

**Dear Readers,**

In this month's edition of the **EURAXESS Links China Newsletter** we brief you on the new Unified Patent Court for the European Union established earlier this year, the latest step in the development of the "EU patent package" which creates a unitary patent with uniform protection within the territory of the participating 25 European Union Member States.

The **News & Developments** section starts with a quick overview of the different kinds of EURAXESS Links China events you will from now on hear about. They have been designed so as to answer needs and be of practical use to you, members of the research community in China, and to be convivial and pleasant occasions as well. We hope to see you in numbers at these events, starting with the first one on 18 April, which we announced in the previous edition of this newsletter and for which a [detailed programme is now available](#). See the **Events** section for more details (registration still open at [china@euraxess.net](mailto:china@euraxess.net)).

EU announcements include the publication of the EU Innovation scoreboard while EU Member States keep opening joint labs in China, as shown this month with new facilities launched by German public and private institutions.

The **Grants & Fellowships** section features the usual list of research funding opportunities, including the last calls for the Marie-Curie fellowships under FP7 that have been launched on 14 March with a deadline in August this year. The good news is that individual fellowships will continue to be offered under Horizon 2020, the new research European research funding programme that will replace FP7 from next year until 2020.

Several positions in European universities engaged in joint programmes with Chinese counterparts or carrying out research projects on China, are offering **Jobs** and positions for both junior and more senior researchers.

Among the main Chinese science-related news featured in this month's **Press Review**, the release of the Nature Publishing Index 2012 Asia-Pacific received a lot of coverage by Chinese media which highlighted the fact that China may soon surpass Japan as the Asia-Pacific leader in research output. The fact that no cities from mainland China appears in a ranking of the ten most innovative cities in Asia-Pacific shows though that work remains to be done to make China an innovation-driven economy and society.

We wish you a pleasant read.

With best regards,

**Jacques de Soyres**

[EURAXESS Links China](#) Country Representative

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### Unitary Patent Protection – Historic Achievement for the EU

On 19 February 2013, 24 member states (MS) signed an agreement sealing the establishment of a [Unified Patent Court](#) (UPC) for the European Union (on 5 March 2013 another MS joined the signatory countries; see [Unitary Patent - Ratification Process](#) for the current state of ratification and the list of participating countries; the only two exceptions are Italy and Spain). The UPC is the third element of the so-called “**EU patent package**” – a legislative initiative agreed upon on 11 December 2012 by the MS and the European Parliament after nearly four decades of discussions and failed agreements (for a detailed history of the unitary patent protection process see [The long road to unitary patent protection in Europe](#)).

#### What is the “unitary patent package”?

The 'unitary patent package' consists of three components:

- a [Regulation \(EU, No 1257/2012\)](#) by the European Parliament and the Council creating a European patent with unitary effect (or 'unitary patent') (adopted on 17 Dec 2012);
- a [Council Regulation \(EU, No 1260/2012\)](#) establishing a language regime applicable to the unitary patent (adopted on 17 Dec 2012);
- an [international agreement \(No 16351/12\)](#) among Member States setting up a single and specialised patent jurisdiction (the 'Unified Patent Court').

#### **Infobox: What is a patent?**

A patent can be granted for any inventions having a technical character provided that they are new, involve an inventive step and are susceptible of industrial application. A patent can cover how things work, what they do, what they are made of, and how they are made. Anybody - an individual or a company or an institution - can apply for a patent. Patents encourage companies to make the necessary investment for innovation. There would be little incentive otherwise for individuals and companies to devote the necessary resources to research and development (for more detailed information see [Patents - FQA](#)).

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\* Article submitted by the German Aerospace Centre - Project Management (DLR-PT)

## What are the main advantages of the new initiative?

As the [official website of the European Union](#) explains, there are four main advantages that the reform package will bring:

- It will create a unitary patent with uniform protection within the territory of the participating 25 Member States;
- The unitary patent will be available on a one-stop shop basis at affordable costs, as it will be centrally granted by the European Patent Office and no further validation requirements need to be fulfilled and applications can be filed in any language;
- It will create a unified and specialised jurisdiction in patent matters for the participating Member States, and thus avoid an unnecessary duplication of litigation cases before the various courts of the various Member States concerned, and enhance legal certainty; and
- It will ensure the dissemination of patent information in all languages of the European Union through high-quality machine translation services which will be available online and free of charge.

The single unitary patent option will offer those who wish to protect their invention in Europe huge cost advantages and reduce the administrative burden.

### Cost reduction and language solution

When the new system is up to speed, an EU patent may cost just €4,725, compared to an average of €36,000 needed today, says the European Commission (for a comparison EU-USA-China see [Closing the competitiveness gap](#); for a costs comparison old system – new system see [Costs comparison: "Classic" European Patent versus new Unitary patent](#)).

Applications for European patents can be filed in any language, as the [European Union](#) states. Yet applicants have to provide a translation of the application into English, French or German which are the official languages of the EPO (if the application was not filed in one of the official languages). Under the new translation regime applicable to the creation of the unitary patent protection, SMEs, natural persons, non-profit organisations, universities and public research organisations having their residence or principal place of business within any of the 27 EU Member States will get a compensation of all translation costs up to a ceiling if the application was filed in one of the official languages of the European Union that is not an official language of the EPO.

The European patent is granted in one of the three EPO languages. High-quality machine translations – on-line and free of charge – will soon be available in all languages. The European Patent Office (EPO) is already providing a machine translation service for 13 languages (between English and Danish, Dutch, German, Finnish, French, Greek, Hungarian, Italian, Norwegian, Polish, Portuguese, Spanish and Swedish). By the end of 2014 the service is expected to cover 32 languages, including all languages of the European Union, plus important non-European languages such as Chinese, Japanese, Korean and Russian. The machine translation service "Patent Translate" can be accessed via the

following [website](#). (For a graphical overview see “[Unitary Patent Protection - How does it work?](#)”)

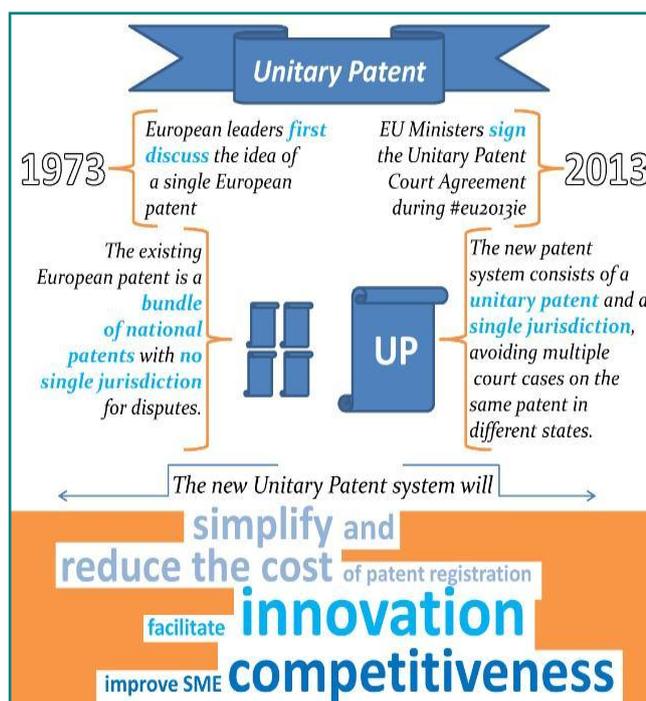
## A Voice from the EU

As Commissioner Michel Barnier said in a [statement regarding the unitary patent reform](#), this step is expected to result in a better stance for the EU in competing with the US and China patent protection-wise. “In the United States, in 2011, 224 000 patents were granted, in China 172 000 while here in Europe only 62 000 European patents were delivered. One of the reasons for this difference is without a doubt the prohibitive cost and the complexity of obtaining patent protection throughout the single market. The new texts adopted open the way to simplified procedures and a reduction by one-seventh in the costs for our businesses of protecting their innovations in 25 EU countries. ... With this far-reaching agreement, the European Parliament and the Council bring a decisive contribution to the implementation of the economic and growth agenda.”

## What happens next?

The international agreement creating a unified patent court will enter into force on 1 January 2014 or after thirteen contracting states ratify it, provided that UK, France and Germany are among them.

The other two acts will apply from 1 January 2014, or from the date when the international agreement enters into force, whichever is the latest. The European Commission will report on how the new regime is working three years after it takes effect.



Source: [Irish EU Presidency Website: Explained - A Unitary Patent System for Europe](#)

Sources and more detailed information can be found on the [website of the European Parliament](#), the [website of the European Union](#) and the [homepage of the EU Single Market initiative](#).

## News & Developments

### EURAXESS

#### New EURAXESS Links China events to be organized this year

Starting from 2013, EURAXESS Links China will organize three main types of events each year: EURAXESS Share, EURAXESS Connect and EURAXESS Science Slam events.

**EURAXESS Share** events are meant as intelligence-sharing workshops to discuss and share best practices on issues of general interest to the research community, such as international mobility of researchers, how to work and develop one's research in China, intellectual property rights and other framework conditions for research cooperation etc.

**EURAXESS Connect** events aim to bring researchers active in the same research field or on the same research topic together, to exchange on their research work and to explore collaboration opportunities between Europe and China.

**EURAXESS Science Slam** intends to become a yearly event, showcasing talented researchers in a relaxed and entertaining way. Teams of researchers will compete to present their research in a limited time-frame and in the clearest and most entertaining way to the audience which will vote for the best performance. Winners' prizes, a relaxed atmosphere and hopefully nice weather should make for an exciting and joyful event.

We will inform you about these events in this newsletter's 'Events' section. **See below for the first EURAXESS Share workshop & dinner to be organized next 18 April in Beijing.** You are warmly invited to register!

For more information, contact the EURAXESS Links China Country Representative at [china@euraxess.net](mailto:china@euraxess.net).

### EU & Multilateral Cooperation

#### Innovation scoreboard shows EU more innovative, but gap between countries widening

Innovation performance in the EU has improved year on year in spite of the continuing economic crisis, but the innovation divide between Member States is widening. This is the result of the European Commission Innovation Union Scoreboard 2013, a ranking of EU Member States. While the most innovative countries have further improved their performance, others have shown a lack of progress. The overall ranking within the EU remains relatively stable, with Sweden at the top, followed by Germany, Denmark and Finland. Estonia, Lithuania and Latvia are the countries that have most improved since last year. Drivers of innovation growth in the EU include SMEs and the commercialisation of

innovations, together with excellent research systems. However the fall in business and venture capital investment over the years 2008-2012 has negatively influenced innovation performance.

A comparison with other European countries confirms Switzerland's position as the overall innovation leader that continually outperforms all EU countries. This year's results also again show that South Korea, the US, and Japan have a performance lead over the EU.

Read more about the [European Commission Innovation Union Scoreboard 2013](#) on the [Europa website](#).

### **Cooperation between the European Research Council (ERC) and the American National Science Foundation (NSF) gains momentum**

The recent initiative between the US National Science Foundation (NSF) and European Research Council (ERC) has been taken a step further since last summer, when the agreement was first signed at ESOF 2012 in Dublin by the NSF Director, Dr Subra Suresh, and the European Commissioner for Research, Innovation and Science, Máire Geoghegan-Quinn, in the presence of ERC President Prof. Helga Nowotny.

The agreement, which provides opportunities for early-career NSF researchers to join ERC-funded teams in Europe, seems to resonate with ERC grantees; just over 760 already showed great interest in hosting talent from the US.

"We are delighted with the extremely positive response from the European research community to this agreement," said NSF Director Subra Suresh. "The United States and Europe will benefit from having our best and brightest working together on international opportunities that have enormous potential for discovery and innovation, while establishing a strong foundation for future collaborations."

In November last year, the ERC launched an expression of interest to ERC grantees, of which some 760 answered positively to hosting NSF scientists. The majority of the interested ERC grantees hold Starting Grants (485). They are based in 23 different countries in Europe, and hold 42 different nationalities. Amongst them, there are 24 US nationals who currently have ERC grants.

The ERC has provided the final list of all participating grantees to the NSF and, in parallel, the NSF has launched a call for expression of interest addressed to all eligible post-doctoral fellows and CAREER awardees. In the course of this spring, a matching between ERC grantees and NSF researchers will take place.

Further details available in the [ERC Newsletter](#). The [ERC 2012 Report](#) has also recently been published on the [ERC website](#).

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

## **EU Member States\* and Bilateral Cooperation**

### **Denmark – Royal Danish Embassy signs important Memorandum of Understanding to support Sino-Danish Eco-Park**

The Royal Danish Embassy in China and Nanjing Municipality signed a government Memorandum of Understanding (MoU) in order to support a Sino-Danish Eco-Park in Nanjing. The 20th of March the Royal Danish Embassy in China and Nanjing Municipality signed a government Memorandum of Understanding (MoU) in order to support the establishment of a Sino-Danish Eco-Park in Nanjing.

Friis Arne Petersen, the Ambassador of Denmark to China, met with Yang Weize, party secretary of Nanjing municipality to discuss the importance of sustainable urbanization.

The vision of the MoU is to build the Nanjing pharmaceutical industry park into a truly green and energy efficient industrial park based on Denmark's experience in industrial park planning, construction and management as well as Danish eco criteria and solutions. It is also the hope that the project will become a replicable showcase in China.

Learn more in source: [Denmark in China](#).

### **France – Sino-French Centre (CFC, social sciences) at Tsinghua University has its own website**

The CFC was created in July 2011 following previous initiatives on the French side to establish scientific cooperation within Tsinghua in the field of social sciences.

The aim of the CFC is to develop exchanges and collaborations between French and Chinese social sciences researchers and PhD. Students as well as to strengthen the connections among French social scientists working in China.

With its brand new website which is not only meant to introduce the centre and its activities but also to serve as an online meeting point for the social scientists community, no doubt that the CFC will have new possibilities to reach out to the research community.

Check the website (only in French for the time being) at <http://beijing-cfc.org/>.

### **France – New partnership between Xian Jiaotong University incubator and SKEMA Business School in Suzhou**

Début mars 2013, the French SKEMA Business School has made a new step in its development in China with the signature of a MoU with Xian Jiaotong University's incubator, early March in Suzhou (Jiangsu province).

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\* Including countries associated with the 7th Framework Programme.

A result of a collaboration with Global Edutech Management, the signature of this MoU reflects the will of both sides to cooperate in the field of innovation ecosystems and foresee the creation of an entry point for innovative French start-ups and SMEs in China.

Source: [La France en Chine](#)

### **France – Field trip of French photovoltaic experts to China**

The scientific service of the French Embassy to China organised a field mission on China's R&D in the field of photovoltaics from 11 to 15 March.

China is investing massively in new energies and the proportion of renewable energies is expected to reach 15% of the total energy mix by 2020, more than doubling the 7% of 2011. China's PV industry produces between 60 and 70% of the solar panels sold in the world and has a very active R&D in this field. Many private and public Chinese institutions are working on improving conversion efficiency, production chains optimisation, new cell technologies as well as better integration of network systems.

The field mission was conducted by Philippe Malbranche, research programmes director at the Solar Energy National Institute (INES-CEA) and visited Guangzhou, Shanghai and Beijing in order to meet the main Chinese stake-holders, both private and public, of this sector.

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

### **Germany – Launch of the Chinese-German Center for Bio-Inspired Materials at the Mainz University Medical Center**

A German research team led by Professor Dr. Werner E. G. Müller of the Institute of Physiological Chemistry at the University Medical Center of Johannes Gutenberg University Mainz (JGU) and scientists from the Chinese Academy of Sciences and the Chinese Academy of Geological Sciences have launched a Chinese-German Joint Center for Bio-Inspired Materials.

Here, the researchers will be able to work closely together on projects in the field of regenerative medicine, an area with a promising future. The aim is to use the strategy of marine animals to develop novel bio-inspired bone replacement materials and medications to ameliorate osteoporosis.

In addition to the German Federal Ministry of Education and Research (BMBF) which initiated this lighthouse project, the European Union (EU) and the University Medical Center Mainz will support the Joint Center by funding the innovative projects on the development of customized bone implants applying advanced 3D printing techniques.

The Joint Center has been established for a period of ten years. It is based both at the Institute of Physiological Chemistry of the Mainz University Medical Center and at the Chinese Academy of Geological Sciences together with Tsinghua University in Beijing, the Shanghai Institute of Materia Medica of the Chinese Academy of Sciences in Shanghai as well as other distinguished institutions in China.

Coinciding with the launch of the Joint Center, the EU is providing financial support to a further project initiated by Müller and his Chinese colleagues that aims to develop customized rapid prototyping of bioactive scaffolds using applying three-dimensional printing. The scientists from both sides participating in this project are funded by the European Union by a grant of nearly EUR 2 million.

Further details in source: [CAS](#)

### **Germany – BASF to establish innovation center in Shanghai**

Global chemical company BASF plans to establish a global innovation center for leather and textile chemicals in Shanghai. "It is part of the company's strategy to re-shape its global leather and textile chemicals business, which focuses on the growing Asia-Pacific region," said Francois Desne, senior vice-president of BASF's global business unit for leather and textile chemicals. The center, which will be located within the BASF Innovation Campus in Shanghai, will be part of its global R&D unit, which serves as a platform of excellence for integrated R&D resources and applications to produce the best solutions for the market, Desne said.

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

### **Germany – 9th Asia-Pacific Weeks Berlin in 2013 on Smart Cities, 5-14 June, 2013**

Since 1997, the Asia-Pacific Weeks Berlin have been providing a forum for major topics in business and politics, science and research, and also culture and society.

The APW 2013 are focusing on Smart Cities and addressing the challenges facing Berlin and the growing metropolises of Asia. The goal is to achieve sustainable economic and social urban development that offers solutions for population growth and environmental pressures. Innovative concepts are needed not only for digital infrastructure, mobility, energy and water supply, but also for education, creative freedom and political participation.

Read more in source: [Deutsche Botschaft in Peking](#) and [APW 2013](#)

### **UK – Projects jointly funded by NSFC and the Royal Society selected**

The NSFC and the Royal Society (UK) have received 150 Sino-British research projects proposals and [have selected 30 out of them](#) for funding over a two years period, from 1<sup>st</sup> April 2013 until 31 March 2015.

### **UK – UK's practice of family law shared with China**

Lord Justice Sir Mathew Thorpe, Head of International Family Justice for England and Wales and Anne-Marie Hutchinson, Chair of Reunite, visited Beijing last week to meet a range of family law stakeholders.

During the visit Lord Justice Thorpe and Anne-Marie Hutchinson were able to offer their Chinese counterparts some thoughts and ideas on the practice of family law in the UK which will enable them to develop China's own family law. Visits to the Supreme People's Court and Ministry of Foreign Affairs showed how seriously the Chinese authorities consider the importance of China's playing a greater part in the Hague Conventions on international aspects of family law.

Learn more in source: [GOV.UK](#)

### **UK – New UK immigration rules aimed at attracting "best global talent"**

Changes will provide additional flexibility for businesses, and enable top international students to pursue their careers in the UK.

The government is extending the offer already available for highly skilled migrants to encourage the brightest and best global talent to come to the UK to study, work, invest and set up business.

Gifted international students who wish to begin their career in the UK will also benefit from a number of changes.

From April the UK Border Agency will expand the Graduate Entrepreneur scheme to allow up to 1,000 international MBA graduates from British universities to stay in the UK for a year after graduating.

Learn more in source: [GOV.UK](#)

### **UK – Sustainable Cities Mission showcases UK's expertise in sustainable development**

A delegation of 10 UK companies was welcomed this week on the opening leg of the 2013 Sustainable Cities Mission to Chongqing and Changsha.

The mission programme put together by the UK Trade and Investment team gave the ten companies a platform to showcase their range of specialist products and expertise in low carbon, sustainable construction and water sectors to an invited audience of local government and industry.

In the coming month, the British Consulate-General Chongqing will lead well-known British companies in architecture to participate in the 6th City Expo in Chongqing. A zero-carbon pavilion will be built for the Expo by British architects ALL Design. In June, members of the Royal Institute of British Architecture (RIBA) will visit Chongqing.

Learn more in source: [GOV.UK](#)

## Grants & Fellowships

### Life Sciences & Medicine

*Biology - Genetics - Medicine*

#### Finland – Academy of Finland-NSFC joint call on brain plasticity and learning

The Academy of Finland and the National Natural Science Foundation of China (NSFC) have decided to launch a call for up to five joint projects with the objective to promote Finnish-Chinese research collaboration in the field of the human mind.

The themes of the call are brain plasticity and learning.

The aim is to support long-term and systematic research collaboration and to promote and strengthen research networks between Finland and China. Applications must involve research teams from both countries.

The projects will be funded in Finland by the Academy and in China by the NSFC. Both agencies will fund only research that is carried out in their own country. The Academy's funding is a maximum of EUR 350,000 per project. The funding is granted for a maximum of three years, starting 1 January 2014.

All subprojects of a bilateral project shall submit a joint application to their national funding agency in line with its guidelines. To ensure successful collaboration, applicants should draft a sufficient budget for researchers' travels between Finland and China. Since the joint projects are funded on a bilateral basis, researcher mobility between the participating countries should be balanced.

The deadline for application is **24 April 2013**. Further details can be found in this [AF call document](#) and on the [NSFC website](#).

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

#### UK – Synthetic Biology China Partnering Award

Deadline for application: **30 April, 2013**.

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

Chinese applicants should refer to the [CAS website](#) for full details and instructions.

## Physical Sciences & Engineering

*Physics - Chemistry - Materials - Earth science - Engineering*

### Finland – China-Finland Joint Call 2013 in Nanotechnology

China and Finland are jointly announcing a call for proposals for joint nanotechnology R&D&I projects for enterprises and research organizations in China and in Finland. The call is addressing nanotechnology based innovation, commercialization and other business related topics.

Special aim of this Call is to promote synergy between Chinese and Finnish research partners and enhance industry integration with increased mobility and experts' presence. In 2013, the research subject will mainly focus on nanotechnology application in agrofood and health. 3 – 5 projects will be founded by the programme. The budget for each project from the Chinese side will not exceed 2 million RMB, while that from the Finnish side will not exceed 250 thousand Euros.

All projects should be finished or achieve phased objectives within two years. Deadline is **30 April 2013**.

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

### Sweden – International Cooperation with Actors in China for Eco-Innovations 2013

VINNOVA and the Swedish Energy Agency are now launching a call for cooperation with actors in China under the International Cooperation for Eco-Innovations programme. The aim of the new call is to develop strategic research and innovation partnerships between Swedish actors and those in China which will ultimately strengthen the competitiveness of Swedish actors.

The total budget for this call is SEK 40 million. The selection and funding of projects take place via coordinated calls in Sweden and China. VINNOVA is responsible for the Swedish application process and the Ministry of Science and Technology (MOST) for the Chinese.

The priority areas of the new call are:

- 1) Environmental technology, which includes products (goods and services) that reduce the use of natural resources and that reduce emissions of harmful substances throughout their life cycle;
- 2) Sustainable urban development, which includes the introduction of new or significantly improved products (goods or services), processes, organisational changes or marketing solutions.

Deadline for submitting proposals is on **2 May 2013**. Further details are available on the [Vinnova website](#). Chinese potential applicants might visit the [MoST website](#).

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

### **Denmark – Sino-Danish strategic research cooperation in sustainable and renewable energy**

Deadline is **30 April 2013**.

More details available for Danish applicants on the [Danish Ministry of Science, Innovation and Higher Education website](#). Chinese applicants might visit [this webpage](#) for additional information.

## **Mathematics & Formal Sciences**

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

### **EU – ERCIM "Alain Bensoussan" Fellowship Programme**

Next Application deadline is **30 April 2013**.

Application is done online on the [programme's website](#).

## **Social Sciences and the Humanities**

### **France – FP7 Marie-Curie IOF Call: Research Mobility based in the CEFC**

The French Centre for Research on contemporary China (CEFC) invites applications from researchers from EU member states or associated countries for a one- or two-year research mobility project under the current Call for Projects - International Outgoing Fellowships funded by the European Framework Programme 7.

The CEFC, based in Hong Kong, is a multidisciplinary social science research centre dedicated to the study of contemporary China.

The CEFC offers to host researchers working on contemporary China in the area of social sciences and who want to submit a proposal within the frame of this call.

Interested researchers are invited to submit a CV and a 1 or 2-page outline of their research project, which specifies a working title and the "return host organization" (this is the organization which will ultimately submit the application), **no later than 15 May 2013**, by email only to: [aaroquiame@cefc.com.hk](mailto:aaroquiame@cefc.com.hk).

Applications which do not meet the eligibility criteria set out in the call (see link below), or which do not specify a return host institution, will not be considered. Please carefully read the relevant sections below.

Internal selection criteria:

- Excellence of the applicant and the research project
- Strength of the applicant's cooperation with the CEFC and/or other institutions in Hong Kong and in China
- Relevance to the research programs currently hosted in the CEFC
- Applicants will be informed of the internal selection results by 15 June 2013.

For more information, visit the page of the call for projects on the [European Commission Website](#).

### France – CEFC short-term mobility grant for doctoral research on contemporary China

The French Centre for Research on Contemporary China (CEFC) is offering three fieldwork grants for doctoral students, ranging from one to three months, to be carried out between June 2013 and December 2013 in China, Hong Kong or Taiwan. The grant comprises a monthly stipend of 1200 € as well as a round-trip air ticket between Europe and China, Hong Kong or Taiwan, within the limit of 1000 €.

Applicants shall satisfy the following eligibility criteria:

- Be enrolled in a doctoral program in a French or European university (located in a member-state of the European Union or of the European Higher Education Area), in the field of humanities and social sciences.
- Their research project must be situated within the scope of the CEFC's mandate, which is to study political, economic, social and cultural developments in Greater China.

Applications can be submitted in French or English and must contain the following:

- A detailed resume
- A research project explaining the fieldwork to be undertaken under the grant and explaining how it will contribute to the applicant's doctoral project
- A recommendation letter from the PhD supervisor

Complete applications must be submitted in a single PDF file (max: 10 pages, 1.5 line spacing), addressed to the Director of the CEFC, by email to Alfred Aroquiame ([aaroquiame@cefc.com.hk](mailto:aaroquiame@cefc.com.hk)) with the subject line "Fieldwork Grant 2013" on or before **10 May 2013**.

The recommendation letter should be sent directly by the PhD supervisor by email to Alfred Aroquiame ([aaroquiame@cefc.com.hk](mailto:aaroquiame@cefc.com.hk)) or by ordinary mail (in this case it must reach the CEFC by 15 May 2013), to:

Sebastian Veg, CEFC, 20/F Wanchai Central Bldg., 89 Lockhart Road, Wanchai, HK.

Selected applicants will be informed in early June 2013.

Contact information for further details about this call and application procedure: Tel. (852) 2876 6914 or 6910 - email [aaroquiame@cefc.com.hk](mailto:aaroquiame@cefc.com.hk)

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

#### **France – EFEO Field Scholarships**

The application deadlines in 2013 are **31 March 2013**, for scholarships tenable between 1 January and 30 June 2014, and **30 September 2013**, for scholarships tenable between 1 July and 31 December 2014.

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

#### **EU – The Joint Programming Initiative on Cultural Heritage and the Joint Heritage European Programme (JPI-JHEP) First Transnational Pilot Call for Proposals**

Deadline for submission will be **5 April 2013**. Further details can be found on the [JPI-JHEP website](#).

#### **Spain – 2013 International Scholarships for Master and PhD Programme at Charles III University of Madrid**

The application deadline is **22 April 2013**.

Read more details about this [master and doctoral programme](#) as well as on the [scholarships](#) on the Charles III University website.

#### **Germany – Humboldt Foundation Anneliese Maier Research Award**

The nomination deadline expires on **30 April 2013**.

Further details on the [Humboldt Foundation website](#).

#### **Italy – International Doctoral Program in Economics at Sant’ Anna School of Advanced Studies, 2013/14**

Online application closes on **7 May 2013**. Further details about this programme can be found online on [Sant’ Anna School of Advanced Studies’ website](#).

### **Multi- & Trans-Disciplinary Calls**

#### **EU – Marie Curie Fellowships final calls opened**

The European Commission is inviting bids for the final tranche of Marie Curie fellowship grants allotted under the current seventh Framework Programme for Research (FP7, 2007-13). Some €227 million, the highest single amount made available through the Marie Curie Actions fund, will be awarded to around 1 000 experienced researchers this year, **in all fields**.

International Outgoing Fellowships (IOF) offering researchers the chance to acquire new knowledge in a high-level organisation outside Europe, International Incoming Fellowships

(IIF) enabling researchers from outside Europe to be trained within a European institution, and Intra-European Fellowships (IEF) supporting researchers acquiring knowledge and new skills in another country within Europe, opened on 14 March 2013.

The application process for these three schemes runs until **14 August 2013**.

To apply please visit <http://ec.europa.eu/research/participants/portal/page/funding>. (for the links to each one of these calls see the 'Open calls under FP7 and Euratom' section below).

Individual fellowships will continue to be provided under the new Marie Skłodowska-Curie Actions as part of the Horizon 2020 programme, which starts in 2014.

### **EU – Call for proposals for 'Supporting public procurement of innovative solutions'**

The European Commission has published a call for proposals for 'Supporting public procurement of innovative solutions,' which comes under the Entrepreneurship and Innovation Programme (EIP).

The support to innovative companies is a centrepiece of the European Commission's growth strategy Europe 2020. Since November 2011, the Commission has proposed to provide support to innovative procurement through Horizon 2020, recommended the introduction of a new procurement procedure and launched the 'Public Procurement of Innovation Platform', a European-wide networking platform of link-minded public procurers.

This call provides a bridge between the 11 ongoing PPI pilot projects and the launch of innovation procurement under Horizon 2020. The European Commission calls for project proposals that clearly demonstrate how public procurement bodies will act, during the project, as launch customers for innovative goods or services which are not yet available on a large-scale commercial basis.

Deadline is **28 May 2013**.

See the [official call announcement](#) for further details.

### **Germany – DAAD-K.C.Wong Fellowships**

These fellowships are for highly qualified Chinese scholars in the fields of **life sciences, mathematics, engineering, agriculture and medicine**, to enable them to go to Germany and cooperate with colleagues in German higher education and research institutions. Funding is provided for stays in Germany of between 3 and 12 months duration.

Applications should be handed to the DAAD office in Beijing or headquarters in Bonn. Deadline for application is **30 April 2013** (for stays between October 2013 and March 2014).

Further details about this programme are available on the [DAAD website](#).

### **Germany – CAS-DAAD Scholarships Programme**

This programme is open to Chinese PhD. Students belonging to institutes of the Chinese Academy of Sciences (CAS) or to the University of Science & Technology of China (USTC)

and give them the opportunity to carry out research for between one to two years in Germany. However, research stays at Max-Planck and Fraunhofer institutes cannot be funded. The PhD. is to be completed in China after the stay in Germany.

The scholarship includes a 1000 Euro monthly allowance provided during the first year by CAS, during the second year by DAAD, together with an additional travel allowance and health security in Germany.

Applications are submitted through CAS and the deadlines may vary from one CAS institute to the other. The general deadline though is **12 April 2013** and the selection will be done in June/July.

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

### Italy – 2013 PhD Scholarships for International Students at Institutions Markets Technologies Institute

36 scholarships are offered of 13,638.47€ /year. They are provided for courses offered by IMT Institute in Italy, covering the fields of **economics, political history, management and development of cultural heritage, and computer, decision and systems science**.

Applications are open to candidates without regard to nationality, age, gender or religion. Proficiency in English is compulsory as research and teaching are conducted in English.

Applicants are evaluated by the selection committee of the program in which they intend to register on the basis of their prior performance and professional promise. Applicants must have completed and obtained a degree equivalent to at least 4 years of university studies. Students in their final year of undergraduate study may be admitted on the condition that their bachelor's degree is awarded before they enroll at IMT.

Deadline for application is **17 July 2013**. Further details can be found on the [IMT website](#).

### Switzerland – SNSF International Exploratory Workshops

The International Exploratory Workshops of the Swiss National Science Foundation (SNSF) enable researchers working in Switzerland to organise workshops with partners from abroad. The workshops can last between two and five days. Up to 30 participants from different institutions can participate. However, the SNSF will fund a maximum of ten researchers. The seminar is to take place in Switzerland, but exceptions can be granted if justified.

The aim of this funding instrument, which is **open to all fields of research**, is to allow researchers working on a similar question to meet and advance their knowledge on the issue.

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 **5 June 2013**.

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

### Turkey – Research Fellowships For Foreign Citizens (code 2216)

Travel and research grants in the fields of **Natural Sciences, Engineering and Technological Sciences, Medical Sciences, Agricultural Sciences, Social Sciences and Humanities** will be awarded to highly qualified PhD students and young post-doctoral researchers to perform part of their research in Turkey.

Applicants should have an acceptance from the universities or research institutes in Turkey. They must be 35 years old or younger. The maximum duration for the fellowship is 12 months. A monthly stipend of 2.250 Turkish Liras is provided under this fellowship.

Deadline for application under this Spring call (next call in Autumn) is **12 April 2013**.

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

### UK – Royal Society International Exchanges Scheme

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. This scheme **is open to researchers in the fields of life and physical sciences, including engineering, but excluding clinical medicine, as well as mathematics, archaeology (its scientific aspects only) and experimental psychology**.

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) and be based in the respective countries at the time of the application.

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

The funding available is dependent upon the length of the visit. Applicants may request:

- up to of £3,000 for one-off travel lasting up to 3 months
- up to £6000 for multiple visits to be completed within 1 year (including a maximum of £1000 for research expenses)
- up to £12,000 for multiple visits to be completed within 2 years and cost share projects fixed at 2 years (including a maximum of £2000 for research expenses).

The closing date of the current round of application (R2/2013) is **26 June 2013**.

Find out more about this scheme and the current call on the [Royal Society website](#).

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

### **China – Chinese Government Scholarship 2013**

Applicants shall apply to Chinese diplomatic missions or dispatching authorities. Applicants may refer to the above authorities for deadlines for application (usually around **end of March, beginning of April 2013**).

Further details about the different scholarships available under this programme available on the [China Scholarship Council website](#).

### **France – CNRS Launches Scientific Cooperation International Projects Calls for Proposals with NSFC**

Pre-proposals (featuring brief summary of the research project and list of co-publications with the designated partner) have to be submitted before **2 April 2013**, full proposals before 4 June, 2013. The selected projects will be announced next December.

More details can be found on the [CNRS website](#) and on the [NSFC's](#).

### **Netherlands – Rubicon Fellowship Programme**

There are three submission rounds annually for Rubicon. The first closing date for submitting applications is **3 April 2013**.

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

### **France – Cai Yuan Pei 2013 - Deadline extended!**

Deadline for application to the 2013 edition of this programme is now **7 April 2013**.

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

### **Sweden – STINT Initiation Grants**

Next applications' assessment round starts on **9 April**. Three more will take place in 2013 starting respectively on June 11, September 10 and November 26.

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

### **UK – Newton International Fellowships**

Closing date for this programme is **10 April 2013**. However, applicants are advised to submit their application for approval to the UK host organisation approver at least 5 working days before the round deadline i.e. by 3 April 2013.

Further details available on the [programme's website](#).

### **EU – Erasmus Mundus 2013 Call (for institutions)**

Deadline for submission of applications under both Action 2 and Action 3: **15 April 2013**.

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

For **scholarships and individual funding opportunities** under Erasmus Mundus, visit [this webpage](#).

### China – NSFC-RFBR 2013 joint call

Deadline for application is **15 April 2013**.

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

### Sweden – Formas Mobility Starting Grant for Young Researchers

Deadline for application is **16 April, 2013**.

Besides this mobility scheme, Formas is also calling for research and development projects under two other funding schemes (same deadline).

Further details about this call available on the [Formas website](#).

### Denmark – Danish Council for Independent Research (DFF) - Individual postdoctoral grants

The deadlines are different for each of the 5 research councils:

The Danish Council for Independent Research | Humanities (FKK): **1 May 2013**

The Danish Council for Independent Research | Natural Sciences (FNU): **6 May 2013**

The Danish Council for Independent Research | Social Sciences (FSE): **29 April 2013**

The Danish Council for Independent Research | Medical Sciences (FSS): **24 April 2013**

The Danish Council for Independent Research | Technology and Production Sciences (FTP):  
**3 May 2013**

Find out more about this call on the [Danish Agency for Science Technology and Innovation website](#).

### China – China-EU Science and Technology Cooperation Special Program 2013

Closing date: **30 April 2013**

More details about this call can be found in Chinese on the [MoST website](#). English translation of the call's notice can be found [here](#).

### Belgium – Pegasus Marie Curie Fellowships (Short)

Next deadline for application is **1 May 2013**.

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

### Switzerland – SNSF Professorships 2013

Deadline for application is **2 May 2013**. More details on the [SNSF website](#).

### UK – Leverhulme Trust Fellowships Visiting Professorships

Next deadline to submit applications is **9 May 2013**.

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

### Belgium – Odysseus Programme

Application deadline is **1 June 2013**.

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

## France – Sino-French Foundation for Science and its Applications Post-Doctoral Fellowships 2013

The deadline to submit application is **1 June 2013**.

Find out all details about this call, the eligible topics and the application process, on the [French embassy website](#).

## Open calls under FP7 and Euratom

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

Call for proposals	Launched	Deadline
<a href="#">Marie Curie Intra-European Fellowship for Career Development (IEF)</a>	14 March 2013	14 August 2013
<a href="#">Marie-Curie International Incoming Fellowship (IIF)</a>	14 March 2013	14 August 2013
<a href="#">Marie Curie International Outgoing Fellowship for Career Development (IOF)</a>	14 March 2013	14 August 2013
<a href="#">Marie Curie Career Integration Grants (CIG)</a>	18 October 2012	18 September 2013

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

Call	Launched	Deadline
<a href="#">Calls for proposals for ERC Proof of Concept Grant</a>	10 January, 2013	3 October, 2013

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

- [Information and Communication Technologies](#) / 2 open calls
- [Environment \(including Climate Change\)](#) / 1 open call
- [Transport \(including Aeronautics\)](#) / 1 open call
- [Joint Technology Initiatives \(Annex IV-SP1\)](#) / 4 open calls

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

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

## Jobs

### Italy – Fellow position at the law department of Bologna University: Improving Environmental Governance in China through EU-China Cooperation

China's commitment in the pursuit of sustainable development has enriched the legislative and institutional framework related to the environment protection; however the effectiveness of this legal framework is still problematic and the Chinese government, under the influence of international cooperation programs, has strengthened the environmental governance system.

The research, by studying the rules adopted by Chinese courts in environmental disputes, aims at analyzing the Sino-European cooperation programs and their influence on the dynamics of circulation of legal models. The research includes: the reconstruction of the Sino-European cooperation programs relating to the environment and their specific actions; the analysis of the impact of these actions, examining the Chinese case law, in the original linguistic version; the presentation of the results, also through essays such as articles and working papers and the participation in seminars and workshops to be held in China.

Early stage researchers and post-graduates from all nationalities can apply until **5 April 2013**.

Read the full announcement on the [EURAXESS Jobs](#) portal.

### Netherlands – Ph.D. researcher position at Utrecht University: Urban Travel Demand Measures (joint project with Beijing Jiaotong University)

The successful candidate will integrate Utrecht University's joint project with Beijing Jiaotong University, funded by the NWO-NSFC program 'Operations Research in Urban Transport'. In this project the potential effects of an innovative demand management tool, Tradable Driving Rights (TDR), in the Netherlands and China are investigated. In a TDR scheme, car drivers are given a limited amount of rights for driving in congested areas/times for a given period, which they may freely use.

The PhD project in Utrecht addresses behavioral aspects of TDR, such as the allocation of driving rights over a longer period and the daily decision about travel mode, route and timing in relation to the existing driving rights budget. These aspects will be investigated using stated preference and stated adaptation techniques. The project will provide input for the project by the Chinese partner, which addresses the system level effects of TDR.

The project entails theoretical research, data collection and analysis, writing papers for presentation in international conferences and publication in peer reviewed journals, resulting in a PhD thesis. In annual workshops, the different sub-projects are integrated. These are held either in Beijing or in Utrecht.

For this project Utrecht University is looking for an ambitious researcher with the following qualifications:

- A background in geography, transportation studies, civil engineering, economics or traffic psychology
- Fluency in English (writing and speaking)
- Sufficient statistical background
- Good communication and presentation skills
- A team player keen on collaborating with supervisors and colleagues

Deadline for application is **10 April 2013**.

Read the full announcement on the [EURAXESS Jobs](#) portal.

### **UK – 2 lecturer positions at Queen Mary University of London in Biomedical Sciences (joint programme with Nanchang University)**

Queen Mary University of London (QMUL) is seeking to appoint staff to join their School of Biological and Chemical Sciences and to contribute to the teaching on an exciting new initiative, a joint programme in Biomedical Sciences with Nanchang University (NCU), China.

The proposed partnership with NCU is a genuinely equal partnership as students will graduate with a degree from Nanchang and a degree from the University of London and teaching will be split equally between the universities. Teaching will be in English, and the programme will draw on the academic expertise of both institutions, with staff from QMUL providing a research led overview of current developments in biomedical sciences. All of the programme will be delivered at Nanchang University, with London-based QMUL staff being flown out to Nanchang to deliver their teaching.

As the first of a number of staff appointments, QMUL is seeking to appoint two staff to lead the teaching of this programme. The two posts will cover between them the areas of:

- Molecular Genetics
- Anatomy and Cell Biology

Applicants must have a PhD. The posts are permanent and full time starting from May 2013 or as soon as possible thereafter. The starting salary for both posts will be in on the Lecturer scale in the range of £38,197-£47,559 per annum inclusive of London Allowance. Benefits include 30 days annual leave, defined benefit pension scheme and interest-free season ticket loan.

The closing date for applications is **Monday, 15 April 2013**.

Read the full announcement on the [EURAXESS Jobs](#) portal.

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

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

- 3 doctoral position (deadline: 1 April and 14 April)
- 53 postdoctoral positions (various deadlines from 31 March to 15 May)
- 9 senior researcher positions (various deadlines from 2 to 29 April)

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

## Events

### EURAXESS Links China Events

#### 1st EURAXESS Links China Event in 2013: EURAXESS Share, 18 April, French Embassy in Beijing – Detailed programme available

The role of researchers moving and working outside of their home country is often stressed as one of key importance for the progress of scientific cooperation and, from an even broader perspective, for the development of relations between different regions and civilizations of the world.

For its first event in 2013, **EURAXESS Links China** invites researchers, administrators and policy-makers (in all fields) to take part in an afternoon-conference and dinner, to discuss the impact of the various forms of researchers' mobility on the development of the Sino-European research cooperation and overall relationship.

The idea is to reflect on the assumptions that mobility and exchanges of researchers are crucial to bring the scientific cooperation as well as the overall relationship between Europe and China forward, discuss to which extent they might be true or not, and based on the participants' own experiences and best practices, what needs to be done to make them come true.

This first EURAXESS Share event will be hosted at the French Embassy in Beijing on Thursday, 18 April afternoon and evening.

The conference will start with an introductory lecture by **Professor Philippe Meynard SJ**, director of The Beijing Center and professor of philosophy at Sun Yat Sen university, who will share his erudition on the historical beginnings of knowledge exchanges between China and Europe.

Participants will then be divided in three parallel roundtables according to their general area of activity (social sciences researchers, hard sciences researchers, diplomatic and policy-making actors) to share their experiences, best practices and ideas on the topic of the conference. A questionnaire will be given to steer the discussion among all participants within each roundtable. The conclusions of each roundtable will then be shared, compared and discussed among all participants during a plenary closing session.

Last but not least, **all participants will be warmly invited to join the networking 'Easter Dinner'** after the closing of the seminar at the residence of the French ambassador.

The [full programme and discussion guidelines can now be downloaded](#) from the EURAXESS Links China website.

We still have about 40 seats available for this event and encourage those interested to register at their earliest convenience by writing to [china@euraxess.net](mailto:china@euraxess.net).

## EURAXESS Links China's recommended events

### Understanding Science: "Chemistry for a Sustainable Society" - 11 April - Beijing

In next month's "Understanding Science" talk, Professor Dermot O'Hare (University of Oxford) will show how chemistry holds the key to making a sustainable society a reality rather than merely a vision. The talk will take place at 7.30 p.m. on Thursday 11th April in "Face Bar" which is just to the south of the Workers' Stadium and conveniently close to the Dongdaqiao metro station (Line 6). Please see the [flyer](#) and the [map](#) for further details.

This is a joint meeting with the Oxford and Cambridge Club Beijing. If you are planning to attend the talk, please reply to this email to register your interest so that we can give "Face Bar" an idea of the numbers of chairs to set out.

"Understanding Science" is organized by the UK Royal Society of Chemistry (RSC) and the Institute of Physics (IoP) and the team welcomes you to join this and future events. Please feel free to forward this information to any friends you think may be interested.

## Upcoming scientific events in China

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

Field	Date	Location	Title ( <i>click for more details</i> )
Material sciences	15-19 April, 2013	Shanghai	<a href="#">12<sup>th</sup> International Conference on Inorganic Scintillators and their applications, SCINT 2013</a>
Cell Biology	15-19 April, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Mechanisms and Functions of Non-Apoptotic Cell Death</a>
ICT	17-19 April, 2013	Shanghai	<a href="#">2013 International Conference on Green Computing, Networking, and Communications (ICGCNC 2013)</a>
Biomedicine	19-21 April, 2013	Beijing	<a href="#">2013 International Conference on Biomedicine and Pharmacology</a>
Material & Electronic Engineering	20 April, 2013	Hong Kong	<a href="#">The 2013 2nd International Conference on Applied Materials and Electronics Engineering (AMEE 2013)</a>
ICT & Computer Science	21-22 April, 2013	Beijing	<a href="#">2013 5th International Conference on Digital Image Processing - ICDIP 2013</a>
Bioinformatics and Computational Biology	21-22 April, 2013	Beijing	<a href="#">2013 2nd International Conference on Bioinformatics and Computational Biology (ICBCB 2013)</a>
Chemistry	21-24 April, 2013	Xiamen	<a href="#">3rd International Colloids Conference - Colloids &amp; Energy</a>

Remote sensing	22-26 April, 2013	Beijing	<a href="#">35<sup>th</sup> International Symposium on Remote Sensing of Environment, ISRSE35</a>
Neuroscience	6-10 May, 2013	Suzhou	<a href="#">Francis Crick Symposium on Neuroscience</a>
Engineering	13-16 May, 2013	Shanghai	<a href="#">27<sup>th</sup> CIMAC Congress on Combustion Engine Technology</a>
Genetics	13-17 May, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Membrane Protein Structure and Function</a>
Molecular Biology	16-19 May, 2013	Xian	<a href="#">EMBO Workshop: 'Membrane Shaping and Remodelling by Proteins'</a>
Space	20-23 May, 2013	Shanghai	<a href="#">The 5<sup>th</sup> CSA-IAA Conference on Advanced Space Technology</a>
Biotechnology	20-23 May, 2013	Shanghai	<a href="#">8th International China Pharmaceutical R&amp;D Summit</a>
Biotechnology	20-23 May, 2013	Shanghai	<a href="#">Biosimilars Asia 2013</a>
Metabolism	20-24 May, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Metabolism, Obesity and Obesity-Associated Diseases</a>
Education	21-22 May, 2013	Beijing	<a href="#">2nd International Conference and Exhibition on Occupational Health &amp; Safety</a>
Law, IPR, Pharmacology	21-23 May, 2013	Shanghai	<a href="#">2nd Pharma Legal Affairs Asia 2013</a>
Nephrology	31 May-June 4, 2013	Hong Kong	<a href="#">ISN World Congress of Nephrology</a>
Medicine	3-7 June, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Vaccine Design</a>
Environment	4-7 June, 2013	Dalian	<a href="#">2013 Int'l Symposium on Environmental Science and Technology</a>
Software Engineering	14-16 June, 2013	Beijing	<a href="#">International Symposium on Computer Science and Electrical Engineering</a>
Mechanics	16-21 June, 2013	Beijing	<a href="#">13<sup>th</sup> Int'l Conference on Fracture - ICF-13</a>
Bioinformatics	17-20 June, 2013	Shenzhen	<a href="#">BGI Bioinformatics Workshop</a>
Plant Biology	17-21 June, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Plant Cell and Developmental Biology</a>
Genetics	24-28 June, 2013	Suzhou	<a href="#">Yersinia 11 - the 11th international symposium on Yersinia</a>
Education	6-7 July, 2013	Hong Kong	<a href="#">2013 2nd International Conference on Knowledge and Education Technology - ICKET 2013</a>

ICT	6-7 July, 2013	Hong Kong	<a href="#">2013 4th International Conference on Signal and Information Processing (ICSIP 2013)</a>
Applied science, Engineering	12-14 July, 2013	Shanghai	<a href="#">Shanghai International Conference on Applied Science and Engineering</a>
Nuclear engineering	29 July-2 August, 2013	Chengdu	<a href="#">The 21<sup>st</sup> Int'l Conference on Nuclear Engineering</a>
Modernization science	8-10 August, 2013	Beijing	<a href="#">1<sup>st</sup> int'l modernization forum</a>
Astronomy	16-18 August, 2013	Lijiang	<a href="#">Collaboration Meeting on Antarctic Survey Telescopes</a>
Health	19-24 August, 2013	Beijing	<a href="#">Asian Mycological Congresses 2013</a>
Biotechnology	20-21 August, 2013	Shanghai	<a href="#">5th Annual BioProcess International™ China</a>
Atomic and Molecular Physics	20-23 August, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on New Advances in Optical Imaging of Live Cells and Organisms</a>
ICT	20-23 August, 2013	Beijing	<a href="#">2013 IEEE International Conference on iThings/CPSCoM/GreenCoM (2013 World Cybermatics Congress)</a>
ICT	20-23 August, 2013	Beijing	<a href="#">2nd International Workshop on energy and Wireless Sensors (e-WiSe)</a>
Biology, Food safety	25-30 August, 2013	Beijing	<a href="#">10<sup>th</sup> Int'l Congress on Plant Pathology - ICCPP</a>
Engineering	29-31 August, 2013	Macao	<a href="#">2013 International Symposium on Engineering and Natural Sciences</a>
Innovation	1-2 September, 2013	Beijing	<a href="#">2013 4th International Conference on Innovation, Management and Service- ICIMS 2013</a>
Management	1-2 September, 2013	Beijing	<a href="#">2013 2nd International Conference on Management Technology and Science-ICMTS2013</a>
Construction & Project Management	1-2 September, 2013	Beijing	<a href="#">2013 4th International Conference on Construction and Project Management - ICCPM 2013</a>
Cancer Research	2-6 September, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Cell Signaling in Metabolism, Inflammation and Cancer</a>
<i>EU-China cooperation</i> Medicine	6-7 September, 2013	Shanghai	<a href="#">1st Euro-Asian Experts Conference on Immune Biomarkers for Personalized Medicine in Oncology</a>
Chemistry	8-13 September, 2013	Shanghai	<a href="#">The 24<sup>th</sup> International Society of Heterocyclic Chemistry Congress</a>

Infectious Diseases	9-13 September, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Molecular Basis of Aging and Disease</a>
Pharmacology	20-22 September, 2013	Suzhou	<a href="#">2013 Chinese Congress and Exposition on Gerontology and Health Industry</a>
Bioinformatics	20-22 September, 2013	Taicang	<a href="#">InCoB2013 - 12th International Conference on Bioinformatics</a>
Chemistry	22-25 September, 2013	Dalian	<a href="#">2nd International Congress on Catalysis for Biorefineries (CatBior 2013)</a>
Space	23-27 September, 2013	Beijing	<a href="#">64<sup>th</sup> International Astronautical Congress</a>
Biotechnology	23-27 September, 2013	Beijing	<a href="#">The 13<sup>th</sup> International Conference on Culture Collections - ICC-13</a>
Computational Biology	23-27 September, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Frontiers in Bioinformatics and Computational Biology</a>
Chemistry	24-27 September, 2013	Chengdu	<a href="#">2013 Int' l Autumn Seminar on Propellants · Explosives and Pyrotechnics</a>
Energy	25-28 September, 2013	Shanghai	<a href="#">5<sup>th</sup> World Hydrogen Technologies Convention · WHTC2013</a>
Genetics	7-11 October, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Genetic, Genomic, and Translational Studies of Human Leukemia</a>
Biology	14-18 October, 2013	Suzhou	<a href="#">CSHA / ISSCR Joint Meeting on Stem Cells in Science and Medicine</a>
Biology	15-20 October, 2013	Beijing	<a href="#">The 11<sup>th</sup> World Conference on Animal Production · WCAP2013</a>
Neuroscience	21-25 October, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Development, Function and Disease of Neural Circuits</a>
Immunology	28 October-1 November, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Tumor Immunology and Immunotherapy</a>
Metabolism	4-8 November, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Nuclear Receptors and Diseases</a>
Microbiology	18-22 November, 2013	Suzhou	<a href="#">CSH Asia 2013 Conference on Bacterial Infection and Host Defense</a>

### Policy & Papers

#### Government unveils 2013 intellectual property plan

An interdepartmental agency comprising 28 Chinese government organizations released its annual intellectual property plan of action. Composed of 84 detailed measures, the plan is intended to fulfill eight major tasks, including intellectual property creation, protection, utilization, management and awareness promotion. Last year, the agency issued 90 measures. Despite having fewer items, this year's plan has more clearly defined targets regarding the agency's next steps, said Huang Qing, director of the protection and coordination department at the State Intellectual Property Office. Two of the focuses will be review and assessment of the Outline of the National Intellectual Property Strategy, which was launched five years ago, and IP strategies in some key industries, Huang said. Another highlight of this year's plan is a greater focus on work that requires cooperation among government departments. According to the plan, the nation's intellectual property strategy will be integrated with policies for a number of industries. The plan calls for increasing efforts in terms of IP risk assessment and advisory functions in some emerging industries of strategic importance. (Source: [China Daily](#))

#### Firms urged to map out IPR plan

Chinese companies have been urged to draw up a strategic plan in order to protect their intellectual property rights (IPR), according to the China Council for the Promotion of International Trade (CCPIT) deputy secretary-general Yu Xiaodong. "Chinese enterprises, which aim at global markets, should have much earlier concerns over protecting their IPRs," said Yu. He was speaking at a seminar held by the CCPIT, analyzing the Patent Cooperation Treaty and sharing experiences of IP protection with enterprise deputies. Yu said the CCPIT is making efforts to provide a better service to Chinese companies under cooperation with the State Intellectual Property Office (SIPO). Ma Hao, chairman of the International Chamber of Commerce (ICC) China IP Committee, said intellectual property has become a core value to compete in the international community and appealed for all people working in the industry to innovate. The ICC China IP Committee was established by the CCPIT in 2012, and is expected this year to release a series of activities concerning IP issues so as to form a communicative platform for Chinese enterprises to protect their IPRs. According to SIPO figures, a

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total of 217,105 invention patents to domestic and overseas applicants were authorized in 2012, up 26.1 percent from the previous year. (Source: [China Daily](#))

### **China handles more IPR crimes in 2012**

Chinese authorities said that the country strengthened intellectual property rights (IPR) protection in 2012, with courts handling more IPR-related cases and police cracking down on IPR violations involving billions of U.S. dollars. Last year, local Chinese courts received a total of 87,419 IPR-related civil cases, up 45.99 percent year on year, according to data released by a state IPR work group involving 28 government departments. Procuratorates nationwide handled 17,244 IPR violation cases and approved arrests of suspects in 5,256 cases, up 203.1 percent and 20.3 percent year on year, respectively, the work group said at a press conference. During the same period, the police investigated 44,000 cases of counterfeiting that involved goods valued at 11.31 billion yuan (1.8 billion U.S. dollars), while customs officials confiscated over 15,000 batches of infringing products. State copyright authorities also shut down 183 websites last year in a campaign against online IPR infringement and piracy. Huang Qing, a senior official with the State Intellectual Property Office, said more efforts will be put into building a long-term mechanism against IPR violations. (Source: [People](#))

### **Nature: China May Soon Surpass Japan In R&D Publication Output**

China may soon surpass Japan as the Asia-Pacific leader in research output, says a new report by the Nature Publishing Group. The Nature Publishing Index 2012 Asia-Pacific, released today as a supplement to Nature, revealed that the top institution in the region in 2012 was The University of Tokyo, while 80 of the top 200 research institutions in the region – and six out of the top ten – are in Japan. The top four institutions have also not changed from 2011: Kyoto University, RIKEN, and Osaka University make up the top four with The University of Tokyo. But the Japanese university will almost certainly lose its crown to the Chinese Academy of Sciences (CAS) in 2013, owing to the Chinese institution's faster growth on a month by month basis. In 2012, Japanese authors published 398 articles in Nature research journals compared with China's 303. Measured by corrected count, which takes into account the relative contribution of individual authors in joint publications, the difference is even more: Japan at 233.87 compared with China at 150.03. Japan's dominance, however, may not last long: In the past five years China has increased its publication count by 300 percent compared with Japan's 55 percent. After Australia in third place, South Korea sits firmly in fourth place with almost double the output of fifth-ranked Singapore. Her newly elected president, Park Geun-hye, plans to make science and technology policy a cornerstone of her government, with a forecasted increase in R&D investment as a proportion of GDP to five percent by 2017. (Source: [CAS](#))

### **China climbs on human development index**

A report released by the United Nations Development Program (UNDP) placed China 101st in a ranking of 187 countries and regions based on the quality of life enjoyed by their populations. China measured 0.699 in the UNDP's "human development index" (HDI) in 2012, up from 0.695 in 2011. It sees China remain above the average level of regions and the BRICS nations -- Brazil, Russia, India, China and South Africa, according to the 2013 Human Development Report -- The Rise of the South: Human Progress in a Diverse World. The report looks at the distinction between the fast-developing South, as defined in political terms, and the more developed political North. China's 0.699 on the HDI

represents a remarkable increase of 72 percent from the 0.407 it registered on this scale in 1980, or an average year-on-year growth of 1.7 percent. (Source: [China Daily](#))

### **Top 10 innovative cities in Asia-Pacific**

Singapore ranks as Asia Pacific's top innovative city, according to a new survey conducted by Solidiance, a strategy consulting firm based in Asia. The comprehensive study aims to help industry players identify the best places to plant and grow their businesses. It was designed to determine whether or not a particular city had created an effective and innovation ecosystem. Six main categories were used in this study as benchmarks to measure each city's level of innovativeness: Human talent, knowledge creation, technology & innovation ecosystem, society, government & regulatory framework, as well as global integration and orientation towards the future. As the biggest winner, Singapore outperformed all other ranking cities through its level of global integration. It is known for its sustainable infrastructure, proper business amenities and business-friendly ecosystem. China has only two cities among the top 10 (*Taiwan's Taipei and Hong Kong*), indicating the world's second largest economy has yet to establish an innovation-driven growth pattern. The following are the ten most innovative cities within the Asia-Pacific (from 10<sup>th</sup> to 1<sup>st</sup>): Taipei, Pusan, Osaka, Seoul, Tokyo, Auckland, Hong Kong, Melbourne, Sydney, Singapore. (Source: [People](#))

### **Urbanization needs more quality: report**

Chinese cities should pay more attention to the quality rather than the rate of their urbanization so as to boost the country's balanced development, said a report released by a think tank. The report, co-released by the Chinese Academy of Social Sciences (CASS) and Beijing-based China Economic Weekly magazine, emphasizes three aspects of evaluation standards - the quality of urban development, efficiency of urbanization, and urban-rural coordination - which are given different weightings in calculating the urbanization quality indexes for 286 Chinese cities. The higher the index, the better the urbanization quality, according to the report. Sub-indicators include positive factors such as per capita GDP, per capita disposable income and per capita financial expenditure on education. Negative factors include the amount of sulfur dioxide emitted per unit of GDP and the income gap between urban and rural residents. The report said that Shenzhen, Beijing and Shanghai have taken the lead so far. Coastal cities have obviously better urbanization quality than those in central and western regions, and cities with a larger scale tend to have better quality. China's urbanization lacks quality, and it is important for it to be enhanced, Wei Houkai, team leader in writing the report and deputy director of the Institute for Urban and Environmental Studies with the CASS, told the Global Times Tuesday. (Source: [People](#))

### **Zone to continue to stimulate growth**

Beijing's national-level Yizhuang Economic and Technological Development Zone has vowed to further boost its economic growth and attract investment in the coming year. The capital's southern suburb of Yizhuang has pledged a gross regional product increase of more than 15 percent in 2013, a gross industrial output value rise of 20 percent and gross investment increase of more than 20 percent this year. Development zone authorities said the suburb will further improve its business environment, including the infrastructure, services and management system, adding that it has also become in recent years a choice location for many leading global pharmaceutical and medical equipment companies that want to tap into the Chinese market. The municipal government said more

policy support will be provided to promising enterprises in the coming three years. The gross regional product of the development zone in 2012 reached 82 billion yuan (\$13.19 billion), a year-on-year increase of 5 percent. The tax revenue has reached 27.7 billion yuan, a year-on-year increase of 13 percent. The total investment in the zone in 2012 was \$6 billion, the zone authority said. (Source: [China Daily](#))

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## Voices and opinions

### Top political advisor urges scientific development in Guizhou

Top political advisor Yu Zhengsheng has called for concentrated efforts to push forward scientific development in southwest China's Guizhou Province. Yu made the remarks during a recent tour of the province that took him to factories and enterprises, ethnic villages, and urban communities. Yu also came to the Zunyi Cemetery of the Red Army Martyrs to pay tribute to them. While visiting the ethnic villages, Yu stressed the importance of regional autonomy for minorities and urged efforts to enhance communication and exchanges between ethnic groups. Yu asked local authorities to take advantage of state strategies to support development in west China, advance economic restructuring, step up infrastructure building and protect the environment to achieve sustainable growth and improve the well-being of local people. During his visit to Bijie, an extremely poor city that was selected as an experimental zone for poverty alleviation, ecological construction and population control efforts in 1988, Yu hailed the progress made in the city and called for greater efforts to be made in the area. (Source: [People](#))

### New Head of China's NSF Speaks Out

In 1984, as a graduate student at Brown University, Yang Wei took a course in materials science taught by a new assistant professor. Even though the professor, Subra Suresh, was 2 years younger than the student, he has since become a kind of a role model for Yang, who last month took the helm of the National Natural Science Foundation of China (NSFC). Yang points to Suresh, who is about to step down as director of the U.S. National Science Foundation (NSF), as an example of an engineer who has successfully led a science funding agency. As China's equivalent to NSF, NSFC disbursed \$2.8 billion last year through peer-reviewed grants and programs to support basic research, young talents, and facilities. Yang received his Ph.D. at age 31 from Brown's School of Engineering. Like that of many of his generation, Yang's education was delayed by China's Cultural Revolution. In the tumultuous late 1960s and early 1970s, Mao Zedong sent urban youth to the countryside to learn from farmers. Yang was 14 when he went to Yan'an, Mao's revolutionary base during the anti-Japanese war. "We spent our teenage years doing hard work and learning about real life," Yang says. He taught himself high school material while working on a farm near Yan'an, studied in an engineering college in Xi'an as a worker-farmer-soldier trainee, and was among the first to pursue a graduate degree in post-Mao China. "We had determination, we had dreams, and we knew how to achieve our dreams, step by step," Yang says. In his first interview with the press since becoming NSFC president on 22 February, Yang talked to Science about plans to improve NSFC's grant management, strengthen academic integrity, and stamp out misconduct. (Source and full interview: [Science](#))

## Li sets out strategic mission for next 5 years

Premier says government will focus on growth, welfare and social justice; he vows to press ahead with reforms, ensure the rule of law and boost national prosperity. Premier Li Keqiang outlined the top three tasks of the new government over the next five years, and vowed to push forward reforms and the rule of law, at his media debut in his new position on Sunday 17 March. Maintaining economic growth, improving people's livelihood and safeguarding social justice are the government's three main tasks, Li said. (Source: [China Daily](#))

## Promise of iron fist against pollution

Premier Li Keqiang vowed on Sunday to use an "iron fist" to tackle China's pollution and food safety problems. "We will upgrade the country's economic development model to enable people to enjoy clean air, and safe drinking water and food," he said at a news conference after the conclusion of the annual legislative session. He was "upset" by the heavy smog that has blanketed Beijing and much of eastern China at times in recent months, he said. "This government will show even greater resolve and take more vigorous efforts to clean up such pollution," he said. The 57-year-old premier promised the government will set deadlines to tackle pollution and be tough with polluters. "We need to face the situation and punish offenders with no mercy and enforce the law with an iron fist," he said. Levels of PM2.5 — particulate matter of 2.5 microns or smaller — reached severe levels of between 270 and 290 micrograms per cubic meter on Sunday in Beijing, according to the Beijing Municipal Environmental Monitoring Center. "We shouldn't pursue economic growth at the expense of the environment. Such growth won't satisfy the people," Li said. The premier added that a series of measures will be implemented to phase out old factories and create a new development model. (Source: [China Daily](#))

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## Thematic activities

### Health

#### Tree Shrew, Novel Model in Human Disease Study

In the long history of biomedical research, animals are always the non-replaceable parts. During the last four decades, 99% of the laureates of Noble Prize in Physiology and Medicine won the honor referring to their animal-based research. For human diseases study specifically, although the non-human primates, such as rhesus monkey, do have their undeniable advantages, the disadvantages are also quite obvious, such as high cost, long reproducing cycle, and ethic issue. Under this circumstance, to find new model animals for human diseases research has been written in scientists' agenda. Tree shrews are small mammals native to the tropical forests of Southeast Asia. Many of their characteristics could right compensate the shortcomings of large non-human primate animals, such as short life span and propagation cycle, low cost, easy to handle as well as their unique high brain to body mass ratio. But, although as a good candidate of model animals, lots of

evidence have indicated that they could be applied in the study of human myopia, depression, hepatitis, etc, still, many physical and genetic details about tree shrews need to be clarified. During the past few years, in order to standardize tree shrews as a model animal, Kunming Institute of Zoology (KIZ) has gathered lots of strength to work on this project. In December 2012, KIZ obtained accreditation, becoming the first normalized tree shrew breeding center in China. Now, it provides over 1000 tree shrews annually to dozens of academic facilities and the inbred strain 5 has been derived. (Source: [CAS](#))

### **Interest in TCM growing globally**

Chinese mainland accounts for 2% of herbal medicine sales worldwide. While some Chinese scholars propose abolishing traditional Chinese medicine, foreign pharmaceutical institutions and industries are pursuing them. More than 100 countries and regions around the world have set up TCM institutions, with the United States, Europe, Japan and South Korea investing heavily in related research and medication development, industry, analyses show. The UK-based pharmaceutical company GlaxoSmithKline PLC announced its first TCM medication research and development program, which targets not just the Chinese market, but the global one as well.

(Source: [China Daily](#))

### **NSFC -JST Workshop on Genomics for Clinical Studies in Shanghai**

NSFC -JST Workshop on Genomics for Clinical Studies was held in Shanghai from February 4th to 5th, 2013, organized by Shanghai Chest Hospital affiliated to Shanghai Jiaotong University under the auspices of National Natural Science Foundation (NSFC) and Japan Science and Technology Agency (JST). The theme of this workshop is Genomics for Clinical Studies. According to different research areas, the workshop was divided into 3 sections, namely "Identification of disease genes, genome cohort studies; Medical Application of Genomics and Technologies for Genomics" with a total of 22 presentations. (Source: [NSFC](#))

### **Maternal Diabetes Impairs Methylation of Imprinted Gene in Oocytes**

For the first time, researchers have shown that poorly controlled maternal diabetes has an adverse effect on methylation of the maternal imprinting gene Peg3, contributing to impaired development in offspring. Previous studies have revealed that offspring of diabetic mothers display a higher incidence of malformations and fetal death, even when a one-cell embryo is transplanted from a diabetic to a non-diabetic mother. Diabetic mothers' oocytes tend to exhibit reduced glucose metabolism, compromised communication between cumulus cells and oocytes, mitochondrial malfunction, and a decreased ovulation rate, all of which can be traced back to reduced gene expression in the embryos. Qing-Yuan Sun and Zhao-Jia Ge of the Chinese Academy of Sciences hypothesized that the reduced gene expression results from disturbed DNA re-methylation during oogenesis and oocyte maturation. (Source: [CAS](#))

### **Researchers Gain New Insights into Bacterial Microbiomes Associated with Colorectal Cancer among Han Chinese**

Despite the prevalence of colorectal cancer (CRC) around the world in general and China in particular, relatively little is known about the underlying causal mechanisms of CRC. Current research that has attempted to find novel risk factors for these disorders suggests that alongside the traditional risks of dietary, genetic, and environmental factors, bacterial infections may play a significant role in CRC.

Previous reports observed that several infectious bacteria, including *Fusobacterium* spp., *Bacteroides fragilis*, and *Escherichia coli*—all of which are widely distributed throughout China—are connected with a higher risk of CRC in several different populations across the globe. These findings prompted ZHANG Zhigang and GENG Jiawei of the Kunming Institute of Zoology, Chinese Academy of Sciences to investigate if connections between CRC and bacteria in the gut microbiome may be a common phenomenon or may even have specific patterns among different populations. In collaboration with researchers at the First People's Hospital of Yunnan's Department of Gastroenterology, ZHANG's team evaluated eight Chinese patients, comparing their cancerous and healthy gut tissues to see if there was a higher prevalence and pattern to some of the hypothesized infectious bacterial agents. ZHANG's team discovered a surprising diversity in the tumor-associated bacterial communities. When comparing their findings to previous studies done on other populations, like the French and the Dutch, ZHANG's team noted that two factors traditionally considered to be strongly involved in risk for CRC—diet and genetics—might play less of a role than previously thought in CRC and these kind of bacterial infections. (Source: [CAS](#))

### **National program to keep TCM healthy**

China's top traditional Chinese medicine authority has announced a nationwide training program. Under the initiative, the State Administration of Traditional Chinese Medicine has appointed 734 leading TCM specialists to instruct 1,465 students in clinical practice and academic research. "The model of master-disciple TCM education is an indispensable part of the overall efforts to train high-quality TCM talent in China," said Wang Lian, a spokesman for the administration. Since 1990, the administration has carried out a series of programs to pass down the time-honored Oriental medical science and help churn out more qualified practitioners, said Hong Jing, deputy director of human resources and education at the administration. To date, she said, more than 2,000 disciples have studied with TCM masters. TCM practitioners can apply for programs through the local TCM authority or be recommended by their hospitals. The final decision is made by the administration, Hong said. Candidates should be at least 45 years old, hold a bachelor's degree and have eight years of experience in practicing TCM. Disciples come from different backgrounds such as TCM clinics, academic research and drug development, Wang said. So far, there have been no foreigners, but he said the possibility cannot be ruled out in the future. (Source: [China Daily](#))

### **BMS to launch new diabetes drugs in China**

International biopharmaceutical company Bristol-Myers Squibb will launch at least four new drugs to treat diabetes in China by 2015, the company said on Tuesday. "Diabetes is one of BMS China's most significant businesses, we will launch four or more new drugs in China in the next two to three years," said Jean-Christophe Pointeau, president of BMS China. The company wants to cash in on the market's huge demand, as China has the world's largest population of diabetes patients — 92.4 million now and forecast to reach 130 million by 2030, analysts said. Pointeau added that his company's efforts are in line with the Chinese government's policies to boost prevention and treatment of chronic diseases and expand medical insurance coverage. The central government issued the China National Plan for Chronic Diseases Prevention and Treatment (2012-2015) last year, with diabetes as a top concern. (Source: [China Daily](#))

### **38% of Chinese suffer from sleep disorder**

In China, 38 percent of people suffer from various kinds of sleep problems, compared to the world average of 27 percent, according to the Chinese Sleep Research Society (CSRS). Currently there are over 80 kinds of sleep disorders, and most people are not aware that sleep disorder can trigger heart disease, according to CSRS on March 16, 2013. Every year, more than 1 million people die of coronary disease, and 30 percent of them suffer sudden death between midnight and 6 am. Every day, more than 3,000 people die of disease related to sleep apnea. (Source: [China Daily](#))

### **Screening is essential**

The 2012 Cancer Registry Annual Report, published by the China Tumor Cases Registration Center earlier this year, said that on average 7,300 people die from cancer on the Chinese mainland every day. That works out more than 2.6 million deaths annually. Lung cancer tops the list in China in terms of the rate of incidence and deaths. The disease is fatal for approximately 26 percent of people who contract it, that's almost double the number of deaths attributable to liver cancer, the number two killer. (Source: [China Daily](#))

### **China completes Mongolian group genome mapping**

Chinese scientists have completed the group genome mapping of the Mongolian people, making them the first Chinese ethnic group to have their genome drawn, a political advisor said Sunday. The group genome samples came from 200 selected volunteers from four Mongolian tribes, Zhou Huanmin, a member of the National Committee of the Chinese People's Political Consultative Conference (CPPCC), the country's top political advisory body, said in an interview. The achievement will reveal the secrets of the Mongolians in terms of their genome features, genetic variations and the evolution of the ethnic group, said Zhou, a professor at Inner Mongolia Agriculture University and the head of a key biotechnology lab in Inner Mongolia. "Chinese scientists have independently drawn the group genome map for the Mongolians using self-owned intellectual properties," said Zhou. (Source: [China Daily](#))

### **Researchers Identify Potential Roles of NK Cells in Pregnancy**

The research group led by Prof. WEI Haiming and Prof. TIAN Zhigang identified that decidual natural killer (NK) cells-mediated regulatory response plays a critical role during pregnancy tolerance. In order to implant and grow, the trophoblast cells from the allograft fetus need to invade the mother tissues and inevitably bring certain inflammatory reaction. How to control these inflammations and maintain tissue homeostasis is the key problem of embryo tolerance. The research group found that large numbers of unique NK cells accumulated at the maternal-fetal interface. Such decidual NK cells showed low cytotoxicity but produce much IFN- $\gamma$ . They also verified that normal decidual NK cells can inhibit TH17 cells by IFN- $\gamma$  and maintain immune balance at maternal-fetal interface. If the pregnant women encountered pathogens such as virus infection, the regulatory function of decidual NK cells would be disrupted, which leads to a prominent TH17 response and increased inflammation, resulting in fetal loss or spontaneous abortion. (Source: [CAS](#))

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## Food, agriculture and fisheries, biotechnology

### Effects of Emitter Discharge Rates on Soil Salinity Distribution and Cotton Yield under Drip Irrigation with Plastic Mulch

Water shortage and soil salinization are two key problems that limit the development of agriculture in arid regions. At present, soil salinization has already become a global environmental hazard and ecological concern. China is one of the biggest soil salinization countries in the world. Xinjiang, a typical arid region located in the northwestern part of China, has a soil salinization area of 0.2 million km<sup>2</sup>, accounting for 22% of the total salinized area in China. The most of the salinized area is located in the Tarim River catchment in South Xinjiang. Under-film drip irrigation technique has been introduced into Xinjiang and is beneficial to enhance crop yield and utilization of water. When drip irrigation is applied in saline soils, it is crucial to develop a proper irrigation schedule that meets both crop water requirement and leaching requirement for salts added in irrigation water within the root zone. Therefore, DANIERHAN Sulitan et al. conducted a field experiment to investigate the effects of different drip irrigation regimes on soil salinity distribution and cotton yield in an arid region of Tarim River catchment. (Source: [CAS](#))

### Chinese scientists unlock key genetic code of wheat

Scientists from China and the United States have mapped a key genetic code for bread wheat, a discovery that will help improve the crop's productivity and ability to withstand extreme conditions. The sequencing and drafting of the A genome, one of the three basic genomes of wheat, was published on the website of the journal Nature on 25 March Monday. Researchers present the generation, assembly and analysis of a whole-genome shotgun draft sequence of the genome of wheat T. urartu, the donor of the A genome. The identification of around 38,000 wheat genes is expected to help provide a valuable resource for accelerating deeper genomic breeding studies and offer a new foundation for the study of wheat evolution, domestication and genetic improvement. The research, launched by a team from the Institute of Genetics and Development Biology under the Chinese Academy of Sciences (CAS), was conducted by Shenzhen-based BGI, a leading genomics organization, and the University of California, Davis. (Source: [Global Times](#))

### Tibet to build first genetic resource bank

Southwest China's Tibet Autonomous Region will start construction on its first genetic resource bank within the year, regional authorities said Wednesday. The bank will help Tibet protect its genetic resources and ensure sustainable conservation, according to the regional science and technology department. The bank will be used to preserve plant seeds, as well as DNA from animals and microorganisms. Tibet's biodiversity is abundant, but its environment is relatively fragile, said Li Hui, a researcher from the Institute of Tibetan Plateau Research under the Chinese Academy of Sciences. The bank will help to ensure the continuation of some species for further study, as well as aid in breeding research for endangered species, Li said. (Source: [Xinhua](#))

### Researchers Find New Approach for Reducing Carbon Dioxide to Methane and Acetic Acid

Bioelectrochemical systems (BESs) are considered to be a new device capable of converting the chemical energy of organic waste into electricity or hydrogen/chemical products, which have been applied in many fields including the biological recovery of heavy metal, reduction of nitrate and

dechlorination of halogenated hydrocarbons. Recently, a fresh viewpoint that carbon dioxide can be fixation and transformation for producing multicarbon organic chemicals and fuels in BESs was put forward. Prof. LI Daping's team from Key Laboratory of Environmental and Applied Microbiology, Chengdu Institute of Biology, Chinese Academy of Sciences has been engaged in the study of the BESs for carbon dioxide fixation for two years. Recently, they found carbon dioxide could be reduced to methane and acetic acid via direct and/or indirect extracellular electron transfer when methanogenesis and acetogenic bacteria were used as electroactive microorganisms attached on the cathode with carbon dioxide as the solar carbon source in BESs. (Source: [CAS](#))

### **New tech on display at agriculture show**

Tan Baolin went into a vegetable greenhouse. "Now, it's music time," he said and pushed a button on a green instrument. The greenhouse filled with a dull buzz immediately. "You may think it's noise, but the vegetables like it. They listen to it one hour in the morning and one in the afternoon every day, and the output increases by 20 percent," Tan told Beijing Daily. Beijing will hold its first Agricultural Carnival in Changping district on March 23, and more than 10 new agricultural techniques will be on display. The audio stimulating instrument is one of them. Other techniques to be displayed include fog cultivation, which changes the nutrient solution into fog drops and help save water and prevent disease. Another technique is a carbon dioxide production instrument that replenishes carbon dioxide for greenhouse vegetables and boost production. (Source: [China Daily](#))

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## **Information and communication technologies**

### **China's cyber security under severe threat: report**

China's cyber security has come under increasingly severe threats amid a variety of safety risks, according to a report released by a national computer monitoring center. Hackers tampered with 16,388 web pages in China -- including 1,802 government websites -- in the past year, up 6.1 percent and 21.4 percent year on year respectively, a National Computer Network Emergency Response Technical Team Coordination Center (CNCERT) report said. In 2012, around 73,000 overseas Internet Protocol (IP) addresses were involved in hijacking nearly 14.2 million mainframes in China via Trojan or Botnet, with the United States being the largest source of such hacking activities. The CNCERT said it monitored 22,308 phishing websites targeting China's growing online population last year, which has grown to 564 million. Up to 96.2 percent of the phishing websites are running on foreign servers, with U.S.-based sites accounting for 83.2 percent of them, according to the report. Zhou Yonglin, a CNCERT official, noted that new security risks will gradually emerge with the application of new technologies such as cloud computing, complicating the center's efforts to trace cyber attacks. He urged the country's related institutions to pool research efforts to enhance cyber security protection. (Source: [Xinhua net](#))

### **Beijing buses to offer Wi-Fi**

More than 10,000 buses in Beijing will offer Wi-Fi service by the end of 2013, Beijing Morning Post reported Friday. The service followed a deal signed in April last year between China Mobile and Beijing Bus Transportation Group, which operates Beijing's bus system and will provide coverage on all routes within the Fourth Ring Road. More than 1,800 buses have wireless Internet access so far,

allowing passengers with Wi-Fi enabled devices to connect to the Internet through China Mobile's network. (Source: [China Daily](#))

### **Quick response codes given trial run on Shanghai buses**

Quick response codes, or QR codes, have been introduced to 153 Shanghai buses on seven routes. The move is part of a trial designed to allow passengers to check the whereabouts of buses and their expected arrival times. The codes are expected to cover the city's 580 bus routes by the end of the year, according to Shanghai-based news portal eastday.com. Information, including a bus routes map, license numbers of buses and a timetable, can be accessed by scanning the QR code, a type of two-dimensional code, at bus stops by using a smartphone. Although some users complained about receiving incorrect information after using the system, Shanghai Ba-shi, one of the city's main bus operators, said it is only a trial run and that by June, when the trial is over, the service is expected to be introduced across the city. (Source: [China Daily](#))

### **SINANO-led Research Team Develops New Compact and Energy-efficient Nanoscale Microwave Oscillators**

By using improved magnetic materials, based on the control of interface properties of ultra-thin magnetic films, researchers from the Suzhou Institute of Nano-tech and Nano-bionics, Chinese Academy of Sciences (SINANO), the University of California at Los Angeles(UCLA), and the University of Messina have made major experimental improvements to develop a more compact, more energy-efficient generation of a mobile communication device known as spin transfer nano-oscillator (STNO). STNOs use the spin of electrons to create steady microwave oscillations needed for various applications in mobile communications, unlike current silicon-based oscillators which use their charge. The SINANO team's improved oscillator has great potential to be used in future portable electronic devices and wireless modules, systems on a chip, and for power-efficient local clock signal generation in digital systems. (Source: [CAS](#))

### **China Mobile: 4G licensing expected by year-end**

The chairman of China Mobile, the world's largest carrier by subscriber base, says the rollout of 4G technology in the country is just around corner. Speaking on the sidelines of the on-going two sessions, Xi Guohua, a CPPCC member, also said that the carrier is extending a trial of 4G networks. According to China Mobile, the fourth generation technology offers 10 times bigger bandwidth and 10 times transmission speed than its 3G predecessor. The operator plans to build more than 200,000 4G base stations. The network, when completed, will be the largest of its kind worldwide, and will cover a population of more than 500 million. Xi Guohua, chairman of China Mobile, said, "We will further expand the current trial on a large scale network. We plan to build 4G base stations in 100 cities, and purchase 1 million terminals." (Source: [China Daily](#))

### **Chinese smartphone makers dial up innovation, growth**

In China's booming smartphone market, which overtook the United States as the world's largest last year, a host of domestic firms have innovation on the brain, especially as the industry is on pace for even greater growth. Within minutes of going on sale online, Xiaomi Technology sold 2.5 million units of its M12 smartphone, which has specifications that, some say, exceed that of the iPhone and retails for less than half the price on the Chinese mainland. Lei Jun, CEO of Xiaomi Technology Co., forecast that the company's sales would double this year. In 2012, the turnover of the company

founded less than three years ago amounted to 12 billion yuan (\$1.93 billion). Many industry insiders, like Lei, have faith in China's mobile phone market. Big names like Huawei, ZTE and Lenovo have elbowed their way in, hoping to grab a piece of the market. Statistics from IDC, an IT company and market researcher, show that China's smartphone market could grow by as much as 44 percent this year, with total smartphone shipments approaching 300 million units. A total of 67.21 million smartphones were sold in China in the fourth quarter of 2012, up 236.4 percent year on year, with domestic brands contributing to 77.9 percent of total sales, according to statistics from the China Academy of Telecommunication Research. (Source: [Global Times](#))

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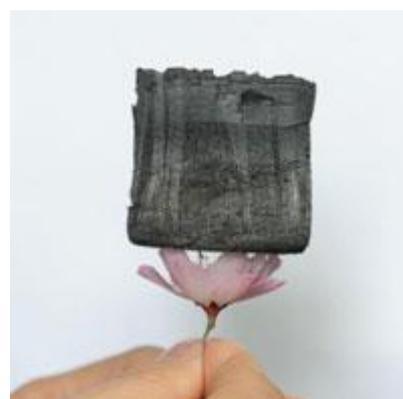
## Nanosciences, nanotechnologies, materials and new production technologies

### Researchers at NIMTE Developed a Novel Biomaterial and Solved Toughening Problems for Bioceramics

The bioceramic, hydroxyapatite (HA), has been successfully used in orthopedic surgery for promoting fast fixation of bony tissues due to its similarity in chemistry to human skeletal bone. Allowing direct apposition of host bony tissue, good osteoconductive and osteoinductive capabilities offer HA a great advantage in clinical applications. However, the intrinsic brittleness and low fracture toughness of bulk HA are yet major hurdles that impede its long-term functional service after clinical surgery under load-bearing conditions. Developing novel HA-based biomaterials with excellent biological and mechanical performances has therefore been one of the most exciting research goals for biomaterials community. Recently, Prof. LI Hua's group from the Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences (NIMTE) developed novel HA-graphene nanocomposites and solved the longstanding toughening problem for bioceramics. The research appears in the issue 13, 2013 of the *Journal of Materials Chemistry B* (*J. Mater. Chem. B* 2013, 1, 1826-1834). (Source: [CAS](#))

### University creates world's lightest material

Chinese scientists say they have developed the world's lightest material, which they expect to play an important role in tackling pollution. With a density of just 0.16 milligrams per cubic centimeter, a sixth that of air, graphene aerogel - which is also known as carbon aerogel - has been developed by Professor Gao Chao from Zhejiang University in Hangzhou. He said the most significant qualities of the new material are its ease of manufacture, and its strong oil-absorption. The material is derived from a gel, with the liquid component replaced by a gas. It appears in solid state with extremely low density. "Carbon



aerogel is expected to play an important role in pollution control such as oil spill control, water purification and even air purification," said Gao, whose research paper on the material was first published online in the academic publication *Advanced Materials* on Feb 18, and in the research highlights column of *Nature* magazine. In addition to being used in pollution control, carbon aerogel is expected to become an ideal material for energy storage insulation, as a catalytic carrier, and in

sound absorption. For years, scientists around the world have been looking for ways to produce the lightest known material. (Source: [China Daily](#))

### **Researchers Reveal Origin of Symmetry Energy in Finite Nuclei and Density Dependence of Nuclear Matter Symmetry Energy**

Researchers in the Theoretical Physics Group at Institute of Modern Physics, Chinese Academy of Sciences (IMP) have investigated the origin of symmetry energy in finite nuclei and the density dependence of the symmetry energy of nuclear matter around the saturation density. Based on the Skyrme energy density functional, researchers derived directly the density functional for the symmetry energy, and obtained the spatial distribution of the symmetry energy of a finite nucleus (Figure). It was found that the surface part of a heavy nucleus contributes dominantly to its symmetry energy compared to its inner part. The symmetry energy coefficient was then directly extracted and the ratio of the surface symmetry coefficient to the volume symmetry coefficient  $\kappa$  was estimated, which agrees with that obtained from the measured nuclear masses. (Source: [CAS](#))

### **LICP Researchers Accomplish Controlled Brush Growth through Catalyst Diffusion**

As a kind of typical interface materials of soft matter, polymer brushes have been widely used in tuning surface wettability and adhesion, lubrication, biocompatibility, anti-protein adhesion, anti-biofouling and so on. (Chem. Soc. Rev., 2011, 40, 4244-4258) It is of great theoretical and practical significance to prepare polymer brushes with tunable thickness, composition and structure via controllable surface initiated radical polymerization. Surface initiated atom-transfer radical polymerization (ATRP) is one of the major approaches used to assemble polymer brushes. However, there exist several disadvantages concerning the method, such as the poor tunability of the growth of polymer brushes, use of inert gas, use of large amount of monomer solution, etc. The surface/interface research group at the State Key Laboratory of Solid Lubrication, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, has been long engaged in the study of assembly of polymer brushes. They have, for the first time, accomplished surface initiated electrochemically mediated ATRP (SI-eATRP) on the conducting substrate, Au. (Angew. Chem. Int. Ed., 2012, 51, 5092-5095). With their new approach, the use of inert gas and waste of monomer can be avoided. The reaction can be carried out just in air and the monomer solution can be reused for several times. Moreover, they have achieved the in-situ-tracking of the process of surface initiated ATRP. (Source: [CAS](#))

### **Research on Growth Mechanism and Size Control of FePt Nanoparticles**

The size of magnetic nanoparticles (NPs) has an important effect on their own physical properties, such as Curie temperature, coercivity, saturation magnetization, and their magnetization behavior as well. Therefore, the particle size is one of the important parameters of magnetic nanoparticles and to prepare magnetic NPs with accurately controlled size using a simple and tunable method is one of the preconditions for their actual application. Prof. DU Juan and her colleagues from the Nanoscale Magnetic Materials Group, the Ningbo Institute of Materials Technology & Engineering, Chinese Academy of Sciences (NIMTE) have investigated the growth mechanism and size control of FePt NPs for years. Their research showed that reaction temperatures have an intensive effect on the nucleation and growth process of FePt NPs during the synthesis process of FePt NPs. (Source: [CAS](#))

## **Thermopile Analog Front-End and High Precision Temperature Sensor Chip Developed in IMECAS**

The Analog and Mixed-signal IP team of ASIC & SYSTEM Department of Institute of Microelectronics, Chinese Academy of Sciences (IMECAS) recently completed a thermopile analog front-end and high precision temperature sensor chip test in “SoC for Thermopile” project. The results showed that, the chip had reached a high level on function and performance. (Source: [CAS](#))

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## **Environment (including climate change)**

### **Third Pole Glaciers Shrinking, Affected by Black Carbon**

About 90 percent of glaciers in the Third Pole region are shrinking, accelerated by black carbon being transferred from South Asia to the Tibetan Plateau, a top scientist has warned. The Third Pole region, which is centered on the Tibetan Plateau and concerns the interests of the surrounding countries and regions, covers more than 5 million square kilometers and has an average altitude of more than 4,000 meters. The area has the largest number of glaciers outside the polar regions and exerts a direct influence on the social and economic development of some of the most densely populated regions on earth, including China and India. The glaciers are at the headwaters of many prominent Asian rivers. Influenced by global warming, its alpine glaciers have seen drastic changes in recent years, such as thinning and shrinkage, which pose potential geological hazards to people both on and around the plateau. (Source: [CAS](#))

### **China, Australia join hands in global carbon challenge**

As the world watches China take the lead on a national carbon-pricing scheme, experts from Australia's prestigious University of New South Wales (UNSW) will begin work with leading Chinese universities in a landmark collaboration to be announced in Sydney. The collaboration will be announced at the Australia China Climate Change Forum at UNSW on March 27. It will be attended by senior Australian government officials and their Chinese counterparts. The forum will unite policy and technical experts in emissions reduction as well as representatives of major industries and businesses from both sides of a growing sphere of Sino-Australian cooperation. (Source: [Xinhua net](#))

### **Consortium set up to promote eco-civilization**

To prompt the development of an eco-civilization and achieve poverty alleviation in China and the world, the Global Consortium for Eco-civilization Scientists Union was established in Beijing with more than 100 scientists from home and abroad attending on March 21. Wang Wenbiao, chairman of the China Elion Foundation, who is also founder of the organization, said improving air quality and controlling sand and dust have become key parts in building an eco-civilized country and alleviating public concern. The commitment of the consortium is to promote China's eco-civilization and the development of a global green civilization. The new organization will provide a platform for its scientist members to share the latest technical innovations and scientific research findings on eco-civilization and sustainable development. The consortium is organized by China Elion Foundation, China Ecological Civilization Research and Promotion Association, International Desert Research Association and International Ecosystem Management Partnership. Funding for the preparation and

initial operation of the secretariat will come from China Elion Foundation. Donations from other sources are welcomed. (Source: [China Daily](#))

### **Beijing's water resources meets only 40% of demand**

Beijing's water resources can supply only 40 percent of the city's population, according to a blue book by the Chinese Academy of Social Sciences. Data on the city's water resources is included in a blue book from the Capital University of Economics and Business. It is the first research project focusing on regional capacity. According to the blue book, per capita demand for water resources in Beijing is 345 cu m, yet water resources can only supply 6.67 million people, or 40 percent of the population. The average water quantity in Beijing is 2.3 billion cu m, while demand is about 3.5 billion cu m. (Source: [China Daily](#))

### **China to build unified low-carbon certification system**

China will build a unified certification system for low-carbon products as part of its efforts to boost the consumption of green goods, according to the country's top economic planner. An independent third-party agency will assess the carbon footprint of products and services and grant low-carbon certificates to those that have met certain requirements, according to a document issued by the National Development and Reform Commission (NDRC). The NDRC will then issue a catalogue of certified products and an identification mark will be printed on the products' packaging, according to the document. The certification scheme is being piloted in the provincial regions of Guangdong, Chongqing and Hubei. The expansion of the pilot program is part of growing efforts to push for a greener growth model. (Source: [Global Times](#))

### **China's nearshore seawater quality degrading**

China's nearshore seawater pollution is still severe and its seawater quality degraded in 2012, according to data revealed on Wednesday by the country's State Oceanic Administration (SOA). Last year saw around 68,000 square km of nearshore waters graded as the worst level of seawater quality, which is only suitable for sea ports and oceanic development. This was 24,000 square km more than 2011, the SOA said. It added that a total of 170,000 square km of nearshore waters have not reached the first grade of seawater quality, which is suitable for marine fishery and marine natural reserves. According to the administration, in 2012, about 19,000 square km of neashore waters were affected by eutrophication, a process in which water bodies receive excess nutrients that stimulate the excessive growth of plants such as algae and nuisance weeds. (Source: [China Daily](#))

### **China names regions for seawater desalination**

The first batch of regions and companies have been selected to carry out seawater desalination pilots, China's National Development and Reform Commission, the country's top economic planner, has announced. China announced a five-year development plan for the industry last year to ease the country's water shortages. The country aims to produce 2.2 million cubic meters of seawater-converted freshwater per day by 2015, compared with 660,000 cubic meters in 2011, according to the 2011-2015 plan. More than half of freshwater channeled to isles and more than 15 percent of water delivered to coastal factories will come from the sea by 2015, according to the plan. Industrial analysts estimated the development plan will require investment of around 21 billion yuan (\$3.35 billion). (Source: [China Daily](#))

### **Intl Mission to Mitigate Mercury: Sinomer addresses contamination with new tech**

To address mercury pollution, an issue that has largely been overlooked in the country, China's environmental authorities are conducting a series of technology assessments and submitting proposals for policy solutions. The Foreign Economic Cooperation Office of the Ministry of Environmental Protection is assessing pollution control, products containing mercury and the restoration of polluted sites. The plans are a major component of a project started in 2006 called SINOMER, the first international partnership aimed at controlling mercury in China. Tsinghua University, the Institute of Geochemistry of the Chinese Academy of Sciences, Chinese Research Academy of Environmental Sciences and Chinese Academy of Environmental Planning of Ministry of Environmental Protection are the main partners in the project. The first phase of the project - SINOMER I, completed in 2009 - was a case study in Guizhou. SINOMER II also hosts an international mercury pollution control workshop each year, inviting scientists for companies and government agencies to enhance cooperation on control technologies and policies. The first workshop was held in November 2010. (Source: [CAS](#))

### **Coniferous trees 'better able to help decrease PM2.5 levels'**

Coniferous trees are believed to have a better effect on air quality control, especially in decreasing PM 2.5, particulate matter smaller than 2.5 micrometers in diameter, according to an expert. Yin Shan from the School of Agriculture and Biology at Shanghai Jiao Tong University, said coniferous trees, including cedar, metasequoia and dragon juniper, have a more positive effect in this respect than deciduous trees, such as the ginkgo and camphor, as they are better able to absorb pollutant particles. "The rough surfaces of these coniferous trees' leaves can produce sap that has a detention function — some of them can keep the atmospheric particulates on their surface, while some can even absorb PM 2.5," said Yin. (Source: [China Daily](#))

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## **Energy**

### **Bi<sub>2</sub>Fe<sub>4</sub>O<sub>9</sub> Submicron-rods Synthesized by a Low-heating Temperature Solid State Precursor Method**

With the increase of environmental pollution, the "green" technology for air and water purification with solar energy has attracted much interest. TiO<sub>2</sub> is undoubtedly an excellent photocatalyst for the oxidative decomposition of many organic compounds under UV irradiation. However, the relatively wide bandgap (3.2 eV) limits its further application under visible irradiation. Researchers adopted precursor method to further calcine in low-heating temperature range from 600 to 800 °C to directly synthesize novel Bi<sub>2</sub>Fe<sub>4</sub>O<sub>9</sub> submicron-rods. It turns out that the Bi<sub>2</sub>Fe<sub>4</sub>O<sub>9</sub> submicron-rods attained at 700°C possess a perfect submicron-rod shape with a smaller bandgap (1.76 eV), which is smaller than the reported value of TiO<sub>2</sub> (3.2 eV) (Fig. 2). (Source: [CAS](#))

### **Suntech bankruptcy hurts new energy drive**

The bankruptcy of solar panel giant Wuxi Suntech made front page news on Thursday, with many reports looking to the factors that caused the bankruptcy, as well as the bankruptcy's future impact.

Suntech's problems are undoubtedly a heavy blow to the industry and the country's drive to promote new energy. Hopes that were pinned on the sector's rise have been dashed. Suntech is not the first solar energy company to find itself trapped in a debt crisis. Chaori Solar, another leading player in the solar energy industry, ran into debt last December. Generally speaking, none of the companies operating in the solar industry have been in a comfortable position in recent years. It's not a problem that is specific to any one company -- the whole industry is in danger. Some have criticized Suntech and some other companies for misjudging the market and expanding without measure. But the real reasons behind the crisis lie in the sector's lack of cost-efficiency. In its 12th Five-Year Plan (2011-2015), the government paid special attention to new energy industries, including solar energy, wind power, hydropower, nuclear power and biomass energy. The government has shown determination to solve China's pollution problems. (Source: [China Daily](#))

### **Chinese solar panel giant declares bankruptcy**

Leading solar panel maker Wuxi Suntech, a major subsidiary of the New York-listed Suntech Power based in east China's city of Wuxi, declared bankruptcy on Wednesday. In accordance with China's Bankruptcy Law, The Wuxi City Intermediate People's Court on Wednesday approved Wuxi Suntech's bankruptcy and restructuring following a joint application issued by the company's nine creditor banks on Monday. The company made no objection to the ruling. Founded in 2001, Wuxi Suntech supplies for more than 95 percent of Suntech Power's products. As of February, Wuxi Suntech's credit balance for the local and foreign currencies of the creditor banks totaled 7.1 billion yuan (\$1.14 billion), a senior company manager said. The banks also expect the company to seek a third party for strategic reorganization in order to revive the company, according to the manager. As one of China's four largest solar module makers, Wuxi Suntech was founded in 2001 by Shi Zhengrong, a prominent solar power scientist. In 2005, Suntech Power Holdings Co., Ltd., or Suntech Power, was founded and listed in New York. (Source: [China Daily](#))

### **Shale gas to spark equipment boom**

China's shale gas development will bring business opportunities to the related equipment manufacturing industry with a market value of about 3 billion yuan (\$477 million) this year, a 33 percent growth compared with last year, industrial insiders said. The second round of tenders for China's shale gas blocks was held last year, leading to increasing demand for fracturing equipment in the second half of this year, said Zhang Guoyou, general manager of the domestic sales department of SJ Petroleum Machinery Co under State-owned Sinopec Group, the country's largest oil and gas refiner. According to China's 12th Five-Year Plan (2011-15) on energy industry, the country will realize large-scale commercialized production of shale gas by 2015. To meet the target of 6.5 million cubic meters of production capacity by 2015, China is accelerating its pace in surveying and exploring the unconventional energy source. Experts said the main obstacle is the technology barrier during exploration. However, equipment manufacturing companies have achieved some progress. Zhang said the company will invest 1.1 billion yuan on research for shale gas exploration equipment during the 12th Five-Year Plan. (Source: [China Daily](#))

### **China on track to become the top solar PV user in the world**

China is expected to overtake Germany as the largest solar photovoltaic, or PV, consumer in the world in 2013, according to a report from market research institute NPD Solarbuzz. The report released by the California-based institute on Wednesday said global solar PV demand will increase

from 29 gigawatts to 31 gW in 2013, up 7 percent year-on-year. Demand from China will be a strong driving force for the growth. Due to further reductions in European premium incentives, demand in this region will fall to approximately 12 gW, down 26 percent year-on-year. In contrast, new policies across leading PV countries in the Asia-Pacific region, led by China, Japan, and India, will stimulate regional growth of over 50 percent and account for more than 11 gW of PV demand in 2013, said the report. (Source: [China Daily](#))

### **China to restructure National Energy Administration**

China plans to restructure the National Energy Administration (NEA) in order to streamline the administrative and regulatory systems of the energy sector, according to a report delivered by State Councilor Ma Kai to the parliament's annual session on Sunday. The new NEA will incorporate the functions of the State Electricity Regulatory Commission, Ma said in the report on the institutional reform of the State Council, China's cabinet. The State Electricity Regulatory Commission (SERC) is to be dissolved, according to the state councilor. The main responsibilities of the consolidated administration will include drafting and implementing energy development strategies, plans and policies, advising on energy system reform and regulating the sector, Ma said. In the last round of government institutional reform in 2008, China established the NEA, which was under the jurisdiction of the National Development and Reform Commission (NDRC). The new administration will remain under the jurisdiction of the NDRC, which will focus on coordination between planning in the energy sector and that of the national economy and social development, Ma said. China consumed 3.62 billion tonnes of standard coal equivalent in 2012, up 3.9 percent year on year, the National Bureau of Statistics (NBS) reported in February. Last year, the consumption of coal, crude oil, natural gas and electricity rose 2.5 percent, 6.0 percent, 10.2 percent and 5.5 percent from a year earlier, respectively. (Source: [China Daily](#))

### **China to boost coalbed gas sector**

China will earmark more funds and roll out favorable policies to further exploit its coalbed methane reserves amid increased efforts to step up new energy exploration, the central government has said. The Chinese government will allocate more money from the central budget and encourage the inflow of private capital for this emerging energy sector, according to an industrial policy released online by the National Energy Administration on Monday. Preferential measures including helping enterprises to finance and improving the gas pricing mechanism are also noted in the policy. China plans to complete the construction of two major production bases in the country's central and western regions in 2015, and increase the number to three to five in another five to 10 years. The Ministry of Land and Resources said previously that the country is aiming to produce 16 billion cubic meters of coalbed methane and put 7.4 billion cubic meters into use in 2013. China's coalbed methane reserves are estimated at 36.8 trillion cubic meters, ranking as the third-largest in the world after Russia and Canada. (Source: [China Daily](#))

### **China plans 20% growth in nuclear power output**

China's plan to raise installed nuclear power capacity by 20 percent this year indicated the country is developing nuclear power in a safe and efficient way, a senior energy executive has said. Nuclear power totaling 3.24 gigawatts (GW) will be added in 2013, according to a report of the National Development and Reform Commission, China's economic planner, on national economic and social progress, which was submitted to the ongoing annual parliamentary session. The planned installation

indicates that China is making greater efforts to develop nuclear power in a safe and efficient way, said He Yu, chairman of the China Guangdong Nuclear Power Group. According to a government white paper on energy released in October 2012, China had 15 nuclear power-generating units in operation with a total installed capacity of 12.54 GW. He said China has another 30 units currently under construction, which will add another 32.81 GW. He said China will have the third-largest number of nuclear power-generating units in operation in the world by 2020, following the United States and France. But even when the installed capacity of the units amounts to 58 GW by 2020, it will account for less than 4 percent of China's total power-generating capacity, compared with over 50 percent in France at present, He said. (Source: [China Daily](#))

### **Subsidies for solar power plants lower than expected**

China's top economic planner has issued a draft regulation showing lower-than-expected subsidies for distributed solar power projects, industry insiders said. Distributed solar farms will receive subsidies of 0.35 yuan (\$0.05) per kWh, the draft issued by the National Development and Reform Commission, PV-Tech reported on March 10. Meanwhile, the country has set four rates from 0.75 yuan to 1 yuan per kWh for solar-power plants in different regions to sell electricity to grid operators, according to the draft. Industry insiders and analysts said the subsidy for distributed solar projects is below expectations, which indicates the authority's position to push forward industrial integration amid a supply glut. (Source: [China Daily](#))

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## **Transport (including aeronautics)**

### **Beijing aviation expo expects latest aircrafts**

The Fifteenth [Aviation](#) Expo China is set to start on Sept 25 at the China National Convention Center in [Beijing](#). Aviation Industry Corporation of China, one of the expo organizers, will display its J-10 and FC-1 fighters, and Modern Ark series civil aircrafts at its 700-square-meter booth, according to Fu Mingyao, vice-director of the general office at AVIC, at a news conference in Beijing. AVIC is also the manufacturer of the carrier-borne J-15 fighter. "AVIC expects to bring some of the latest military aircrafts, which are now in the approval process. The new aircrafts may surprise everyone," Fu said. Commercial Aircraft Corporation of China will bring a mock-up of its C919 commercial airliner, and "probably some more C919 orders, but it depends on the business development situations," said Lu Zheng, marketing and sales director at COMAC. (Source: [China Daily](#))

### **Tibet to invest \$3.5b in transport**

Southwest China's Tibet autonomous region will invest 22 billion yuan (\$3.5 billion) in transport construction this year, a senior regional official said. A highway from regional capital Lhasa to Nyingchi and four airport highways will be constructed, according to Tashi Gyatso, head of Tibet Transport Department. The region will also carry out 194 construction projects to make highways available to 258 villages to reach the goal that 99.14 percent of the region's rural villages will be linked to highways. A total of more than 5,000 kilometers of highways will be completed this year, in addition to the construction of four county-level passenger bus stations and two cargo stations. (Source: [China Daily](#))

### **Subsidies retained for green cars: minister**

The central government will increase its subsidies for energy-saving cars and vehicles that run on alternate fuel sources in 2013, a ministry official has said. Miao Wei, minister of industry and information technology, said the country will fine-tune the subsidy policy by introducing a ranking system that measures the amount of energy that a given car is capable of saving. He suggested that vehicles with higher efficiency will receive more subsidies. Industrial analysts consider the subsidy increase to be necessary, as the promotion of new-energy vehicles is still falling short of expectations due to inadequate support. China rolled out specific measures to subsidize clean-energy cars for private buyers in 2010 to boost the sector, but sales remained lackluster due to high production costs. In 2012, sales of new-energy cars amounted to 12,791 units, almost double the number recorded in the previous year, data from the China Association of Automobile Manufacturers showed. According to the country's guideline on environmentally friendly vehicles, sales of new-energy cars are expected to total 500,000 units by the end of 2015. (Source: [China Daily](#))

### **China to extend subsidies for new energy cars**

Officials from China's auto industry are seeking to expand a subsidy program for electric cars, across 25 Chinese cities. During the on-going two sessions in Beijing, China's Minister of Industry and Information Technology, Miao Wei, announced that the subsidies for new energy cars will be extended by three years. China has started promoting new energy cars in 2009, with public transport used as a pilot zone. As of last year, there were nearly 28,000 new energy cars in 25 Chinese cities, and 80 percent of them were buses. China's Minister of Industry and Information Technology, Miao Wei noted that the central government will step up investment in clean energy cars and extend subsidies for the promotion of electric vehicles. (Source: [China Daily](#))

### **Beijing subway overtakes Moscow as busiest**

Beijing's subway lines have surpassed Moscow to become the world's busiest after a record 10.27 million passengers travelled on the city's rail transit network on Friday, Beijing Morning Post reported. Russia's subway lines used to handle the most passengers in the world, with a daily transportation of 8 to 9 million people. "We will see the number of 10 million often in the future," said Zhan Minghui, director of the capital's rail transportation command center. Four new subway lines went into operation on Dec 30, 2012 in Beijing, bringing the total track length to 442 kilometers and making it the country's longest subway network. (Source: [China Daily](#))

### **Railway reform 'a step forward', but success not guaranteed**

**3**  
**trillion yuan**  
the total amount of debt of  
the Ministry of Railways

The institutional restructuring and functional transformation plan released on Sunday has tolled the bell for the colossal Ministry of Railways, marking the end of the last ministry under the State Council that had both administrative and commercial functions. Yet, whether the reform will succeed depends on the following measures, which are still unclear, experts said. According to the plan, the ministry's administrative powers will be incorporated into the Ministry of Transport. They include planning railway development, drafting railway technical standards and supervising the railways' operation safety and construction quality. Meanwhile, the China Railway Corporation will be set up to take over the railway ministry's commercial functions, including organizing railway transportation and

construction. Wang Yiming, deputy head of the Academy of Macroeconomic Research under the National Development and Reform Commission, hailed the move a "landmark". "It means the country removes the last 'stronghold' in the way of reforming the industry from planned economy to market economy," Wang said. "It will open another door for financing and management of the railway sector." With some 2 million employees and its own police, court and procuratorate offices, the Ministry of Railways used to be called "a closed empire". It had been in the center of controversy for being both the service provider and watchdog. (Source: [China Daily](#))

#### **China's first jumbo jet to debut in 2014**

China's first jumbo jet, the C919, is expected to make its maiden flight in 2014 as planned, its chief designer told Xinhua on Monday. The design of C919's airframe has been completed and the ground tests of the jet's major equipment will start in 2013, said Wu Guanghui, the jumbo jet's chief designer and vice general manager of the Commercial Aircraft Corporation of China (COMAC), the aircraft's manufacturer. The company had overcome a lot of difficulties, including insufficient experiences and technological reserves, weak industrial foundation and fierce competition, and had made new progresses in 2012, he said. The COMAC will complete a series of technical review work and conduct over 40 wind tunnel tests in 2013, said Wu, who is in Beijing to attend the first session of the 12th National Committee of the Chinese People's Political Consultative Conference. (Source: [Xinhuanet](#))

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#### **Socioeconomic sciences and the humanities**

##### **A New Cricetid Rodent Found From the Early Oligocene of Yunnan, China**

The cricetids, including extant hamsters, constitute one of the most diverse families of rodents. The Eurasian Paleogene and early Neogene cricetid rodents are very diverse, but the phylogenetic relationships among these cricetids remain unsolved. Discovery of more specimens of these basal cricetids will help to resolve their systematic position. In an article published in *Journal of Vertebrate Paleontology* 33(1), Drs. Olivier Maridet and NI Xijun, Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences (IVPP), reported a new early Oligocene cricetid, *Paracricetops virgatoincisus*, from the Caijiachong locality in Yunnan Province, China. Their phylogenetic analysis including *Paracricetops* and other early cricetids not only asserts the systematic position of this new cricetid and illuminates the phylogenetic relationships among other cricetids, but also casts new lights on the origin and early radiation of the family Cricetidae. This new cricetid rodent was discovered at the Caijiachong mammalian fossil locality in Yunnan Province, China in 2008. The Caijiachong locality lies in the north part of the Yuezhou Basin, and is about 20 km southeast of Qujing City. (Source: [CAS](#))

##### **Ancient Xi'an restored in major project**

A massive preservation project aiming to restore the ancient layout of Xi'an will be completed by 2020 in the capital city of Shaanxi province. At the center of the project is the construction of a special relics park at the site of the ancient city of Chang'an. Work started last year and is progressing well, said Xi'an Mayor Dong Jun. "Xi'an is famous for its Terracotta Warriors, but we have much more than that," he said. "With this project, we want to restore the urban layout of Xi'an back to what it was 2,000

years ago." Chang'an, which means "perpetual peace" in classical Chinese, was an ancient capital for more than ten dynasties, and today is known as Xi'an. (Source: [China Daily](#))

### **First Discovery of Fossilized Ovaries Reveals Early Evolution of Avian Reproduction**

In an article published online March 17 in *Nature*, researchers from the Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences (IVPP), and the Shandong Tianyu Museum of Natural History described three specimens of fossil bird from the Early Cretaceous Jehol Group which preserved the remains of mature ovarian follicles in their abdominal cavity. This is the first discovery of the preserved soft tissue of reproductive organs in a fossil tetrapod. The three fossils record a wide phylogenetic bracket within Aves, preserved in one specimen of the long boney-tailed bird *Jeholornis*, the second oldest and most primitive fossil bird (after *Archaeopteryx*), and two enantiornithines – sister taxon to *Ornithuromorpha*, the group that includes living birds. Comparisons in ovarian morphology between *Jeholornis* and *Enantiornithes* reveals an evolutionary gradient from the non-avian dinosaurian condition towards that of modern birds; differences between the enantiornithines themselves indicates that this diverse clade evolved further specialization of the reproductive system in parallel to modern birds. (Source: [CAS](#))

### **Latest News China eyes fair welfare system in 2020**

China's new leaders aim to establish a "fair and unified" social security system by 2020, according to a senior lawmaker and scholar. This will meet increasing public needs for pensions and medical care, reduce the widening wealth gap and boost social cohesion, he said. Zheng Gongcheng, a deputy to the National People's Congress who has been extensively involved in the design of China's social security system for years, said a sound social safety net is an essential part of the nation's goal of setting up a prosperous society by 2020. In the draft budget plan to be voted on by NPC deputies, the government plans to spend 260 billion yuan (\$41.9 billion) this year on medicare programs, up 27.1 percent from last year. Spending on social security and employment spending would reach 655 billion yuan, up 13 percent from last year. The draft also earmarks 223 billion yuan for basic housing to improve living conditions for people on the lower rungs of society. But Zheng said the ratio of social welfare spending to total fiscal revenue has stood at 15 percent. "We are still at a very low level and need to increase this greatly and use public money smartly," he said. Zheng said this ratio compares with 40 to 50 percent in some European countries. (Source: [China Daily](#))

### **Archaeologists find earliest bronze armor pieces**

Archaeologists in Northwest China's Shaanxi province said Sunday that one piece of thigh armor and two pieces of upper-body armor dating back 3,000 years may be the oldest pieces of bronze armor ever unearthed in China. The announcement was made after experts studied the artifacts retrieved from the tomb of a nobleman from the West Zhou Dynasty (1046 BC - 771 BC) in Shigushan Mountain of Baoji city. Liu



Junshu, head of the excavation team, said the discovery filled in a blank in China's early military history, as excavations of pieces of armor forged during or prior to the Qin Dynasty (221 BC - 206 BC) have been rare. A bounty of bronze weaponry, wine vessels and other sacrificial objects were also unearthed along with the pieces of armor, suggesting that the tomb owner had been a high-ranking aristocrat and general. (Source: [China Daily](#))

### **China will not copy Western political systems: Yu**



The newly-elected leader of the Chinese People's Political Consultative Conference (CPPCC) pledged Tuesday that China will not copy Western political systems under any circumstances. "We need to steadfastly uphold the leadership of the Communist Party of China (CPC), adhere to and improve the system of multiparty cooperation and political consultation under the leadership of the CPC," said Yu Zhengsheng, chairman of the 12th National Committee of the CPPCC, the country's top political advisory body. "We need to more strictly follow the socialist path of political development with Chinese characteristics, not imitate Western political systems under any circumstances, always adhere to the correct political orientation, and strengthen the CPPCC's ideological and political foundations of collective struggle," Yu told more than 2,000 political advisors at the closing meeting of the first session of the 12th CPPCC National Committee. Yu, born in April 1945, was elected to the new post on Monday. He is also member of the Standing Committee of the Political Bureau of the CPC Central Committee. (Source: [China Daily](#))

### **Family planning policy to remain**

Official plays down speculation that restructuring plan will lead to change. There will be no change to the country's family planning policy, a public sector reform official said one day after a key government restructuring plan was unveiled. "The pressure facing residents and resources still persists in our country with such a huge population," said Wang Feng, deputy head of the State Commission Office for Public Sector Reform. The country will keep its basic state policy on family planning after the creation of a new commission through the merging of the health ministry with the National Population and Family Planning Commission, Wang told a news conference on Monday in Beijing. Following the restructuring, work in the field of family planning will be beefed up, not weakened, as implementation of the policy continues to be a chief responsibility of Party and government heads, he said. (Source: [China Daily](#))

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## **Space**

### **Ground system improves satellite navigation precision**

A ground system aimed at enhancing the navigation precision of China's homegrown BeiDou Navigation Satellite System (BDS) was approved in central China's Hubei Province on Friday. The BeiDou Ground Base Enhancement System (BGBES), a network consisting of 30 ground base stations, an operating system and a precision positioning system, was approved by the evaluation committee led by Sun Jiadong, an academician with the Chinese Academy of Sciences (CAS) and

chief designer of the BDS. The system is expected to help improve the BDS' positioning precision to 2 centimeters horizontally and 5 centimeters vertically via tri-band real-time precision positioning technology, and to 1.5 meters with the single-frequency differential navigation technology. The former technology, which is much more precise, will be used in special industries like mapping, land resources, urban construction, planning and water conservation, as well as national construction projects. The latter will be put into public use, including vehicle positioning services, said Shi Chuang, director of the global navigation satellite system research center of Wuhan University. Planned by the central government, the BGBES was built by the center and the Hubei Provincial Surveying and Mapping Bureau as a national pilot project. (Source: [Xinhua](#))

### **Spacecraft tests to pave the way for vital lunar mission**

An experimental spacecraft will be launched before 2015 to conduct crucial re-entry tests on the capsule to be used in the Chang'e-5 lunar-sample mission, a leading space program official said. Chang'e-5 is expected to be China's first lunar explorer to return to Earth. The mission will be carried out before 2020. The experimental spacecraft will consist of the Chang'e-2 lunar orbiter base structure as well as the return capsule that will be used by the Chang'e-5, said Hu Hao, chief designer of the lunar exploration program's third phase and a deputy to the National People's Congress. "Scientists believe we need to launch the spacecraft to prove that our current technical plan can actually bring Chang'e-5 home safely," Hu told China Daily on the sidelines of the NPC annual session. (Source: [China Daily](#))

### **China's fourth space launch center to be in use in two years**

China's fourth launch center, located in tropical island province of Hainan, will be ready for space launch in two years, said a member of China's top political advisory body. The launch center, which has been under construction since 2009, will be mainly used for launching synchronous satellites, heavy satellites, large space stations, and deep space probe satellites. It is designed to handle up to 10-12 rocket launches a year. China currently has three space launch bases, namely, the Jiuquan Satellite Launch Center in the desert of northwest China's Gansu Province, the nation's only manned spacecraft launch center; the Taiyuan Satellite Launch Center in north China's Shanxi Province, capable of launching satellites into both medium and low orbits; and the Xichang Satellite Launch Center, mainly to launch powerful-thrust rockets and geostationary satellites in southwest China's Sichuan Province. The three launch sites have carried out over 100 space launches, sending over 100 satellites into space. However, the three launch centers are all landlocked in western or northern plateau and mountainous regions, lack commercial development and are inconvenient for transportation. (Source: [Global Times](#))

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## **People & Higher Education**

### **Wang Enge Appointed President of Peking University**

*Wang Enge*, a physicist and member of the Chinese Academy of Sciences (CAS), was appointed President of Peking University, succeeding outgoing President ZHOU Qifeng. Graduated in theoretical physics from Liaoning University in 1982 and obtained his PhD in condensed matter physics from the PKU Physics Department in 1990, WANG, 56, has been the 17th president of the university since

1912. A researcher on surface physics, WANG's approach is a combination of atomistic simulation of nonequilibrium growth and chemical vapor deposition of light-element nanomaterials. The study primarily involves formation and decay mechanisms of surface-based novel structures. His research also covers water behaviors in confinement. He was director of the CAS Institute of Physics from 1999 to 2007, director the Beijing National Laboratory for Condensed Matter Physics from 2004 to 2009, executive vice president of the CAS Graduate University and deputy general secretary of CAS from 2008 to 2009. In 2009, WANG returned to PKU and served dean of the School of Physics and of the Graduate School until 2011, when he was appointed provost and vice president for teaching and research. He was elected member of CAS in 2007. He has been a member of the Academy of Sciences for the Developing World since 2008 and a fellow of the American Physical Society since 2006. (Source: [CAS](#))

### **New Leadership of NSFC on Duty**

The 7th term of the administration of the National Natural Science Foundation of China (NSFC) was announced on February 22, 2013. Yang Wei was appointed as President and Shen Yan, Yao Jiannian, HeMinghong, Liu Congqiang, Gao Wen, and GaoRuiping as Vice Presidents. The Leading group consists of members from universities, research institutions and NSFC, and with different academic background. (Source: [NSFC](#))

### **More Chinese overseas students return home**

A total of 272,900 Chinese students returned home after finishing their education abroad in 2012, up 46.6 percent from 2011, said a senior human resources official on Thursday. Since China's reform and opening up began in 1978, 1.09 million Chinese who studied abroad have returned home, said Yin Weimin, minister of human resources and social security, at a meeting. In recent years, there has been a greater tendency for such Chinese overseas students to return after finishing their studies. More than 800,000 have returned in the last five years, with the annual number growing by an average rate of 36 percent each year, Yin said. "China will further establish a sound system for the returnees, including visa, residence, medical care, insurance and housing," the minister vowed. The Chinese government launched a drive to recruit experts from abroad in 2008, offering favorable policies in terms of taxation, insurance, housing, settlement for spouses and children, career development, research projects and government awards. As of last year, more than 1,100 top-level experts have been recruited to work in China under the program, according to Yin. (Source: [Global Times](#))

### **English dropped from top Chinese university exams**

China's top universities began their annual independent recruitment exams on Saturday, with English no longer included among the exams' compulsory subjects. In most of these universities, those who have applied for science and engineering majors will only be required to take math and physics exams, while art students will be required to take Chinese and math exams. Yu Han, an enrollment officer at Tsinghua University, said the subject was eliminated in order to reduce students' workload and attract talented students who excel in the targeted subjects. Independent college entrance exams are held three months before the national exams, a process that allows universities to recruit more talented students. This year, 27 Chinese universities are joining three leagues represented by Tsinghua University, Peking University and Beijing Institute of Technology (BIT), with all three leagues holding recruitment exams simultaneously. The Peking University league consists of 11 universities,

including Hong Kong University and Beijing Normal University. The Tsinghua league is composed of seven universities, including the University of Science and Technology of China, Shanghai Jiao Tong University, Renmin University and Zhejiang University. The BIT league is made up of nine schools, including the Harbin Institute of Technology and Tongji University. (Source: [Global Times](#))

### **Confucius Institutes to reach 500 cities by 2020**

China's Confucius Institute Headquarters will have branches in nearly 500 large cities across the world by 2020 to promote the Chinese language and culture, the agency's head said Monday. "We are planning to expand the institute's scale and improve its quality in order to meet growing demand for the promotion of Chinese language and culture," said Xu Lin, head of the Confucius Institute Headquarters (Hanban). There are now more than 400 Confucius Institutes in over 100 countries and regions, Xu said, adding that the number will reach 500 and the number of Confucius Classrooms will be 1,000 by 2015, with 1.5 million registered students. Hanban is aimed at implementing a unified quality standard and training a number of quality teachers in order to better promote Chinese language and culture, said Xu. She said Hanban has sent about 10,000 professional teachers and volunteers to overseas Confucius institutes and classrooms, although it is currently short of both professional teachers and teaching materials. (Source: [China Daily](#))

### **From Harvard to realizing the 'Chinese dream'**

While many Chinese head overseas in search of a dream, Wang Huiyao is working in the opposite direction. The 55-year-old director of the Center for China and Globalization, and vice-chairman of the China Talent Research Society, aims to bring talent into China, whether they are returning Chinese expatriates or foreign professionals. He has been responsible for a considerable amount of research into international talent flows and has contributed to China's attempts to attract talent for the past decade. Wang is a member of the Western Returned Students' Association, a non-governmental group formed by Chinese who have studied overseas. He believed the group's knowledge of international business could be helpful to China's government in developing its position in the world economy, and in 2002 founded the WRSA Chamber of Commerce as a platform for its voice. The group, which now has around 1,000 members, holds forums and activities aimed at promoting economic cooperation and trade between China and the West. In 2008, he set up the Center for China and Globalization, with the idea of building a think tank. The center has already put forward dozens of research reports to the government on Chinese emigration, returnees from studying abroad and how to attract and keep talented individuals. It is also a platform to connect government officials, scholars, businesspeople and students from China and overseas. (Source: [China Daily](#))

### **Researchers illegally split awards**

Two former heads of a government-sponsored research body have been accused of illegally distributing national awards in Beijing, Xinhua News Agency reported on Monday. Beijing No 2 Intermediate People's Court confirmed that it had accepted the case, saying Shan Shanghua and Zhang Siyou, the two heads of China Metallurgical Industry Planning and Research Institute, were suspected of privately sharing national awards between 2005 and 2008. Prosecutors said the two were suspected of allocating awards worth more than 4 million yuan (\$643,600) in the name of the institute, Xinhua said, adding Shan got 1.66 million yuan and Zhang got 490,000 yuan. (Source: [China Daily](#))

## Research infrastructures

### Tibet to build first genetic resource bank

Southwest China's Tibet Autonomous Region will start construction on its first genetic resource bank within the year, regional authorities said. The bank will help Tibet protect its genetic resources and ensure sustainable conservation, according to the regional science and technology department. The bank will be used to preserve plant seeds, as well as DNA from animals and microorganisms. Tibet's biodiversity is abundant, but its environment is relatively fragile, said Li Hui, a researcher from the Institute of Tibetan Plateau Research under the Chinese Academy of Sciences. The bank will help to ensure the continuation of some species for further study, as well as aid in breeding research for endangered species, Li said. Tibet is home to more than 9,600 plant species, including 855 species that are unique to Tibet. The region also has 800 species of wild vertebrates, 123 of which are under national-level protection. (Source: [Xinhua.net](#))

### New subatomic particle discovered by scientists

A group of international scientists working with the Beijing Spectrometer III (BES III) announced that they may have detected a new subatomic particle. The new finding, referred to by the scientists as Zc(3900) for the time being, is likely to be a new exotic hadron, or a subatomic particle that does not fit into simple subatomic models, according to scientists working with the BES III, the main detector for the upgraded Beijing Electron-Positron Collider (BEPC II). "One of the goals for the BES III experiments is to search for new exotic hadrons that don't fit into the traditional model for quarks," said Shen Xiaoyan, spokesperson for the scientists. Almost 300 scientists from 11 nations have been taking part in the BES III experiments. (Source: [Global Times](#))

### Jiaolong sub starts scientific missions in June

Chinese manned submersible Jiaolong will officially start conducting scientific missions in June, its chief designer said on 25 March Monday. Xi Jinan, also a researcher with the China Shipbuilding Industry Corp.(CHIC), said at a speech in Shanghai that the sub will spend nearly five months conducting research each year for the following five years. In 2013, it will carry out scientific investigations of poly nodules at depths of 5,300 meters in the northeast Pacific Ocean, and gather information from sulfide mine sites in the southwest Indian Ocean. It will also penetrate unexplored areas to provide technical materials for contracts to be approved by international seabed authorities. (Source: [Global Times](#))

### A first-class hi-tech industrial development park

Approved by the State Council, China's cabinet, in 1991, the Chengdu Hi-tech Zone is one of the first State-ranked hi-tech industrial development zones, and one of six pilot zones of "The World's First-Class Technology Park Initiatives" sponsored by the Ministry of Science and Technology. With a planned area of 130 square kilometers, the zone is divided into a south and a west park. There are 29,163 companies registered in the zone. Among them nearly 1,000 are companies with investments from foreign firms, including more than 100 Fortune 500 companies, and also companies with investments by other well-known international corporations. Altogether more than 500 companies

have been certified as high-tech enterprises. The project ranks fourth among China's national hi-tech zones. The zone focuses on R&D and manufacturing of high-tech products. The microelectronics-oriented IT industry, including software, the TCM-centered bio-pharmaceutical industry, and the precision machinery manufacturing industry feature advanced technologies and are its three pillars. The zone also attaches great importance to the development of modern food processing techniques, new materials, environmental protection, scientific and technological consulting and venture capital. (Source: [China Daily](#))

### **Huairou Becomes a Part of Zhongguancun**

Huairou Park, accredited on March 7 as one of the new members of the Zhongguancun Science Park. It will focus on three sub-parks, including the Science and Education Industrial Park of Chinese Academy of Sciences, the Beijing Nanotechnology Industrial Park and the Internet Innovative Industry Park. Huairou Park covers an area of 7.11 square kilometers, with 6.6296 square kilometers located in the Yanqi Economic Development Area and 0.4851 square kilometers situated in the Chinese academy of Sciences' innovation base. The education base of the Science and Education Industrial Park of the Chinese Academy of Sciences (CAS) will be put into use this year. Additionally, 22 projects of ten CAS institutions will settle at the scientific research and transformation base. It is expected that the industrial projects can achieve some 5 billion yuan (US\$ 804 million) in revenue by 2015. The green printing technology industrialization base has also been completed. In addition, the Nanotechnology Industrial Park has signed ten projects. It is expected to earn some 12 billion yuan (US\$1.93 billion) by 2015. (Source: [CAS](#))

### **China to finish integrated mapping system by 2020**

China will build up an integrated mapping system to cover the ground, underground, sea, air and outer space by 2020, said a senior official of the national surveying and mapping authority. The system, when completed, will facilitate the country's economic development, national defense and government decision-making, Li Pengde, deputy director of the National Administration of Surveying, Mapping and Geoinformation, said in an interview late Monday. It will also provide spatial position information conducive for the government to cope with emergencies and for people to live with greater convenience. For this purpose, said Li, the system will adopt new-generation equipment and technologies, including surveying vehicles and vessels, medium- and low-altitude remote sensing mapping platforms, aerospace mapping satellites and underground measuring robots. China has made substantial progress in developing this equipment and technology, the official added. (Source: [China Daily](#))

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## **International S&T relations**

### **Agri cooperation -between China and Africa- must be 'sustainable'**

Sound and sustainable agricultural cooperation between China and African countries should be based on a win-win formula, according to a senior expert. "Besides agricultural investment and technology support, China should help more African countries develop their industrial chains in the agricultural sector as an important way to increase local farmers' income," said Jiang Heping, a professor at the Chinese Academy of Agricultural Sciences. Future agricultural cooperation between the two should

focus on improving the processing and selling of agricultural products, he said. Chinese agriculture professionals say they are attracted by the huge variety of African products, and they could provide added scope to the future development of new types of crops, he added. (Source: [China Daily](#))

### **Joint Laboratory to Map Brain Behaviour**

A research laboratory using advanced imaging techniques and computational analysis to understand brain behaviour is being established as a joint initiative between The University of Queensland (UQ) and The Institute of Automation at the Chinese Academy of Sciences (CASIA). Researchers from UQ's Queensland Brain Institute (QBI) and CASIA will work in partnership at the Sino-Australian Laboratory of Brainnetome to map brain behaviour and develop a greater understanding of how neural networks function in both diseased and normal states. Professor Tianzi Jiang, a neuroimaging researcher who has a joint appointment with UQ and CASIA, will oversee the development of the new laboratory. "Both the institutes share common interests in using neuroimaging techniques to understand brain networks and have complementary expertise and facilities in the field," Professor Jiang said. "We believe that collaborative research and scientific exchange through the establishment of a joint research laboratory will be mutually beneficial for both UQ and CASIA." Five researchers from UQ, and 12 researchers and 20 PhD students from CASIA will collaborate on research both in China and at QBI at UQ's St Lucia campus in Brisbane, Australia. (Source: [CAS](#))

### **CAS-TWAS President's Fellowship Programme Opens for Application**

CAS-TWAS President's Fellowship Programme for PhD Candidates from Developing Countries is open for application, announced the University of Chinese Academy of Sciences (UCAS) on Mar. 12, 2013. According to the program, up to 140 students/scholars per year from the developing world are sponsored to pursue four years' PhD study and research in UCAS, the University of Science and Technology of China and/or the institutes of Chinese Academy of Sciences (CAS). Deadline for this year's application is June 15, 2013. The programme is co-launched by CAS and the Academy of Sciences for the Developing World (TWAS). The CAS will be responsible for a monthly payment to cover accommodation and living expenses, while TWAS responsible for travel, visa related expenses and excess luggage fees. (Source: [CAS](#))

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### **About this newsletter**

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