheres and FeCl₃ at room temperature. The work has received support from the National Natural Science Foundation of China and the Hundred Talents Program of the CAS. (source: [CAS](#))

4th Int'l Conference of Bionic Engineering kicks off in Nanjing



A representative from Nanjing University of Aeronautics and Astronautics presents a wall gecko-shaped robot at the 4th International Conference of Bionic Engineering (ICBE 2013) in Nanjing, capital of east China's Jiangsu Province, Aug. 14, 2013. The ICBE 2013, which kicked off Wednesday at Nanjing University of Aeronautics and Astronautics, attracted about 300 representatives from both China and abroad. (source: [Global Times](#))

3-D printing development may be 'problematic'

Although its application in the technology sector has given 3-D printing a high profile, a number of Chinese entrepreneurs and investors have expressed a pessimistic view of its likely development in the near future. "Some people have said that 3-D printing will bring about a manufacturing revolution, but that's an exaggeration," said Ru Fangjun, founder of HangZhou Xundian Technology Co, which deals in 3-D printing devices in Hangzhou, Zhejiang province. (source: [China Daily](#))

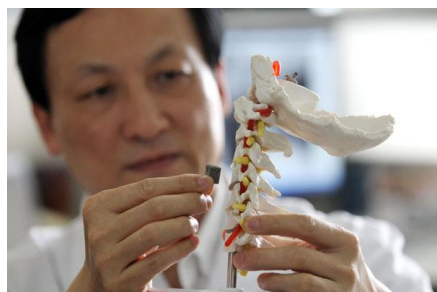
China launches screen you can fold up like paper

The first flexible AMOLED color screen in China, which can be folded up and carried around like a piece of paper, has been developed by a university in Guangzhou, according to China News Service. South China University of Technology announced the news on Aug 9 and said the screen is 4.8 inches in diameter, 100 micrometers thick and no more than 1 gram in weight. The screen can work as a TV display unit while simultaneously functioning as curtains, clothes or fashion accessories, the university said. Several major international companies, like Samsung, LG and Sharp, are also actively



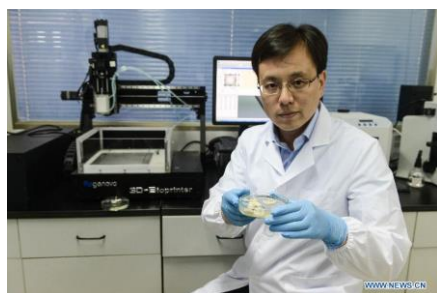
developing the flexible AMOLED display technology, the report said. (source: [China Daily](#))

Printed bones



Peking University Third Hospital has recently announced that its new 3-D printed orthopedic implants have produced good results in clinical trials. Using a printer to produce medical implants, body parts and living organs may sound like science fiction, but it is not. Scientists in a few countries, such as the United States, have used 3-D printing, a process of laying down successive layers of material in different shapes to make a three-dimensional solid object, according to a digital model. The 3-D objects are used in three ways: for surgery simulation, to produce lifesaving medical implants and artificial body parts, and to create living tissues and organs for drug testing. In China, Peking University Third Hospital recently announced its orthopedics department had produced a new type of orthopedic implants using a 3-D printer. The implants have produced good results during clinical trials. "We started the clinical trial to test those implants last year, and all the patients participating in the trial are recovering well," says Liu Zhongjun, director with the department. (source: [China Daily](#))

Biomaterial 3D printer "Regenovo" invented in China



Xu Ming'en, the principal for developing the biomaterial 3D printer "Regenovo", shows the living tissues printed by the 3D printer in the laboratory of Hangzhou Dianzi University in Hangzhou, capital of east China's Zhejiang Province, Aug. 7, 2013. Researchers in Hangzhou Dianzi University invented a biomaterial 3D printer called "Regenovo" in recent days, which could print out human tissues in smaller proportions. The printer has become the first 3D tissue printer with Independent Intellectual Property Rights (IIPR) in China. (Xinhua/Xu Yu) (source: [People](#))

Phononic Crystal Plate Designed for Slow Acoustic Wave

Recently, the slow acoustic wave modes in photonic crystal (PC) have attracted much attention for its potential to design acoustic devices such as delay lines, filters and resonators. Many researchers and scientists are now trying to design these unconventional devices. Researchers from the Institute of Acoustics, Chinese Academy of Sciences have also designed a PCplate for slow acoustic wave. They numerically investigated the propagation of Lamb waves in a two-layered free standing plate by the finite element method. And the plate was composed of a one-dimensional photonic crystal thin layer coated on uniform substrates of different thicknesses. (source: [CAS](#))

A Cross-linked Hydrogel Adsorbent with Special Hg(II) Adsorption Properties Prepared



Hg (II) is the most toxic form among mercury species because it can be methylated by reducing bacteria in anoxic habitats and transformed into methylmercury (MeHg^+ or Me_2Hg). Methylmercury can be adsorbed by aquatic organisms and accumulated in the food web, resulting in the bio-magnification of Hg contamination through the food chain. Thus, removal of Hg(II) ions from water and wastewater becomes very important. Researchers from Xinjiang Technical Institute of Physics & Chemistry, Chinese Academy of Sciences (XTIPC), prepared a chitosan–poly(vinyl alcohol) hydrogel adsorbent by a glutaraldehyde cross-linking method in combination with an alternate freeze–thawed process. (source: [CAS](#))

Chinese firm builds world's strongest crane

A company in north China's Shanxi Province has invented a crane with an elevating capacity of 6,400 tonnes, the world's largest. In a statement released on Thursday, Taiyuan Heavy Machinery Group Co., Ltd. said the crane, which itself weighs over 3,000 tonnes, could lift 6,400 tonnes of goods to a height of 120 meters. The breakthrough marked the dawn of a new revolution for the largest cranes, it said. (source: [Global Times](#))

China-made advanced machine tool exported to Germany

An advanced computer numerical control (CNC) machine tool was shipped to Germany from northeast China's port city of Dalian on Wednesday in the country's first export of cutting-edge equipment to a developed economy. The high-speed five-axis vertical machining center, which consists of a numerical control system, a servo drive and an electric motor manufactured by Dalian Kede Numerical Control Co. Ltd, will be transported to Knuth Werkzeugmaschinen GmbH, a leading global machine tools supplier based in Germany. Wang Weiming, deputy director of the equipment department with the [Ministry of Industry and Information Technology](#), hailed the shipment as "an important milestone for the Chinese machine tools manufacturing industry." (source: [Global Times](#))

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Environment (including climate change)

Chinese scientists asked to improve toilet

Bill Gates is asking Chinese researchers to explore "poop power" in a project worth \$5 million, according to the Bill & Melinda Gates Foundation. The foundation announced on Thursday in Beijing it will allocate grants to select applicants to re-engineer the common toilet to be more environmentally friendly and cost-effective. Each grantee would receive between \$100,000 to \$500,000



to realize their toilet designs, said Professor Li Zifu, with the University of Science & Technology Beijing, which has been entrusted to implement the project. Doulaye Kone, senior program officer of water, sanitation and hygiene with the foundation, said, "China is the first country we have launched such an independent grant, and we hope this will improve access among Chinese inventors to the project." Previously, the foundation launched a global campaign in July 2011 to prompt innovation of a more sustainable toilet. The California Institute of Technology in the United States received a \$100,000 first prize for a solar-powered design, which could transform waste into hydrogen gas and electricity. Few applications from China were received in 2011 probably due to language barriers, according to Kone, who added that cultural backgrounds and needs should be considered for practical designs. (source: [China Daily](#))

Five-year plan to treat water, soil losses

The Ministry of Water Resources announced on Thursday a plan to treat water and soil loss problems over the next five years. The plan, which covers 279 counties across 20 provincial-level regions, aims to treat water and soil losses over 30,000 square km of land during the 2013-2017 period, according to a statement on the ministry's website. It is expected that 70 percent of the land affected by such problems will be treated and the forest coverage ratio in these regions will be raised to 50 percent. The project will not only boost economic growth in local regions, but contribute to environmental protection. (source: [China Daily](#))

Fish ecosystem on Yangtze 'on verge of collapse'

Human activity along the upper reaches of the Yangtze River - such as building hydropower stations and excessive fishing - has pushed its aquatic ecosystem to the verge of collapse, a report released on Thursday warns. Researchers suggested starting a fishing ban along the entire river and enacting a national law to protect the "mother river" of China, as its fishery resources are experiencing a severe recession. The number of fish in four major species has shrunk from more than 30 billion in the 1950s to less than 100 million, and the number of breeds has been reduced from 143 to 17, according to the report released by the Yangtze River Fishery Resources Committee under the Ministry of Agriculture and the World Wide Fund for Nature. (source: [China Daily](#))

Environmental courts failing to prosecute cases

Though China boasts 130 environmental judicial tribunals and collegiate benches, half of the worldwide total, relatively few environmental cases ever make it to trial, China Youth Daily reported on Wednesday. Sun Youhai, head of the China Institute of Applied Jurisprudence of the Supreme People's Court, said at a forum on environmental judicature that more than 300,000 impeaching letter cases related to environmental issues were registered from 2006 to 2010, but that less than 1 percent resulted in court cases. Yuan Xuehong, vice-



president of Kunming Intermediate People's Court, gave two possible reasons for the disparity. The first is that many cases are "solved by administrative penalty, administrative or civil mediation", meaning that no court case is necessary. Second, said Yuan, is the high cost of litigation in environmental cases, which require a high degree of specialized knowledge and expertise. "It's usually hard for the victims to present evidence," Yuan said. He said the latter issue was compounded by a lack of clarity on the meaning of some environmental legislation, making it difficult for lawyers and judges to rule on the guilt of any party. (source: [China Daily](#))

Role of Jasmonate in Freezing Stress in *Arabidopsis* Investigated

Previous studies have revealed that the INDUCER OF CBF EXPRESSION (ICE)–CREPEAT BINDING FACTOR/DRE BINDING FACTOR1 (CBF/DREB1) transcriptional cascade plays a critical role in the cold-response pathways in *Arabidopsis thaliana*. Dissecting crucial upstream regulatory signals or components of the ICE-CBF/DREB1 cascade will enhance the understanding of plant cold-tolerance mechanisms. Prof. YU Diqu and his team of Xishuangbanna Tropical Botanical Garden (XTBG) conducted a study to investigate jasmonate's role in freezing stress in *Arabidopsis* by examining the effect of exogenous application of jasmonate on plant freezing tolerance, the effect of impaired jasmonate biosynthesis and signaling on freezing stress, and the changes in endogenous jasmonate levels in response to cold. (source: [CAS](#))

Effects of Invasive Plants and Global Change on Nematode Communities Investigated

Previous studies show that ongoing global changes could alter impacts of invasive plants on native vegetation. However, there is limited knowledge about the relationships of invasive plants with belowground faunal communities under climate change. With increasing atmospheric CO₂ concentration, the study of nematode communities which are abundant and trophically diverse soil biota, in response to invasive plants under elevated CO₂ can illustrate potential effects of exotic plant invasions on soil ecosystem functioning. Dr. XIAO Haifeng and his colleagues of Xishuangbanna Tropical Botanical Garden (XTBG) conducted a study at Ailaoshan ecological station (24.32° N, 101.01° E) to examine responses of nematode communities to exotic invasive plants and native plants under current and increased CO₂. (source: [CAS](#))

Large Trees Play Key Role in Tropical Forest Biomass Storage – Study

A large-scale study has found that a handful of big trees store up to half the above-ground biomass in tropical forests, raising implications for forest management and climate change mitigation. Trees remove carbon from the atmosphere as they grow, storing it in leaves, woody tissue, roots and organic matter in soil, and playing a critical role in regulating the Earth's climate and





mitigating climate change. Calculating above-ground biomass — which comprises all living biomass, or organic material, above the soil, including stem, stump, branches, bark, seeds and foliage — helps scientists measure the role of forests as carbon sinks in mitigating climate change. The study was led by Ferry Slik, a scientist at the Centre for Integrative Conservation, Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences. (source: [CAS](#))

Cactus 'points' the way for oil spill clean-up

Inspired by prickly cacti, Chinese scientists have developed a new technique for removing oil from water, which could have applications in oil spill clean-up work. An article published in the online scientific journal Nature Communications describes the study by Jiang Lei and his co-workers at the Institute of Chemistry, Chinese Academy of Sciences, whose creation of copper spike arrays have proved to be highly efficient in absorbing oil during experiments. Jiang said the idea came from cacti needles, which can collect water by condensing moisture from the air and directing it to the root of the spines, an ability that keeps the plant hydrated in arid environments, like deserts. Simulating cacti spines, researchers used substances with an affinity for oil, not water, to build conical spikes with a rough surface. These spikes have proven capable of catching micro-sized oil droplets in water. (source: [China Daily](#))

New Understanding about the Estimate of Carbon Storage in Chinese Terrestrial Ecosystems

Carbon storage plays an important role in understanding interactions among climate, ecosystems, and humans; as well as carbon budgets in the biosphere, the atmosphere, and the oceans. Therefore, characterizing global and regional carbon storage more accurately is very necessary. China is an important region for carbon study because of its vast territory with various climate regimes, diverse ecosystems, and long-term human disturbances and land-use history. Carbon storage in ecosystems in China has been extensively investigated in the past two decades. However, different methodologies and various spatial-temporal scales have resulted in discrepancies in the magnitudes and variations of carbon storage, and thus, make the comparison of carbon storage at national and regional scales difficult. In order to approach a more accurate estimate of carbon storage and a better understanding of global and regional carbon budgets, Professor NI Jian's group from the State Key Laboratory of Environmental Geochemistry (SKLEG), Institute of Geochemistry, Chinese Academy of Sciences (IGCAS), synthesized the current knowledge on carbon storage in terrestrial ecosystems in China based on available data and publications. The group also analyzed the advantages and disadvantages of different methodologies and available data sources. (source: [CAS](#))

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Energy

China builds massive-capacity nuclear generator

Dongfang Electrical Machinery Co. Ltd (DFEM), a major Chinese power generating equipment manufacturer, has completed construction of a 1,750 MW nuclear generator and started transporting it to a nuclear power plant in south China on Saturday. The 1,750 MW generator currently has the biggest per-unit installed capacity among the nuclear generators in the world, according to the DFEM, which is based in southwest China's Sichuan Province. The generator is being sent to the Taishan nuclear power plant in south China's Guangdong Province from the company's production base in Deyang City, Sichuan Province. DFEM will provide two such generators for the nuclear power plant. DFEM has produced 14 nuclear generators so far with a total installed capacity of 15,790 MW. The Taishan nuclear power plant is a joint venture of China Guangdong Nuclear Power Holding Co. Ltd (CGNPC) and Electricite de France. (source: [China Daily](#))

Unique solar plant set for power grid

The first tower-type solar thermal experimental power plant, under independent intellectual property rights in China, is ready to be connected to the power grid, Qianlong.com reported. With a total capacity of 205 mW, the plant has an annual output of about 1.95 million kilowatt hours. Launched in 2007 and finished in 2012, the plant, Badaling solar thermal experimental power plant, is in Yanqing county in [Beijing](#) and covers 19,200 square meters. "Because there is no precedent in China, the project was started without any technical parameters and design specifications. The design of the heliostat, for example, was finalized after four generations' research," said Ma Guangcheng, the head of the plant. Compared with a traditional thermal power plant, the solar plant can save 663 tons of coal equivalent annually and reduce emissions of carbon dioxide by 2,336.6 tons, sulfur dioxide by 17.5 tons, nitric oxide by 7.8 tons and dust particle by 136.3 tons, Ma said. The plant is also the biggest tower-type solar thermal power plant in Asia. (source: [China Daily](#))

World's highest wind farm built in Tibet

Major wind farm developer Longyuan Power said Thursday that it has completed installing five wind turbines on a wind farm located about 4,900 meters above sea level in Tibet, making the farm the highest in the world. The company plans to install 33 wind turbines on the farm, which is located in Naqu Prefecture in southwest China's Tibet Autonomous Region. With 28 more turbines to go, the farm is scheduled to be connected to the grid at the end of the year. The wind turbines are supplied by Guodian United Power. Tibet is rich in clean energy resources, including wind power, but its high altitude means the turbines will need to deal with low temperatures, low air density and high wind speeds. Wind farm developers are looking to start projects in high-altitude and



low-wind speed areas as technology improves. Once completed, the project will help ensure power supplies in Naqu, Longyuan said. (source: [Xinhua net](#))

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Transport (including aeronautics)

Beijing, Moscow to deepen jet research

Vice Premier Wang Yang said on Tuesday that China is willing to accelerate joint research into long-range, wide-body jets and heavy-duty helicopters with Russia. Wang made the comment when meeting with his Russian counterpart, Dmitry Rogozin, in Harbin, capital of Northeast China's Heilongjiang Province. The two officials are respective chairmen of the Joint Commission for the Regular Meetings of Heads of Government of China and Russia. Wang didn't give any details about the progress of the joint research. China and Russia's mulling of cooperation on the two programs was revealed as early as 2011. During a visit to Beijing last June, Russian President Vladimir Putin said the two countries were in discussions on expediting the research on jointly manufacturing long-range, wide-body aircraft and heavy-lift helicopters, while continuing a cooperative program focused on the aviation sector. (source: [Global Times](#))

China's 1st modern tram network begins trial operation

A tram runs in Hunnan New District of Shenyang, capital of northeast China's Liaoning Province, Aug. 15, 2013. The tram network in Hunnan New District, China's first modern tram network, including four lines with the total length of 60 kilometers, began trial operation on Thursday 15 August and is expected to be put into official operation on Sept. 15. (source: [Global Times](#))



China boosts railway development, more investment expected

State-owned railway giant China Railway Corporation (CRC) has announced a plan to raise fixed-asset investment to 660 billion yuan (106.5 billion U.S. dollars) this year to boost railway development. The amount, 10 billion yuan more than the investment target set earlier this year, has been interpreted as a signal that greater investments will be made in infrastructure to boost the economy, sources with the CRC said. About 5,500 kilometers of railway lines will be put in operation, bringing the total length of railways in operation to 100,000 km by the end of 2013. Express rails are expected to exceed 10,000 kilometers. In the first seven months of this year, the CRC has invested 261.7 billion yuan in railway fixed assets, up 16 percent year on year. The company also announced bidding worth more than 50 billion yuan since its establishment



in March for locomotives, express trains and cargo carriers. (source: [Xinhua net](#))

China's C919 to break Boeing, Airbus dominance

China's first domestically produced large passenger aircraft C919 is expected to have its engines installed and take to the skies by 2015, China News reported citing a senior engineer. The narrow-body airliner, designed into three types of cabin configuration, has the biggest capacity of 180 seats in a high-density class. It can also accommodate 168 seats in an economy class and 156 seats in a business and economy mixed one. Zhang Yanzhong, a member of Chinese academy of engineering and an advisor to the C919 program, said the single-aisle aircraft built by the Commercial Aircraft Corporation of China (Comac) has better performance in safety, fuel consumption and passenger experience than the Boeing 737 and Airbus 320, and is likely to break their duopoly of the airliner market. By the end of 2012, the C919 already had 380 orders, according to the Comac. (source: [China Daily](#))

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Socioeconomic sciences & the humanities, archaeology & paleontology

Early humans lived in North China 1.6 million years ago, say scientists

A study of the magnetic properties of an archaeological site in North China reveals human occupation far earlier than previously thought. In a paper published in the scholarly journal Scientific Reports, Chinese Academy of Sciences geologist Hong Ao and his team determined that tools and other artifacts found at the Shangshazui Paleolithic site in China's Nihewan Basin were deposited there between 1.6 and million 1.7 million years ago. Previously, the artifacts were thought to be 1 million years old. "[The site] represents the oldest evidence of early human occupation in North China," writes Dr. Ao, in an email interview. Determining the ages of stone artifacts in North China is tricky; unlike the famed Olduvai gorge in Tanzania, rocks there don't contain volcanic materials suitable for radiometric dating. So instead, the team used a technique known as paleomagnetism. (source: [CSM](#) via CAS)

China publishes Tokyo Trials book collection

A collection of 80 books detailing the post-World War II Tokyo Trials has been published by the Shanghai Jiao Tong University Press, authorities with the press said on Wednesday. The collection, the first of its kind published by China, contains records covering all 818 trials held from May 3, 1946 to November 12, 1948. Publication of the collection represents a great step forward for Chinese study of the Tokyo Trials. The International Military Tribunal



for the Far East (IMTFE) formally prosecuted 28 Japanese Class-A war criminals, including Hideki Tojo, the former prime minister of Japan. The tribunal lasted for more than two and a half years, with the court sentencing Tojo and six other criminals to death. The Shanghai Jiao Tong University Press, together with the National Library of China, had dispatched researchers to archives and libraries in United States and Japan to collect material. Japan published its own collection of books on the trials in 1968. The IMTFE was the biggest post-WWII international trial in terms of scale and duration, surpassing the Nuremberg trials. (source: [China Daily](#))

Chinese professor warns of 'democracy trap'

A Chinese associate professor on Tuesday cautioned that developing countries should be vigilant against "democracy trap" in the wake of Egypt's deadly clashes. The remarks by Ding Long, associate professor at the University of International Business and Economics, came in his article carried by the People's Daily on Tuesday. The deadly violence and clashes between Egyptian armed police and thousands of protesters showed that Egypt's democratic transition over the past two years has resulted in a standstill, Ding said. Egyptians have failed to enjoy the benefits brought by proper democracy, with their personal security and social stability now at stake, Ding added. Egypt is no exception among countries transition to democracy, according to the professor's observation, as political turbulence has almost been a derivative of democratization in many authoritarian states. "Democratic transition is still premature for many developing countries whose economic and social development cannot match up with the transformation," Ding said. "As a result, national and religious conflicts that had once been concealed by authoritative rule broke out during the process of democratization." There is more to democracy than just winning elections, and the spirit of inclusiveness and compromise constitute the core culture of democracy, Ding said, adding Egypt's transformation has been regarded as a zero-sum game by its political forces due to a lack of "democracy-friendly" political culture and citizenship. (source: [China Daily](#))

Companies focus more on innovation, less than expansion

"Chinese consumers are increasingly opting for quality goods at higher prices and adopting online shopping and social media to gather product information, which are the two key trends driving company strategy in China," the report said. The results are based on an annual survey of 89 companies, most of which are MNCs, co-conducted by the US consulting firm and the American Chamber of Commerce in Shanghai. "In the past it was all about seeking new opportunities, but now it's more about developing your core competitiveness and do what you do the best." Said Steven Veldhoen, a partner with Booz & Co. "There are companies that used to adopt to market changes very quickly but didn't build their internal strength. These companies are really suffering from current trends," said Adam Xu, a director at Booz&Co in Shanghai. "China is



still a growth market, but it's shifting from a mode of extensive growth to a mode of intensive growth," Wang said. (source: [China Daily](#))

Zoroastrian tombs found in Xinjiang

Archaeologists with the Chinese Academy of Social Sciences say they have excavated an ancient cluster of rare Zoroastrian tombs on the Pamirs Plateau, in west China's Xinjiang Uygur Autonomous Region. The tombs were found in Xinjiang's Taxkorgan Tajik Autonomous County, a region neighboring Afghanistan and Pakistan, at an altitude of 3,050 meters. Carbon dating indicates the tombs were constructed 2,500 years ago during the Spring and Autumn Period. They were arranged on a platform, with lines of black and white stones stretching alongside like sun rays. A Zoroastrian "flame pot" was also found in the tomb. About 30 centimeters in diameter, this round wooden pot had 15 burned pebbles inside. It might be the oldest such pot ever discovered. (source: [Global Times](#))


3,000-year-old nomad shields excavated in Xinjiang

Archaeologists have excavated a set of stone shields in Northwest China's Xinjiang Uygur Autonomous Region which they believe were used in sacrifices by nomads nearly 3,000 years ago. The shields were discovered by Huahaizi (sea of flowers) Lake in the Altai mountains, which borders Mongolia. The lake shore meadow is home to huge stone relics, including what archaeologists believe to be the largest temple of sun on the Eurasian steppe. The area is strewn with numerous deer stones. "Initial researches show the shields could date back to the late Bronze Age, roughly 3,000 years ago," said Lyu Enguo, researcher with Xinjiang's archaeological institute. Lyu describes the discovery as a "breakthrough" for research on the life of ancient nomads. (source: [Global Times](#))

Jurassic fossil may help to solve evolution mysteries

A new Jurassic fossil from northeastern China may help to shed light on how multituberculates, the most evolutionarily successful and long-lived mammalian lineage in the fossil record, evolved, a study showed. The 160 million-year-old fossil is a newly discovered species called *Rugosodon eurasiaticus*, with the nearly complete skeleton indicating that its teeth were adapted to gnawing plants and animals alike and its ankle joints were highly adept at rotation. These adaptations helped the mammals to thrive although threatened by dinosaurs and to survive beyond the dinosaurs' mass extinction 65 million years ago. The study conducted by Chinese and American scientists was published in *Science*, one of the world's top scientific journals, on Friday. (source: [China Daily](#))

CASS report urges labor camp reform



A blue paper issued Monday called for the Chinese government to reform the country's labor camp system, or *Laojiao*, labeling it outdated and a major threat to citizens' freedom. According to the Annual Report on China's Political Development (2013) released by the Institute of Political Science of the Chinese Academy of Social Sciences (CASS), the labor camp system in its current form is antithetical to the idea of procedural justice, because the police can investigate and pass judgment on a case without the supervision of either the court or procuratorate. The current system is aimed at offenders whose activities constitute a minor violation of the law but not a criminal offence and allows the police to detain suspects for up to four years, a term which often eclipses those handed down for criminal violations. The report called attention to a number of recent high-profile instances where the abuse of the labor camp system has sparked heated public debate about whether or not the controversial system should be abolished. (source: [China.org](http://china.org))

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Space

NSSC Scientists Reveal the Control Effect of Solar Wind on the Geomagnetospheric Substorm Properties

Geomagnetospheric substorm is one of the major disturbances occurred in Earth's magnetosphere, lasting from a period of one to three hours in most cases. As one of the most important energy input, coupling and dissipation process in geospace, it can cause the interruption of radio communication in high latitudes and the charging effect of GEO satellites. Though for decades, study of substorm was under heated discussion among space physicists, fundamental physical problems concerning substorm are still unsolved. The occurrence and involution of substorm are believed to be closely correlated to the states of Interplanetary Magnetic Field (IMF) and solar wind plasma, yet the exact quantitative relation and physical mechanism are still unknown. Recently, by statistically analyzing 379 IMF southward turning events during 1996-2011, LI Hui, WANG Chi, and PENG Zhong at the State Key Laboratory of Space Weather, National Space Science Center, breaks the deadlock and revealed the control effect of solar wind on geomagnetospheric substorm properties. (source: [CAS](http://cas.ac.cn))

China civilian technology satellites put into use

China's civilian technology satellites have officially been put into use, said the State Administration of Science, Technology and Industry for National Defence (SASTIND) on Wednesday. The satellites, named Practice-9 A and Practice-9 B, were developed by an affiliate company of the China Aerospace Science and Technology Corporation. They are the first in a series of civilian satellites designed for technological experimentation, said SASTIND. Development of the



satellites is crucial for narrowing the space technology gap between China and other countries, said Guo Baozhu, a chief engineer of the Practice-9 satellites. "The satellites can play an important role in promoting space technology innovation and application, as well as reduce risks of development," said Guo. The satellites will be used to experiment with domestically developed components, satellite formations and inter-satellite measurement, according to SASTIND. China successfully launched the Practice-9 A and Practice-9 B satellites into space on October 14, 2012. (source: [China Daily](#))

Beidou navigation public platform uses satellite technology

Beijing is going to set up a navigation platform across the city, covering areas such as public security, transportation and agriculture. For most drivers, a good navigation system can point them in the right direction. But that's not all it can do. Here in the capital, Beijing is ready to become what's called a smart city. With the help, in part, of the country's satellite navigation system known as Beidou, which in English means the Big Dipper. Liu Dong, Deputy Manager, Beidou Navigation Service Company, said, "The platform will provide services for government, industry and individuals. Beidou will make it easier for users to locate other people. This function is particularly suitable for those looking after the elderly and children." The Beidou navigation public platform is expected to cover 100-thousand users this year, half of them domestic users. The number is expected to hit 300-thousand by next year, and 500,000 by 2015. (source: [People](#))

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People & Higher Education

Hebei, Renmin Univ to work on development

Renmin University of China will cooperate with Hebei in founding a new institute in Zhengding county in the capital Shijiazhuang, targeting North China with focus on the Bohai Rim, Beijing-Tianjin-Hebei regional development, urbanization and economic growth strategy in the province and improvement of environment quality. "This joint program, based on the strong research ability of the university, will act as a scientific think tank to boost the local economy in an all-around way," said Feng Huiling, executive vice president of Renmin University. In addition, Hebei already has had a joint program with Tsinghua University since 2002, providing a platform to turn high-technology from the top university into products. The program has fueled the economy and cultivated talent for years. (source: [China Daily](#))

China expands financial aid to college students



China granted about 54.8 billion yuan (\$8.96 billion) to college students nationwide in 2012, an increase of 6.44 percent year on year. China has provided a full set of financial aid to college students, including scholarships, stipends, student loans as well as tuition waivers, in a move to boost education equality, Zhang Guangming, director of the China National Center for Student Financial Aid, said on Sunday. According to official statistics, 1.4 billion yuan was granted to 95,000 students as national scholarship, 3.4 billion yuan given to 683,100 students as national encouragement scholarship, and 13.6 billion to 4.86 million students as stipends in 2012. (source: [China Daily](#))

Global universities ranked by survey

Seventeen of the top 20 universities ranked by a Chinese research center are US schools, according to a study released on Thursday. Harvard tops the list for the 11th time, according to the survey by the research center of Shanghai's Jiaotong University. The survey, called the 2013 Academic Ranking of World Universities, covers more than 1,200 universities and the top 500 are picked by six indicators, including: number of Nobel Prize and Fields Medal winners on the faculty, the number of "highly cited" researchers and the number of faculty articles published in Nature and Science magazines. The top five include Stanford, Berkeley, and MIT. The top 10 also includes CalTech, Princeton, Columbia and the University of Chicago. Only Berkeley and MIT changed places in the ranking since last year. The ranking released Thursday also puts three European schools in the top 20: Britain's Cambridge is fifth; Oxford is 10th, and the Swiss Federal Institute of Technology Zurich is 20th. In the Asia-Pacific region, the University of Tokyo and Kyoto University are among the top 30. However, the transparency and reliability of the ranking have triggered some debate as Jiaotong itself was ranked third in mainland China, and at 167 overall. It also arguable that Shanghai's Fudan University has overtaken prestigious Peking University as the mainland's No 1 school. (source: [China Daily](#))

Sino-US university welcomes first students

The first students scheduled to attend New York University Shanghai (NYUSanghai) this fall were present at a welcoming ceremony held on Monday. The 295 students include 145 international students who registered on Sunday, three weeks before the scheduled start of the fall semester. The three-week orientation period will give the students an opportunity to get to know each other and adapt to their new environment, said Ye Tiange, a freshman from east China's Zhejiang Province. As China's first Sino-US university operating as an independent legal entity, the institution is jointly run by New York University and East China Normal University. (source: [Global Times](#))

Imbalance seen in Sino-US talent exchanges



China and the United States are reporting a huge imbalance in attracting talented people from the other side, with an expert calling for more Chinese and American government support to encourage talent mobility between the two countries. A new round of talent flow will be aroused with the development of globalization, said Wang Huiyao, president of the China Global Talents Society, at a symposium on global talent movement on Thursday. Wang said that the number of Chinese students in the United States has surged in the past few years, increasing from 67,723 in 2007 to 194,029 in 2012. In the meantime, an increasing number of Chinese junior, particularly those middle school students, are studying in the United States, up from 65 in 2005 to 6,725 in 2010, according to the Chinese talents society. "Although China is seeing soaring numbers of students studying in the United States, the number of US students to China has remained relatively stable in recent years," Wang added. The number of US students studying in China rose to 14,596 in 2011 from 11,064 in 2007, an unparallel pace compared with the upsurge of Chinese students in the US. He suggested the Chinese government strengthen its projects and policy on overseas talents, lower Chinese green card requirements and focus on global entrepreneurs and innovators, so as to attract more foreign talented people. (source: [Global Times](#))

China builds education information databases

China is building national education information databases in a bid to boost the management of schools, students and teachers, the [Ministry of Education](#) revealed on Monday. This year, the ministry and relevant authorities will focus on establishing digital information databases covering every student and teacher across the country, according to the ministry. They will complete a database for information on schools' outlay, assets and facilities in 2014, the ministry said. (source: [Global Times](#))

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Research infrastructures

New Results from Daya Bay: Tracking the Disappearance of Ghostlike Neutrinos

Daya Bay neutrino experiment releases precision measurement of subatomic shape shifting and new result on differences among neutrino masses The international Daya Bay Collaboration has announced new results about the transformations of elusive, ghostlike neutrinos, particles that carry invaluable clues about the makeup of the early universe. The latest findings include their first data on how neutrino oscillation – in which neutrinos mix and change into other “flavors,” or types, as they travel – varies with neutrino energy, allowing scientists to measure a key difference in neutrino masses known as “mass splitting.” The new results are based on four times the data, with twice the



precision, of the first Daya Bay results released last year, which established the value of the third and final neutrino “mixing angle.” Mass splitting represents the frequency of neutrino oscillation. Mixing angles, another measure of oscillation, represent the amplitude. Both are crucial for understanding the nature of neutrinos. The Daya Bay Experiment is located close to the Daya Bay and Ling Ao nuclear power plants in China, 55 kilometers northeast of Hong Kong. The Daya Bay Collaboration includes more than 200 scientists from six regions and countries. (source: [China Daily](#))

The First Pilot-scale Production Platform of Metallofullerenes Developed

Scientists from the Institute of High Energy Physics (IHEP) recently announced that the first pilot-scale production platform of metallofullerenes had been developed. In the review meeting, experts concluded that the platform meeting with the design requirements was an innovative achievement. The platform is the first pilot-scale production line of metallofullerenes in the world, which aims to produce metallofullerenes in a closed system, continuously, automatically and pollution-free. The platform includes all the steps from the arc discharge synthesis of metallofullerenes to the 99.5% purified product. With this platform, the quantities of these materials could be further scaled up. Several patents have been licensed. (source: [CAS](#))

Rare images from the deep blue

The Chinese manned deep-sea research submersible *Jiaolong* aboard its support ship *Xiangyanghong 09* on Aug 11, after finishing its third expedition since Aug 7 in northeastern Pacific. *Jiaolong* explored deep sea resources, paving the way for future mining activities, and also spotted a variety of exotic sea creatures. [Photo/Xinhua] (source: [China Daily](#))



China signs world-leading astronomical project

The National Astronomical Observatories of China (NAOC) signed the Thirty Meter Telescope (TMT) Master Agreement on Friday, a global project that will explore mysteries of the Universe by using next-generation telescopes. At a signing ceremony in Hawaii, where the telescope will be constructed in April 2014, China jointly signed the agreement with other international parties, including the United States, Canada, Japan and India, marking a major step forward in the creation of a revolutionary astronomical facility. (source: [Global Times](#))

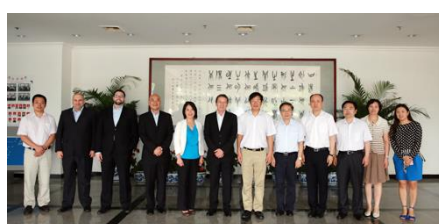
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International S&T relations



NSFC President Yang Wei Meets with Leibniz Guests

On July 8th, Prof. Yang Wei, President of NSFC met with the German delegation headed by Prof. Dr. Karl Ulrich Mayer, President of the Leibniz Association. Prof. Yang Wei expressed his warm welcome to Prof. Dr. Mayer and introduced the latest developments of NSFC to the guests. Prof. Dr. Karl Ulrich Mayer expressed his thanks to Prof. Yang and made the introduction about the Leibniz Association. Both sides expressed the determination to promote cooperation and exchange between Chinese and German researchers. Prof. Lu Rongkai, Deputy Director General, Bureau of International Cooperation of NSFC was also present at the meeting. (source: [NSFC](#))



NSFC VP Meets with Wiley Delegation

Prof. He Minghong, Vice President of NSFC met with the Wiley delegation headed by Dr. Stephen M. Smith, CEO of John Wiley & Sons, Inc. Prof. He extended his welcome to the delegation and briefed on the profile of NSFC. He pointed out that NSFC has always been attaching pivotal importance to publishing and sparing no efforts in disseminating its funding results, so as to proffer the public the access to information. Dr. Smith expressed his appreciation for this visit invited by NSFC. He introduced that, as a leading publishing house worldwide, Wiley has witnessed the development of science and research capacity in China and the dramatic increase of publications by Chinese scientists. As a science funding agency, NSFC's funding results are mainly published in the form of research papers, so it is Wiley's hope to seek future opportunities to cooperate with NSFC in areas of mutual interest. (source: [NSFC](#))

China Funds Five Centres to Extend South-South Ties

China's science academy is to back five centres of research excellence to extend collaboration with developing world scientists in the fields of climate, water, biotechnology, green technology and space technology for disaster mitigation. The five existing centres are housed within institutes of the Chinese Academy of Sciences (CAS) and will get US\$6.5 million over the next three years from the academy to do joint research projects. The funding will also go towards organising workshops, training and PhD programmes through the existing wider network of CAS-TWAS (the World Academy of Sciences) Centres of Excellence and the TWAS-UNESCO Associateship Scheme at Centres of Excellence in the South. This will allow TWAS centres to go beyond their usual three-month exchanges of researchers to also organise workshops, according to executive director of TWAS, Romain Murenzi. "It will give them more capacity to carry out activities with TWAS," he tells SciDev.Net. (source: [CAS](#))

Minister Wan met European Commission Vice President and Commissioner for Industry and Entrepreneurship Antonio Tajani



On 18 July, Minister Wan Gang met the visiting European Commission Vice President and Commissioner for Industry and Entrepreneurship Antonio Tajani and his delegation. Both sides exchanged in-depth opinions with regard to promoting EU-China S&T innovation cooperation, in particular the space cooperation. Minister Wan said that the signing of the Joint Declaration on EU-China Innovation Cooperation Dialogue and the Space S&T cooperation on the occasion of the 15th EU-China Summit in 2012 marked a new phase for EU-China innovation collaboration that covers space. The EU and China, based on their common goals, similar ideas and high compatibility, shared great potential for collaboration. In particular, both sides are faced with many common challenges such as ageing, health, environment, energy conservation and emission reductions. It is of great significance for economic growth, job creation and sustainable development that both sides strengthen cooperation in green innovation. Vice President Tajani said he agreed with Minister Wan's opinions. The theme of his visit to China was "mission for growth". The EU and China should deepen their collaboration in the fields such as entrepreneurship and cluster innovation, so as to make further contributions to the economic growth and social progress on both sides. Director-General for Hi-tech Department Zhai Yuhai, Deputy Director General for International Cooperation Department Ma Linying, and Director General for National Remote Sensing Centre Liao Xiaohan attended the meeting. (source: MOST)

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