RESEARCHERS IN MOTION

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EURAXESS LINKS CHINA

Dear Colleagues,

This month we bring you an update on Horizon 2020 in our **EU Insight** section. An agreement reached between the Presidency of the Council and the European Parliament on the “Horizon 2020” programme for research and innovation paves the way for the formal adoption of the "Horizon 2020" legislative package. Horizon 2020 is expected to be launched as scheduled on 1 January 2014 with the first calls possibly being launched by December 2013.

May we also draw your attention again on the 1st ***EURAXESS Science Slam*** being held in September ***2013*** which has now been launched in all EURAXESS Links countries. EURAXESS Science Slam 2013 gives young researchers the chance to showcase their research projects as well as their science communication skills to their peers and the wider public. The six winners (one by country where EURAXESS is present) will be awarded a round trip to Europe where they will attend the EURAXESS Voice of Researchers Conference this November. The official trailer of the event can now be seen both on Youku and Youtube.

We encourage Chinese and international PhD sudents and postdocs (ongoing or completed less than 2 years ago) currently based in China to take part in this exciting event. All details can be found at scienceslamchina.euraxess.org. Don’t hesitate to let peope around you know about it and we hope to see you for the slam final next 26 September at the Bridge Café in Beijing!

The **Events** section also features the programme of the “ERC Goes Global” campaign China stage from 2 to 7 September that we first announced in the previous edition of this newsletter. Six cities will be visited and 11 public presentations introducing the career- and research-boosting offered by the

European Research Council will be given. Researchers from all fields engaged in frontier research are warmly invited to attend these conferences and meet with the representatives of the ERC delegation when they visit their city.

On 6-7 September in Shanghai, the FP7 IMMUNOCAN project will hold the 1st Euro-Asian Experts Conference on Immune Biomarkers for Personalized Medicine in Oncology. Registration is currently open.

The EU-China Exhibition on Urban Development will take place on November 20-23, 2013. Registration is also currently open.

As usual, you will also find in this edition news about EU research policy as well as EU-China and EU Member States-China cooperation developments, including jointly funded programmes, sectorial match-making events and newly established joint research structures.

This month of July is certainly not the most prolix in terms of calls publication but you will still find several new ones in the **Grants & Fellowships** section. We also took the opportunity of this less busy time to remind you of and include some interesting funding schemes open to internationally mobile researchers and which are permanently open for applications.

We hope you are enjoying your Summer break and welcome you to visit our new website.

With best regards,

Jacques de Soyres

EURAXESS Links China Country Representative

About this newsletter

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

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

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

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

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1 EU Insight

Update on Horizon 2020: Agreement on the EU's next Framework Programme for Research and Innovation (2014-2020)

In the February edition of our newsletter, we featured an article focusing on "Horizon 2020" (H2020), the EU's Framework Programme for Research and Innovation covering the years 2014 to 2020. We briefly introduced the differences between the EU's current Seventh Framework Programme (FP7) and H2020, the three key objectives as well as funding for mobility, the European Research Council (ERC) and international cooperation. Within the last weeks, there have been various new developments regarding H2020 and its adoption process.

Agreement and Endorsement

In the last week of June 2013, the Presidency of the Council and the European Parliament representatives reached an informal agreement on the "Horizon 2020" programme for research and innovation. This agreement has now been endorsed by the Committee of Permanent Representatives (Coreper) on 17 July 2013. The agreement paves the way for the formal adoption of the "Horizon 2020" legislative package by the European Parliament and the Council through a vote in the coming months. Therefore, it can be expected that Horizon 2020 will be launched as planned on 1 January 2014 with the first calls possibly being launched by in December 2013 (Source: EUB-Telegramm, 19 July 2013, EU-Bureau of the German Federal Ministry for Research and Education).

The Horizon 2020 Legislative Package

The Horizon 2020 legislative package is made up of:

- a regulation establishing the Horizon 2020 framework programme,
- a decision establishing the specific programme laying down the implementation modalities of Horizon 2020,
- a regulation laying down the rules for participation and the dissemination of results, and
- two proposals on the European Institute of Innovation and Technology (EIT): an amending regulation and a decision setting out its strategic innovation agenda, which includes the priority fields for the new Knowledge and Innovation Communities (KIC's).

Infobox: The Permanent Representatives Committee

The Permanent Representatives Committee or Coreper (Article 240 of the Treaty on the Functioning of the European Union – TFEU) is responsible for preparing the work of the Council of the European Union. It consists of representatives from the Member States with the rank of Member States' ambassadors to the European Union and is chaired by the Member State which holds the Council Presidency. (Source: European Union, Legislation Summary, Glossary)

Moreover, it includes a separate regulation on the Euratom (European Atomic Energy Community) programme (2014-2018), which supplements Horizon 2020 for research activities in the fields of nuclear energy and radiation protection. This draft regulation is currently under examination.

Budget

Horizon 2020 will replace the EU's 7th Research Framework Programme (FP7), which was launched in 2007 and runs until the end of 2013. Compared with FP7, the new programme is expected to further eliminate fragmentation in the fields of scientific research and innovation.

With a budget of around 70 billion euros, Horizon 2020 is the world's largest research programme. The previous multi-annual programme FP7 had a financial allocation of 53 billion euros. H2020 will underpin the objectives of the Europe 2020 strategy for growth and jobs, as well as the goal of strengthening the scientific and technological bases by contributing to achieving a European Research Area in which researchers, scientific knowledge and technology circulate freely.

The budget distribution is envisioned as follows:

I. Excellent Science:	**31.73 %**
1. European Research Council	17.00
2. Future and Emerging Technologies	3.50
3. Marie Curie actions	8.00
4. Research infrastructures	3.23
II. Industrial Leadership:	**22.09 %**
1. Leadership in enabling and industrial technologies	17.60
2. Access to risk finance	3.69
3. Innovative small and medium-size enterprises	0.80
III. Societal Challenges:	**38.53 %**
1. Health, demographic change and wellbeing	9.70
2. Food quality and marine research	5.00
3. Energy	7.70
4. Transport	8.23
5. Climate action, resources and raw materials	4.00
6. Inclusive societies	1.70
7. Secure societies	2.20
Spreading excellence and widening participation	**1.06 %**
Science with and for society	**0.60 %**
European Institute of Innovation and Technology (EIT)	**3.52 %**
Joint Research Centre: non-nuclear direct actions	**2.47 %**
Total	**100 %**

Source: Council of the European Union, Press Release, 17 July 2013

Horizon 2020 in Social Media

To receive more information and updates on Horizon 2020 you can visit the EU's dedicated Horizon 2020 homepage or the dedicated Innovation Union Facebook page of the European Commission.

Sources and further information

1) Council of the European Union, Press Release: "Agreement on "HORIZO 2020": the EU's research and innovation programme for the years 2014 to 2020", Brussels, 17 July 2013 (main source).
2) EU-Bureau of the German Federal Ministry for Research and Education, Special Announcement (in German), EUB-Telegramm, 19 July 2013, Bonn.

2 EURAXESS Links Activities

EURAXESS Science Slam China *2013* Calendar:

- **29 June: Launch of the Pre-Selection Phase (via on-line video posting)**
- **10 September: Closing of the Pre-Selection Phase**
- **20 September: Publication of the 6 finalists' list**
- **26 September: EURAXESS Science Slam China *2013* Final (Beijing)**

EURAXESS Science Slam Official Trailer Released!

We invite you to visit the EURAXESS Science Slam China website now featuring all the information and the latest news regarding the EURAXESS Science Slam and how to take part. The event's new flyer can also be downloaded from this webpage.

The official EURAXESS Science Slam Trailer can be watched via both YouKu and YouTube.

Application period to take part in the slam final on 26 September in Beijing will remain open **until 10 September**.

Download the flyer of the EURAXESS Science Slam China Final here.

EURAXESS Science Slam China is organized in collaboration with ThinkINChina and Understanding Science.

EURAXESS Links is now on LinkedIn!

The network is now present on LinkedIn where it launched a group entitled EURAXESS Links – Internationally Mobile Researchers. Directed to internationally mobile researchers, it provides a platform for information and dialogue amongst its members. The network already has more than 410 members. Join us now! For more specific discussions regarding EURAXESS Links China don't hesitate to join our China Subgroup!

New EURAXESS website launched

A new version of the EURAXESS portal has been launched in July. The new EURAXESS Links China website offers easier access to up-to-date information, increased possibilities to share information on the social networks and a user-friendlier environment. Check it out now and feel free to submit information for posting by writing to china@euraxess.net at any time.

3 News & Developments

3.1 EU & Multilateral Cooperation

UK, China and Switzerland collaborate on climate change project

On 1 July, the Adapting to Climate Change in China (ACCC) project brought together almost 150 policymakers, legislators and representatives of multilateral agencies from around the developing world for a landmark, three-day conference to explore how responses to climate change can and need to be an integral part of national development planning.

Although the global picture is clear, few countries and provinces have a precise assessment of how climate change will affect them and what they can do about it. ACCC, an innovative, four-year policy research initiative, investigated ways China could better understand these risks and response options.

The project was a joint Chinese-UK-Swiss effort, connecting British, Chinese and international experts in interdisciplinary teams to develop and share ways that China can make climate change adaptation a mainstreamed part of the development process. It showed how evidence and a clear understanding of risks and vulnerabilities are an essential foundation for any decision on what to do next.

As well as working at the national level, the project identified and analysed the most important climate change impacts in three pilot provinces - Inner Mongolia, Ningxia and Guangdong - and how they will interact with provincial development priorities.

The conference gave the opportunity to decision-makers from more than 35 countries in the global South of getting a first-hand report on the results of the ACCC project and China's growing expertise in adaptation policy. It also explores the opportunities for international and regional co-operation on the issue and how legislation can be used to deal with the impacts from climate change.

Further details in source: UK Gov.

URBACHINA Project 3rd International Conference held on 3-5 June in Kunming

The partners of the URBACHINA project, funded through the Socio-economic sciences and Humanities theme of FP7, met in Kunming on June 3-5 for the third plenary project conference, hosted by the University of Yunnan.

The meeting was an opportunity for researchers to present the progress of their work under the four main topics, including: institutional foundations and policies of urbanization in China, territorial expansion of Chinese cities, infrastructures and services for sustainable urbanization and the building of urban communities. The conference and the field visits organized in the Kunming area also provided a forum for debate and exchanges on urbanization issues with policy makers and other stakeholders.

Prior to the conference, a large delegation of URBACHINA partners attended the EU-China Urbanization Workshop Towards Innovative Joint Solutions for Common Urbanization Challenges. Jointly organized in Foshan by the China Center for Urban Development and the European Commission Directorate-General for Research and Innovation, this workshop allowed sharing expertise and vision on sustainable urban development and planning.

Lear more on the URBACHINA website.

OpenChina-ICT Workshop on Smart & Sustainable Cities held on 31 May in Guangzhou

This event was organised by the FP7 OpenChina-ICT project in collaboration with DG Information Society together with the Chinese Ministry of Industry and Information Technology and the Chinese Ministry of Science and Technology.

The contributions of more than 70 policy and research stakeholders from Europe and China specialized on ICT aspects of Smart and Sustainable Cities, illustrated the importance given to ICT on both sides, and their willingness to join efforts for mutual benefit in long-term collaboration in ICT research. The practical output of this event will help feed the "EU- China ICT Cooperation Plan" whose objective is to identify topics of mutual interest for joint ICT research, and to give recommendations to policy makers on how best to strengthen Sino-European collaboration on research and innovation.

Further details on the OpenChina-ICT website.

The second OpenChina-ICT Workshop will take place on 23 August 2013, in Beijing. To learn more and to register to this event, visit the OpenChina-ICT project website.

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

EC2 met EU SMEs and international players of the clean energy sector at Clean Energy Expo China 2013

From 3rd to 5th July 2013, the Europe-China Clean Energy Center (EC2) participated in Clean Energy Expo China 2013 at the China National Convention Center in Beijing. The event, combining an exhibition and series of conferences, was organised by the China Electricity Council, Koelnmesse, the China Council for the Promotion of International Trade and CCPIT Beijing. EC2 was located in the EU Pavilion, together with other EU projects as well as EU SMEs.

During the event, EC2 had the opportunity to introduce its main objectives, focus areas and activities to the visitors. In particular, the experts and representatives of clean energy organisations, research institutes, equipment manufactures and investment organisations who visited EC2 during the show, expressed interests for Centre's initiatives such as the EURUMQI Demo Zone and the EC2 Clean Energy Alliance membership programme.

Further details in source: EC2

2013 Chinese Training Program for EU officials launched

2013 Chinese Training Program for EU officials was launched at Beijing Foreign Studies University (BFSU) on July 21. 30 EU officials came to attend the one-week training in Beijing and Xi'an. Ms. Zhang Xiuqin, Director-General of the Department of International Cooperation and Exchanges of the Education Ministry, made a speech at the opening ceremony. She made a brief introduction about the program. Over the past decade, China and the EU have witnessed increasingly close cooperation on education, training, culture, research, youth and multilingualism. The training program has arranged a lot of activities for the EU officials, such as lectures covering the Chinese culture, economy, science & technology and education, and there will also be some visits to China's state organs, education agencies and media organizations. Moreover, tours to the scenic spots and historical sites are also on agenda to help them experience a real China.

Read more in source: People

EU and industry join forces to invest €22 billion in Research and Innovation

The European Commission, EU Member States and European industry will invest more than €22 billion over the next seven years in innovation for sectors that deliver high quality jobs. Most of the investment will go to five public-private partnerships in innovative medicines, aeronautics, bio-based industries, fuel cells and hydrogen, and electronics.

For more information click here.

European Innovation Partnership on Active & Healthy Ageing: 32 Star Cities and Regions Across Europe Rewarded for their Innovative Ideas

Star cities and regions have been rewarded for putting innovative ideas into practice to help older people.

Award-winners have been implementing innovative technological, social or organisational solutions to enhance the efficiency of health and social care systems, and foster innovation and economic growth.

"Reference sites" from 12 EU countries received their diplomas at a ceremony hosted by Neelie Kroes, European Commission Vice-President for the Digital Agenda and Paola Testori Coggi, Director General for Health and Consumers.

Read the press release.

Erasmus to expand programme after record figures

Expansion is in the pipeline for Erasmus, the European Union's higher education exchange programme. Since its launch in 1987, more than three million students have benefited from the system, which supports cooperation between 33 countries.

In a press release last week, new statistics unveiled by Erasmus covering the 2011-12 academic year reveal that the programme also enabled a record 250,000 students to spend part of their higher education studies abroad or to take up jobs with foreign companies to boost their employability.

More than 46,500 academic and administrative staff also received support from Erasmus to teach or train abroad.

The Irish presidency, in announcing that it had secured agreement on the expanded programme, Erasmus+, among EU member states and with the European parliament, said even more students would benefit over the next seven years.

Apart from its core focus on education, training and youth, for the first time the programme *(currently known as **Erasmus for All**)* would also include sport. The initiative, to be launched in January 2014, has a budget of €14.5 billion (US$18.9 billion) for 2014-20 – 40% more than funding for the current education and training mobility programmes.

Training and education would receive 70% of the funding, while the youth sector would receive 10%. Slightly less than 2% would be channelled into the sports sector, which would focus, particularly, on cooperation and activities in grassroots sport.

Ruth Sinclair-Jones, head of EU programmes and national agency director at the British Council, said: "Erasmus+ aims to reach almost double the numbers who currently receive support for education and training opportunities."

Source: University World News

Earth-Shaking Austrian-Norwegian Partnership: How Enterprise Europe Network (EEN) helps connecting public research and industry

Thanks to the Enterprise Europe Network's in-depth knowledge of EU-funded projects, an Austrian research centre seeking partners for a geo-monitoring project found a Norwegian company specialised in survey systems and solutions.

Now, with seven partners across the EU, the consortium aims to come up with a high-performance and cost-efficient long-range monitoring instrument by December 2013.

The Enterprise Europe Network helps companies take part in EU-funded research projects by identifying needs and connecting them with the right partners. Gerhard Paar, project manager at the Joanneum Research Institute for Information and Communication Technologies in Graz, Austria, was looking for partners to submit a Seventh Research Framework Programme (FP7) project to design a novel sensing measurement and analysis system. The market is huge because such instruments cover landslides, rockslides and avalanches as well as the construction of bridges, hydro-power dams and large buildings. "We published a partner search profile on our network and were soon contacted by a Network member in Norway," says Gabriele Schmied, project manager at Network partner Steirische Wirtschaftsförderungsgesellschaft mbH in Graz. Christian Quale, an adviser at Network partner IRIS - the International Research Institute of Stavanger - suggested that Cautus Geo based in Lier, near Oslo, could be a perfect partner as they specialise in surveying for safety. This turned out to be suitable for both parties. "The partner search was carried out highly efficiently," says Paar, "and Cautus Geo is now the partner with the highest share in the project." Lars Krangnes of Cautus Geo agrees: "We had little knowledge of specific research projects. We got involved thanks to Christian at Enterprise Europe Network."

Source: Enterprise Europe Network

EU-funded Projects Bring ICT-Enabled Research Results to Market

Over the years, exciting EU-funded projects in a variety of areas have managed to deliver top-notch results. From new technologies that help promote sustainable development to tools and systems for ensuring security and diversity of energy supply, EU research has made great strides in all the right directions.

But while the value of this research is not in question, there are many cases where interesting technological results have not translated into performance in the marketplace.

In this context, The EU-funded GENESYS project ('Good practices for European developers of advanced ICT-enabled energy-efficiency systems') has collected and analysed research results on efficiency and energy management systems (EMS), with a view to identifying new opportunities for the integration of these results into real operational systems, or for applications in other cross-cutting areas.

One of the project's main focuses has been on finding ways to reduce the environmental impact of urban activities, at both city and global levels. To do this, it has looked for new ways to integrate promising technologies from

research and state-of-the-art information and communications technologies (ICT).

'Smart' systems based on ICT are already being put in place in many of today's leading-edge cities. These systems can be used to optimise the management of urban infrastructure and natural resources, maximising energy efficiency and the use of renewables, and enabling better planning of water, transport, and land use.

Led by Italy's INNOVA, the GENESYS team carried out an in-depth analysis of the technical and scientific results of a large number of completed EMS-related research projects. It then undertook the further development of specific technologies that could potentially meet specific market requirements within an integrated ICT-based system.

Research and industrial partners explored potential synergies between the two communities and considered ways to exploit technologies and identify shared goals in EMS-related fields.

One of the key outcomes of all of this work has been a new set of guidelines for economically sustainable industrialisation of R&D results. In addition, partners have outlined the steps needed to ensure that future research results are tied as closely as possible to real market needs.

Finally, GENESYS has made a significant effort to help certain identified technologies find access to private capital and other financial support, to enable effective market exploitation.

This work has gone a long way towards making EU technology-related R&D more impactful, by showing how to make new technologies more adaptive and responsive to real needs, specifically in the field of EMS.

Source: European Commission

Report identifies 8 developing countries as the most efficient innovators

An annual report, published by the World Intellectual Property Organization (WIPO), Cornell University in the US and global business school INSEAD, has identified developing countries as the most efficient innovators achieving results in areas such as scientific research, infrastructure and technology production with relatively low inputs. The report analyses the inputs — elements of the national economy that enable innovative activities — and innovation outputs of 142 national innovation systems based on seven indicators. By measuring the ratio between innovation inputs and outputs on these indicators, the index found that eight developing nations — Mali, Guinea, Swaziland, Indonesia, Nigeria, Kuwait, Costa Rica and Venezuela — are among the top ten most efficient innovators. This is up from four developing nations last year.

Read the full article here.

3.2 EU Member States*, China & Bilateral Cooperation

China – NSFC releases list of eligible candidates to its International Young Scientists Fellowship 2013 2nd call

The list features 43 candidates including 19 Europeans. The applicants and their recommending institutions now have until 10 August to submit their official funding applications. The projects eventually selected for funding will start on 1 January 2014.

China - Chinese S&T park unveils in Munich

Zibo Hanhai Munich Science and Technology Park unveiled in Munich on Thursday, marking the first Chinese S&T park in the southern German city. The 3,508 square-meter park lies adjacent to Munich downtown and Munich International Airport. It will provide good-quality physical space, favorable policy, funding support and world-class advanced manufacturing technology service platform including labs and instruments. The S&T park aims to build an international advanced manufacturing science and technology collaboration platform for Chinese and German partners, Zhuang Ming, deputy mayor of Zibo City in east China's Shandong Province, said at the opening ceremony. (source: Global Times)

Denmark - The Chinese Ministry of Agriculture heads for Denmark to discuss further cooperation on food security and safety

Delegates from the Chinese Ministry of Agriculture met with the Danish Ministry of Food, Agriculture and Fisheries for the second time within two months, this time in Copenhagen.

With the aim to further deepen the cooperation within sustainable pig production and organic production, the Chinese delegation from the Ministry of Agriculture visited Denmark from June 29 to July 3. The topics of the visits were food security and food safety, which are becoming even more important in China.

The Chinese delegation met with the Deputy Director General Karsten Biering Nielsen and a Senior Advisor from the Danish AgriFish Agency, where the entire Danish pig production chain from “breeding to eating” was introduced underlining the efficient and sustainable pig production in Denmark.

Another issue that was debated was on food safety, where Denmark has a very trusted certification system with a single certifying body.

* Including countries associated with the 7th Framework Programme.

Further details in source: Denmark in China

Professor Mr Uffe Haagerup and President of East China Normal University Mr Dr. Qun Chen at the award ceremony.

Denmark - Danish scientist receives top award in China

On June 24 the Danish scientist and professor Mr Uffe Haagerup from University of Copenhagen was awarded the Honorary Doctoral Degree of the People's Republic of China. The award was given for his contribution to pure mathematics and especially the operator algebra. The celebration took place at East China Normal University in Shanghai.

Among other notable recipients of the award are Nelson Mandela, Jimmy Carter, Noam Chomsky, Bill Gates and Ban Ki-moon.

The Honorary Doctoral Degree of the People's Republic of China is a rare award that was set up in 1983. The Academic Degree Board of the State Council of China has awarded 277 honorary degrees in the past 30 years after receiving nominations from a short list of universities.

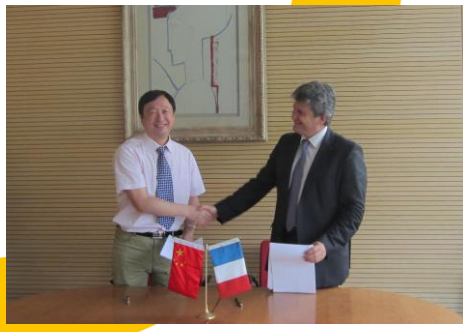
Further details in source: Denmark in China

France – New S&T cooperation launched between the cities of Bordeaux and Wuhan in the field of sustainable urban development

A memorandum of understanding has been signed on 12 July in Wuhan to implement exchanges ands transfers of expertise between the Low-carbon economy and technologies research centre of Hubei University of Technology (HBUT) and the low-carbon cities and buildings research centre of the Huazhong University of Science and Technology (HUST) on the Chinese side, and the University Bordeaux 1, the Mechanics and Engineering Institute of Bordeaux and the Technical Resources Centre of Aquitaine (called 'NOBATEK') on the French side.

The areas covered by this new cooperation will include energetic efficiency, low-carbon economy and implementation of innovative technologies.

Further details in source: La France en Chine



France - CAS, CEA Establish Associated Laboratory for Long Pulse Tokamaks

The Chinese Academy of Sciences (CAS) and the Commission of Atomic Energy (CEA, France) established an Associated Laboratory (AL) in fusion field to develop cooperation on long pulse tokamaks, EAST and WEST on July 3, 2013. The agreement of the creation of AL was signed by Prof. LI Jiangang, director of Institute of Plasma Physics, Chinese Academy of Sciences (ASIPP) and Dr. Gabriele FIONI, director of the Physics Science Division, CEA in French Embassy in Beijing. According to the agreement, two parties create an associated laboratory of non-legal entity in order to develop cooperation on long

pulse tokamaks: WEST (W environment for steady state tokamak) of CEA and EAST of ASIPP, particularly in the fields of actively cooled metallic plasma facing components, long duration plasma operation in actively cooled metallic environment, long pulse heating and current drive, ITER technology support and preparing ITER generation in the above mentioned areas. Dr. Xavier LITAUDON and Dr. SONG Yuntao from both sides are appointed as the AL co-directors.

Source: CAS

Germany – Two Chinese scientists among the recipients of the Helmholtz International Fellow Awards 2013

13 researchers and science managers from the entire world received the prestigious Helmholtz International Fellow Award from the Helmholtz Association this year. This award acknowldeges both exceptional research contributions and the initation of new collaborations with research structures outside of Germany.

Two Chinese scientists are among this year's awardees:

- Prof. Chen Hesheng, Director of the Beijing Electron Positron Collider National Laboratory (IHEP), Institute of High Energy Physics, Chinese Academy of Sciences (CAS). He has been nominated by the German Electron-Synchrotron DESY.
- Prof. Yu Yuehui, Vice-Director of the Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences (CAS). He has been nominated by the Research Centre Jülich.

In addition to a 20 000 euros money prize, the awardees receive also an invitation for research stays in one or several Helmholtz centres.

In order to be nominated, candidates need to be recommended by a Helmholtz centre active in the same research field as the candidate.

The forthcoming deadline to submit nominations for the next selection meeting scheduled on 19 November 2013, is **7 October 2013.**

Read more on the Helmholtz Association website.

Israel – Projects jointly funded by NSFC and ISF selected

The National Natural Science Foundation of China (NSFC) and the Israel Science Foundation (ISF) selected 12 Israelo-Chinese projects for joint funding out of 85 applications.

The 12 projects in the fields of materials science, chemistry and agriculture will start in October 2013 for a period of 3 years until September 2016. On the Chinese side, each project will receive 2 million RMB from the NSFC.

Netherlands - Evaluating New New Towns: Shenzhen and Almere

On June 21st the Dutch International New Town Institute (INTI) presented and evaluated the results of its "New New Towns. Why we need to rethink the city of

tomorrow today" multidisciplinary research programme by means of a comprehensive public forum.

Together with INTI's partner, the city of Almere, the forum celebrated one year of successful activities in Shenzhen which have included a number of student workshops and professional exchanges.

Taking place at the new Shenzhen Centre for Design, design professionals and tutors elaborated on the city's strengths and proposed extraordinary alternative models for urban planning and concepts for economic growth. Included in the discussion was Almere's mayor Annemarie Jorritsma, who shared her views on the future of Almere, one of the Netherlands' newest new towns, focusing on how to make cities greener.

At the conclusion of the conference, an agreement was signed between the City of Almere and the City of Shenzhen to establish future cooperation in the field of sustainable urban development.

Further details in source: Dutch Embassy

Netherlands - Dutch firm to set up China Fund to help European biotech industry

Life Science Partners (LSP), a Dutch venture capital firm, announced on Tuesday that it will establish a China Fund, which will raise money in China and to be used to assist the development of the European biotechnology market. According to LSP, it will also sell European biotech company's technology to Chinese companies in the same industry. It is reported that this is the first time LSP will raise funds in China. As European institutional investors tend to invest less in risky industries such as life sciences because of strict capital requirements, European biotech companies lack money for research and development of new products. Chinese biotech companies and research centers on the other hand have great need for European knowledge and expertise to accelerate the development of their products. LSP founder and managing partner Martin Kleijwegt said he believes the LSP China Fund is a "great business model." "We will use the classical model of venture investment focusing on China's academic centers, and make European biotechnology patents available for Chinese life science companies," Kleijwegt said. Managing 800 million euros of assets, LSP is the largest provider of venture capital in 'life sciences' in Europe.

Further details in source: Xinhua net

4 Grants & Fellowships

4.1 Call announcements for international researchers

Austria - Institute of Science and Technology, ISTFELLOW

The Institute of Science and Technology (IST) Austria in Vienna has set up a programme for exceptional postdoctoral researchers partially funded by the European Union, ISTFELLOW. The programme will fund 40 fellows for a period of two years each. ISTFELLOW is open to qualified applicants from all over the world who are interested in spending the postdoctoral stage of their scientific research career at IST Austria.

As the research portfolio of the Institute continues to branch out into other areas in the coming years, including physics, chemistry, and mathematics, so will the ISTFELLOW programme. ISTFELLOW will give preference to scientists who have a strong interest in cross-disciplinary approaches.

Applications will be accepted at any time, but fellows will be selected twice a year in October and April. The deadlines for each selection are the 15th of September and March. Applicants must have the support of one or more members of the IST Austria faculty who will host them in their research group.

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

Further information available at ISTFELLOW.

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

These two programmes *(the one with CAS alreay advertised in the previous edition of this newsletter)* foresee the joint Sino-French funding of missions and hosting costs of French and Chinese researchers in the framework of joint research projects. The programmes fund stays of minimum one week and up to one month duration. Projects can benefit from this programme for a maximum duration of one year, non-renewable.

The call was launched on 17 June and will close on **17 September, 2013**. The results will be announced around mind-January next year.

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

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

This grant, also open to graduate students for complementary and in-depth studies, can be applied to by PhD students and post-doctoral young researchers from all fields of research.

It is usually awarded for a period of one academic year to conduct research in an institution outside of Germany. This length can be extended under certain cicumstances, for example if the recipient is following an 18- or 24-month programme abroad.

The application calendar varies depending on the country or region targeted for the stay abroad.

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

Further details available on the DAAD website.

Germany - Humboldt Fellowships

The German Humboldt Foundation offers a number of fellowships and awards for researchers at different stages in their careers. Applications for the following programmes can be made at any time:

- Humboldt Research Fellowship for Postdoctoral Researchers:

  The fellowship is open to researchers from abroad with above average qualifications who are at the beginning of their academic career and who have completed their doctorate in the last four years. A Humboldt Research Fellowship for postdoctoral researchers allows for carrying out a long-term research project (6-24 months) that is selected by the fellows in cooperation with an academic host at a research institution in Germany.

  Further information: Humboldt Fellowships for Postdocs

- Humboldt Research Fellowship for Experienced Researchers

  For researchers from abroad with above average qualifications who completed their doctorate less than twelve years ago and work at least at the level of Assistant Professor or Junior Research Group Leader or have a record of several years of independent academic work. A Humboldt Research Fellowship for experienced researchers allows for carrying out a long-term research project (6-18 months) that is selected by the fellow in cooperation with an academic host at a research institution in Germany.

  Further information: Humboldt Fellowship for Experienced Researchers

- Georg Forster Research Fellowship for Postdoctoral Researchers

Open to researchers from developing countries with above average qualifications who are at the beginning of their academic career and who have completed their doctorate in the last four years. A Georg Forster Research Fellowship for postdoctoral researchers allows for carrying out a long-term research project (6−24 months) selected by the fellow in cooperation with an academic host at a research institution in Germany.

Further information: Georg Forster Research Fellowship for Postdoctoral Researchers

Ireland - President of Ireland Young Researcher Award (PIYRA)

The President of Ireland Young Researcher Award (PIYRA) is Science Foundation Ireland's most prestigious award to recruit young researchers currently based around the world to carry out their research in third level institutions in Ireland.

Awardees will be selected on the basis of exceptional accomplishments in science and engineering that underpin **Biotechnology, Information and Communications technology, and Energy**, and on the basis of creative research plans that are built on work that has attracted international attention. The programme also intends to encourage entrepreneurial efforts that couple the Research Body and Irish-based industry in appropriate ways.

Funding is provided for a period of 5 years and up to €1,000,000 of total value (inclusive of the host institution contribution) in direct costs. The PIYRA award may be used to make a contribution up to a maximum of 50% towards the salary of the successful candidate. The remainder of the salary is to be provided by the Host Institution.

Applicants must have been awarded PhD or MD within the last eight years and have completed a minimum of 36 months active post-doctoral research.

This programme has adopted a rolling call mechanism and applications **can be submitted at any time**.

Further details can be found on the SFI website.

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

The Italian National Research Council (CNR) and the Chinese Academy of Sciences (CAS) are calling for 3-years projects proposals to start on 1 January 2014.

The proposals will be jointly evaluated by the CNR and the CAS and the results published in December this year. Based on the agreement between both agencies 10 projects will be selected and staff exchanges within these projects will be supported.

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

Further details available on the CNR website and on the CAS website.

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

The Italian National Research Council (CNR) and the Chinese Academy of Social Sciences (CASS) are calling for 3-years projects proposals to start on 1 January 2014 in the following areas: political science, law, history, philosophy, economics, sociology and international studies.

The proposals will be jointly evaluated by the CNR and the CASS and the results published in December this year. Based on the agreement between both agencies staff exchanges costs as well as part of the research costs within these projects will be supported.

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

Further details available on the CNR website.

Sweden – Swedish Research Council International Postdoc programme

The purpose of this grant is to give researchers who have recently been awarded a doctorate from a Swedish university the opportunity to conduct research abroad in the following fields: **Humanities and Social Sciences, Research Infrastructure, Medicine and Health, Natural and Engineering Sciences, Educational Sciences, Artistic Research and Development**.

Individual researchers with a doctorate from a Swedish university or from the European University Institute (EUI) may apply for an International Postdoc. In order to apply for an International Postdoc, your PhD must have been awarded no earlier than 1 July, 2011, and no later than the closing date for this call.

The grant period is 18–36 months and must be started in the first half of 2014. At least two-thirds of the grant time must be spent abroad. However, this time may be divided up into several shorter periods.

The amount of the grant is SEK 1,050,000 per year, of which SEK 900,000 is salary costs, and SEK 150,000 is meant to cover research costs.

As the recipient of the grant, you must be employed by a Swedish university or higher education institution (which is also the administrating organisation).

Deadline for application is **27 August, 2013**.

Find out more on the Swedish Research Council website.

Sweden - Grants for Distinguished Young Researchers and for Distinguished Professors

The purpose of the programme is to fund positions and research financing for the very most distinguished young researchers six to twelve years after completion of their doctorates.

You apply for the grant as an individual researcher. You must also be the scientific responsible of the grant. You must have a Swedish doctoral degree or an equivalent degree from abroad but the grant is to be administered by a Swedish higher-education institution or some other Swedish public organization

For Distinguished Young Researchers, funding is granted for six years, starting in 2013, and the amount of the grant is set at SEK 3 million per year, including indirect costs. For Disinguished Professors, funding is granted for ten years, starting in 2014 and the amount of the grant is set at SEK 5 million per year, including indirect costs.

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

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

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

The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas) and The Swedish International Development Cooperation Agency (Sida) invite applications on novel research projects within the social and humanistic sciences as well as the natural sciences that address sustainability issues in the fields of natural resource use and governance, increased agricultural production, and environmental management in low-income countries. The overall intention is to contribute to development of new knowledge that will support global sustainable development, and to promote capacity building long-term cooperation between Swedish researchers and researchers in low-income countries.

A project can last for four years and should aim to promote the mobility of young researchers (maximum eight years since doctoral degree award) in Sweden.

The programme will start January 2014 and 8 million SEK/year will be available for four years, with Formas and Sida contributing equal shares.

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

Further information is available on the Formas 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 **9 October, 2013**.

More details available on the SNSF website.

4.2 Calls still open

Calls first announced in previous editions of the newsletter

EU – EMBO Long-Term Fellowships

The next deadline to submit applications is **15 August, 2013**.

Further details about this call can be found on the EMBO website.

Austria – Marietta Blau Grant

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

Further information available on the Oead website.

Switzerland - Swiss National Science Foundation Doc.Mobility fellowships

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

Further details are available on the SNSF website.

Switzerland - Swiss National Science Foundation Early Postdoc.Mobility fellowships

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

Further details are available on the SNSF website.

EU – CERN Fellowship and GET Programmes

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

Visit the CERN website to learn more about this call, the eligibility requirements and funding offered.

Netherlands - Rubicon

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

Further details can be found on the NWO website.

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

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

Further details available on the Danish Ministry of Science, Innovation and Higher Education website.

Luxembourg – AFR Postdoc Grants

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

Learn more on the FNR website.

Sweden - STINT Initiation Grants

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

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

EU – Programme for Collaborative Diabetes Research between China and Europe

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

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

Germany - German Chancellor Fellowships for Prospective Leaders

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

More details available on the Alexander von Humboldt Foundation website.

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

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

Luxembourg – AFR PhD. Grants

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

Learn more on the FNR website.

France - "Shanghai Attractivité 2013" programme at Shanghai Institut Pasteur

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

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

France - EFEO Field Scholarships

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

Further details can be found on the EFEO website.

EU – ESF Research Conferences 2013 call

The application period closing date is **1 October, 2013**. Visit the ESF website to learn more.

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

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

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

Further details available on the Danish Ministry of Science, Innovation and Higher Education website.

4.3 Open calls under FP7 and Euratom

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

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

The following calls for proposals are currently open under the People programme :

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

The following calls are open under the Cooperation programme

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

The following call is open under the Capacities programme

Support for the coherent development of research policies / **1** open call

5 Jobs

Austria - Researcher / PhD student in the field of polymer physics and chemistry

The Polymer Competence Center Leoben GmbH (PCCL) is a cooperative, non-university research organisation in the field of polymer science and engineering. PCCL has its headquarters in Leoben, and branches in [...] 23/07/2013 - 09:48 | **Country:** Austria | **Organisation:** Upper Austrian Research GmbH | **Research field:** Chemistry, Physics | **Application deadline:** 06/09/2013 | **Nr. of offers:** 1

Access full announcement

Poland - Professor at the Faculty of Fire Safety Engineering

The Main School of FIre Service 23/07/2013 - 09:44 | **Country:** Poland | **Organisation:** The Main School of Fire Service | **Research field:** Environmental science | **Application deadline:** 16/08/2013 | **Nr. of offers:** 1

Access full announcement

Spain - Postdoctoral Position in Solid Oxide Fuel Cells Job

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

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

- 5 doctoral positions - 2 senior researcher positions

Further information on the JRC website.

PostDoc Position in the Nanoionics and Fuel Cells Group The Nanoionics and Fuel Cells Group at the Advanced Materials for Energy Area of IREC is seeking for postdoctoral-level researchers to work [...] 23/07/2013 - 08:38 | **Country:** Spain | **Organisation:** Catalonia Institute for Energy Research | **Research field:** Physics | **Application deadline:** 15/08/2013 | **Nr. of offers:** 1

Access full announcement

Greece - Social Anthropologist

Case study: research on voluntary associations aiming at helping others.Funded by E.U. and Greece for "Thalis:Forms of public sociality in 20th century urban Greece: associations, networks of social intervention and [...] 23/07/2013 - 07:50 | **Country:** Greece | **Organisation:** University of Crete | **Research field:** Anthropology | **Application deadline:** 30/08/2013 | **Nr. of offers:** 1

Access full announcement

Access more than 9800 other research jobs and fellowships announcements on the EURAXESS Jobs portal.

6 Events

6.1 EURAXESS Links China

EURAXESS Science Slam China Finals – 26 September, 2013, Beijing

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

See the Finals flyer for details about the finals. Registration to attend the event will open soon.

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

Deadline to enter pre-selection phase and submit online video: **10 September 2013**

6.2 EURAXESS Links China Recommends

ERC Goes Global awareness raising campaign comes to China, 2-7 September 2013 – VISIT PROGRAMME

During the "ERC Goes Global" China tour first announced in last month's edition, the ERC delegation headed by the ERC Executive Agency Secretary General Prof. Donald B. Dingwell and accompanied by the EU Delegation to China (and EURAXESS Links China in Beijing, Wuhan and Xian), will visit Chinese universities and give presentations on the ERC's grant schemes and initiatives. Detailed programmes on campus are under preparation with the universities to be visited. An outline of the ERC visit programme is planned as follows:

2 September (Monday)

08.30 – 10.30 Peking University

10.45 – 12.30 Tsinghua University

15.30 – 17.30 China Agricultural University

3 September (Tuesday)

13.00 – 15.00 Shanghai Jiao Tong University

16.00 – 18.00 Fudan University

4 September (Wednesday)

13.30 – 15.30 Zhejiang University

5 September (Thursday)

09.30 – 11.30 Wuhan University

14.00 – 16.00 Huazhong University of S&T

6 September (Friday)

10.00 – 12.00 Xi'an Jiaotong University

14.30 – 16.30 Shaanxi Normal University

7 September (Saturday)

10.00 – 12.00 Harbin Institute of Technology

Invitations to these series of ERC presentations are managed by the universities and sent to researchers engaged in frontier research to take the opportunity of this tour to learn about the great opportunities the European Research Council offers to top researchers worldwide.

Researchers interested in attending are advised to contact the International Cooperation and Exchange Offices of the relevant Universities and the S&T and Environment Section of the EU Delegation to China.

Contact Samantha.CHRISTEY@ec.europa.eu for further details (in case of absence due to Summer break, contact china@euraxess.net).

1st Euro-Asian Experts Conference on Immune Biomarkers for Personalized Medicine in Oncology, 6-7 September 2013, Shanghai

The joint institute Fudan University Shanghai Cancer Centre – Institut Mérieux laboratory (FDUSCC-IM), created in 2006, is conducting ambitious scientific research projects on oncology in China though a long term partnership between Fudan University Shanghai Cancer Centre, Transgene and bioMérieux.

New European partners (Medical Hannover School, National Institute of Tumor of Milano and University of Copenhagen) have joined FDUSCC and Transgene to launch an ambitious international program IMMUNOCAN in order to enhance current research activities of the joint institute and to create durable links between Chinese and European teams.

This 1st Euro-Asia Expert Conference on Immune Biomarkers for Personalized Medicine in Oncology is a unique opportunity to share scientific and medical Euro-Asian knowledge on prognosis biomarkers to emphasize the management

of cancer patients particularly those with non-small cell lung cancer, colorectal cancer, breast cancer and hepatocarcinoma.

Specific session will focused on immunotherapy, peripheral blood biomarkers, tumor microenvironment, the role of NK cells in cancer progression and the traditional Chinese medicine for cancer treatment. A dedicated session will promote the research activities of the FDSUCC-IM joint institute.

Further details about the conference, the speakers and registration are available on the IMMUNOCAN website.

EU-China Exhibition on Urban Development - November 20-23, 2013 (Conditional to the final dates of the EU-China Summit) - Beijing

The Joint Declaration on the EU-China Partnership on Urbanisation signed by then Vice-Premier Li KeQiang and European Commission President José Manuel Barroso in Brussels on May 3rd, 2012, identifies 14 areas for cooperation on urbanisation between the EU and Chinese sides, and encourages governments and enterprises on both sides to provide technical, financial and intellectual support to promote exchanges and cooperation at various levels.

In order to implement the Joint Declaration and make it a back-to-back event of the EU-China Urbanisation Forum 2013 to be held in Beijing in November this year, the EU-China Exhibition on Urban Development will be co-organised by the National Development and Reform Commission (NRDC), the European Commission and Committee of Regions, implemeneted by the China Center for Urban Development in collaboration with the China development Bank and the EU Chamber of Commerce in China, also in November this year.

The event will offer a platform for promoting exchanges and cooperation between a diverse selection of EU and Chinese cities, enterprises, research centres, NGOs and think-tanks. It will gather and combine:

500 exhibitors (about 300 Chinese and 200 Europeans), which will a great opportunity to showcase new concepts, technologies, development patterns and prospects for engagement.

A very dense 4-days programme of seminars and workshops to be organized in cooperation with 10 to 15 stakeholders.

For more information about this major event in the area of EU-China urbanization cooperation and about how to take part and reserve a booth, please see the brochure online.

6.3 Upcoming scientific events in China

Find out about major events in Europe on the European Commission's 'Conferences & Events' website.

Field	Date	Location	Title *(click for more details)*
Modernization science	8-10 August, 2013	Beijing	1st int'l modernization forum
Astronomy	16-18 August, 2013	Lijiang	Collaboration Meeting on Antarctic Survey Telescopes
Health	19-24 August, 2013	Beijing	Asian Mycological Congresses 2013
Biotechnology	20-21 August, 2013	Shanghai	5th Annual BioProcess International™ China
Atomic and Molecular Physics	20-23 August, 2013	Suzhou	CSH Asia 2013 Conference on New Advances in Optical Imaging of Live Cells and Organisms
ICT	20-23 August, 2013	Beijing	2013 IEEE International Conference on iThings/CPSCom/GreenCom (2013 World Cybermatics Congress)
ICT	20-23 August, 2013	Beijing	2nd International Workshop on energy and Wireless Sensors (e-WiSe)
ICT *(FP7 project)*	23 August, 2013	Beijing	2nd OpenChina-ICT Thematic Workshop on Internet of Things & Future Internet
Biology, Food safety	25-30 August, 2013	Beijing	10th Int'l Congress on Plant Pathology - ICPP
Engineering	28-31 August, 2013	Macau	International Congress on Engineering and Information (ICEAI 2013)
Engineering	29-31 August, 2013	Macau	2013 International Symposium on Engineering and Natural Sciences
Management & Economics	29-31 August, 2013	Macau	Annual Symposium on Management, Operation Research and Economics
Innovation	1-2 September, 2013	Beijing	2013 4th International Conference on Innovation, Management and Service-ICIMS 2013
Management	1-2 September, 2013	Beijing	2013 2nd International Conference on Management Technology and Science-ICMTS2013
Construction & Project Management	1-2 September, 2013	Beijing	2013 4th International Conference on Construction and Project Management - ICCPM 2013

Photonics	2-3 September, 2013	Hong Kong	2nd Sino-Danish Photonics Days
Cancer Research	2-6 September, 2013	Suzhou	CSH Asia 2013 Conference on Cell Signaling in Metabolism, Inflammation and Cancer
Immunology	4-6 September, 2013	Shanghai	Partnerships in Clinical Trials Asia 2013
Pharmacology	4-6 September, 2013	Shanghai	World Biopharma Week China Focus 2013
EU-China cooperation Medicine *(FP7 project)*	6-7 September, 2013	Shanghai	1st Euro-Asian Experts Conference on Immune Biomarkers for Personalized Medicine in Oncology
Chemistry	8-13 September, 2013	Shanghai	The 24th International Society of Heterocyclic Chemistry Congress
Proteomics *(FP7 project)*	9-10 September, 2013	Chongqing	3rd China-Europe Symposium on Glycoproteomics
Infectious Diseases	9-13 September, 2013	Suzhou	CSH Asia 2013 Conference on Molecular Basis of Aging and Disease
Pharmacology	20-22 September, 2013	Suzhou	2013 Chinese Congress and Exposition on Gerontology and Health Industry
Bioinformatics	20-22 September, 2013	Taicang	InCoB2013 - 12th International Conference on Bioinformatics
Chemistry	22-25 September, 2013	Dalian	2nd International Congress on Catalysis for Biorefineries (CatBior 2013)
Space	23-27 September, 2013	Beijing	64th International Astronautical Congress
Biotechnology	23-27 September, 2013	Beijing	The 13th International Conference con Culture Collections - ICCC-13
Computational Biology	23-27 September, 2013	Suzhou	CSH Asia 2013 Conference on Frontiers in Bioinformatics and Computational Biology
Chemistry	24-27 September, 2013	Chengdu	2013 Int'l Autumn Seminar on Propellants，Explosives and Pyrotechnics
Energy	25-28 September, 2013	Shanghai	5th World Hydrogen Technologies Convention，WHTC2013
Genetics	7-11 October, 2013	Suzhou	CSH Asia 2013 Conference on Genetic, Genomic, and Translational Studies of Human Leukemia
Atmospheric science	9-10 October 2013	Ningbo	International Conference on Atmospheric Science and Air Pollution Control and The 7th Fine and Ultrafine Particles Workshop
Neuroscience	10-15 October, 2013	Shenyang	3rd International Neural Regeneration Symposium (INRS2013), in conjunction with the 5th International Spinal Cord Injury Treatments and Trials Symposium
Biology	14-18 October, 2013	Suzhou	CSHA / ISSCR Joint Meeting on Stem Cells

			in Science and Medicine
Biology	15-20 October, 2013	Beijing	The 11th World Conference on Animal Production，WCAP2013
Neuroscience	21-25 October, 2013	Suzhou	CSH Asia 2013 Conference on Development, Function and Disease of Neural Circuits
Immunology	28 October-1 November, 2013	Suzhou	CSH Asia 2013 Conference on Tumor Immunology and Immunotherapy
Genomics	30 October-1 November, 2013	Shenzhen	The 8th International Conference on Genomics
Metabolism	4-8 November, 2013	Suzhou	CSH Asia 2013 Conference on Nuclear Receptors and Diseases
Environment	17-20 November, 2013	Beijing	Urban Environmental Pollution 2013 Asian Edition (UEP2013)
Microbiology	18-22 November, 2013	Suzhou	CSH Asia 2013 Conference on Bacterial Infection and Host Defense
Engineering	7-8 december, 2013	Guangzhou	2013 International Conference on Information Science and Cloud Computing (ISCC 2013)
Engineering	19-21 December, 2013	Hong Kong	2013 Hong Kong International Conference on Engineering and Applied Science

7 Press Review*

7.1 Policy & Papers

China to Boost Information Consumption as a New Growth Engine: Officials

Information-related consumption will become a new engine for China's growth with increasing support from the government, replacing that of the real estate, officials said on Wednesday. Authorities including the Ministry of Industry and Information Technology (MIIT) and the national Development and Reform Commission (NDRC) are carrying out policy researches in a bid to promote technology infrastructure, and foster demands in the sector, Zhu Hongren, chief engineer with the MIIT told a news briefing today. Related documents on the initiative will come out as soon as possible, added Mr. Zhu, who was also the spokesperson for the government briefing. Information-related consumption will become "a new source of economic growth after the real estate and the auto industry" under the government's efforts, the spokesman said. (source: Caijing)

Shanghai in new mission to pioneer innovation

Following hard on the heels of the establishment of a free trade zone, the State Council, also known as the cabinet, has handed Shanghai another major mission - pioneering the nation's economic restructuring. By granting national status to the development plan of the Shanghai Zhangjiang High-tech Industrial Development Zone between 2013 and 2020, Shanghai is now expected to take the lead and set an example for industrial innovation. Hou Jin, deputy director of the management committee of the zone, reiterated the importance of the mission, saying the Shanghai government is committed to achieving the specific targets set in the plan approved by the State Council on June 2. By 2015, the total sales revenue of the companies in Zhangjiang is expected to reach 3.3 trillion yuan ($535 billion), of which 1.2 trillion yuan should be contributed by strategic emerging industries. An innovative industrial system is expected to be completed in the zone, pillared by information technology, high-end equipment manufacturing, biomedicine, energy-saving and environmental protection products as well as new material industries. New energy and new-energy

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automobiles industries will take a pioneering role in the zone. Meanwhile, traditional industries will be reformed and updated there, according to Hou. (source: China.org)

China to promote innovative restructuring in hinterland regions

China plans to make industrial restructuring of the country's western parts more innovation and science-driven over the next seven years, according to a government action plan. The plan, issued by the National Development and Reform Commission(NDRC) and the Chinese Academy of Sciences (CAS), says more investment and policy support will be channeled to basic research and major scientific and technological projects in 12 provincial-level regions from 2013 to 2020. China launched a "go west" strategy in 2000 to boost economic development of the 12 provincial-level regions. Under the strategy, the western regions enjoy support in infrastructure construction, foreign investment, ecological protection, education and talent retention. Despite progress, the level of those regions' overall development lags behind other areas and "the need to speed up industrial restructuring [in those regions] is pressing," the plan reads. The NDRC, China's top economic planner, and the CAS said in the plan that they will enhance investment and increase policy support to the western part of the country, which occupies more than 70 percent of the nation's land area. Support will be channeled towards basic research, the commercialization of research findings, and the building of regional networks of innovative projects and industries. The NDRC and the CAS also pledged to focus their support on ecological construction and protection technologies, environmental protection projects, promotion of the clean use of coal, and the use of energy and mine resources. Other sectors that will benefit from the action plan include advanced equipment manufacturing, biological resources use, husbandry and logistics. Under the action plan, inhabitants in remote areas of west China will have access to advanced and low-cost medical services. Ethnic minorities will be assisted by information technology in education, social management and teachers' training. The 12 provincial-level regions covered in the "go west" strategy are Chongqing, Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Ningxia, Xinjiang, Inner Mongolia, Guangxi and Qinghai. (source: Xinhua net)

Solidify the Base for Innovation-Driven Development——the 1st plenary session of the 7th committee meeting of NSFC held

On May 28th, 2013, the 1stplenary session of the 7th committee meeting of National Natural Science Foundation of China (hereinafter referred to as NSFC) was held in Beijing. In the opening ceremony, NSFC president Yang Wei presented the work report entitled *Solid Base Leads to Originality, Searching for Truth and Striving to Develop, Commitment to Making Greater Efforts for Innovation-Driven Development*. Chen Yiyu, Director of NSFC Supervision Committee, presented the supervision work report entitled *Dare to Bear*

Responsibility, Brave to Take Actions, Endless Explore the Building of Scientific Integrity of Science Fund. NSFC Vice President Yao Jiannian announced the member list for the 7th Committee members and 4th Supervision Committee members. The opening ceremony was chaired by NSFC Vice President Shen Yan. (source: NSFC)

China to create 10 more city clusters

China's National Development and Reform Commission said the nation is set to create 10 more regional city clusters, Southern Metropolis Daily reported on Friday. The 10 city clusters will include a Harbin-Daqing-Qiqihar-Changchu-Jilin cluster, a Hohhot-Baotou-Erdos-Yulin cluster, a Taiyuan cluster, a Ningxia cluster along the Yellow River, a Yangtze and Huaihe Rivers cluster, a Beibu Gulf cluster, a Central Guizhou cluster, a Central Yunnan cluster, a Lanzhou-Xining cluster and a Urumqi-Changji-Shihezi cluster. A majority of them are located in central and western China.

China currently has 10 city clusters: Beijing-Tianjin-Hebei, Yangtze River Delta, Pearl River Delta, Central and South of Liaoning, Shangdong Peninsula, West Coast of Taiwan Straits, Central Plains, Middle Reaches of Yangtze River, Guanzhong and Chengdu-Chongqing. China will try to turn clusters, including the Beijing-Tianjin-Hebei, Yangtze River Delta and Pearl River Delta clusters, into world-class city clusters. The present 10 city clusters, covering 10 percent of the country's area, with one third of the country's population, account for two thirds of the entire economic output and have turned into pillars of the Chinese economy. Vice Director of the China Society Of Urban Economy Yang Chongguang told National Business Daily that city clusters are a result of economic development, yet also bring forth a lot of problems, such as the excessive concentration of population and traffic jams. Quality must be stressed in city cluster development, said Yang. The government needs to consider the structure of cities and their environmental sustainability. Without a harmonious combination of a city's structure and the environmental factors, it is difficult to get a satisfactory result, Yang said. (source: China.org)

Zhangjiagang's evaluation system for talent projects fruitful

After a year's study, Zhangjiagang city of East China's Jiangsu province designed the "performance evaluation system of talent projects", and held a news conference Wednesday to show its achievements. Five enterprises were awarded the first batch of "leading model enterprises of innovative and startup talents". Launched in June 2012, the system is an achievement made by the local government, in conjunction with China's leading talent management specialists, Professor Gui Zhaoming of Wuhan Institute of Technology and his team. It has made the quality of talent project evidence-oriented. Gui says that the system carries out performance evaluation to talent projects of more than two years. Start-up and innovative talent projects are evaluated separately, both apply economic, social and technological efficiency as the primary indicators. The start-up projects even have more than ten quantified secondary indicators.

Different methods are taken to measure the projects in order to ensure a scientific evaluation. (source: China Daily)

7.2 Voices & Opinions

Xi urges development through scientific innovation

President Xi Jinping called for a greater focus on scientific innovation, as well as making it a driving force for China's development. The nation will be revitalized and become powerful if it has strong scientific power, Xi said while visiting the Chinese Academy of Sciences (CAS). Science and technology are a focal point of global competition and all major countries are trying to acquire advanced technology, including that related to national defense, Xi said. Xi called for scientists to be ambitious and eliminate any obstacles that could thwart scientific development. Xi visited the Institute of High Energy Physics at CAS, where he learned about the Beijing Electron Position Collider (BEPC), as well as met three scientists who participated in the creation of the facility. He said CAS houses the best scientists in China and has made numerous scientific achievements. Xi urged the CAS to continue to carry its spirit forward and build itself into a first-class scientific academy. (source: Xinhua net)

Vice Premier Stresses on Basic Research in Technology Innovation

On May 28th,VicePremier Madam Liu Yandong pointed out on her visit to NSFCthat science should be given more emphasis on its long term value, which could guide technology innovation, create new demands, open new areas for economic growth, and boost the healthy social and economic development as well as sustainable prosperity. Madam Liu fully affirmed the remarkable achievement and developments NSFC has accomplished in various aspects in the past years. She pointed out that NSFC had endlessly deepened the exploration of science funding theory, perfected management mechanism, strengthened collaborative innovation, broadened open cooperation, promoted the scientific, democratic and law-based management, winning its reputation in the scientific and technological community, as well as international evaluation experts alike. The establishment, perfection and development of science funding system have played an important role in prospering the basic research and strengthening research personnel in China and made great contributions to improving the ability of independent innovation and accelerating the establishment of the innovation-oriented country. She emphasized that CPC Central Committee has raised scientific innovation to a new strategic priority andthe 18th CPC National Congress had explicitly emphasized on the implementation of the innovation-driven development strategy. It had been pointed out that scientific innovation is the strategic support for increasing social productivity and overall national capacity. Thus it should be placed in the core

for national development. Basic research is the root for scientific innovation. China has a complete discipline system and rather advanced scientific infrastructure, which has produced large numbers of innovative talents and a number of scientific achievements. However, the original ability for innovation of the country is not yet strong, major innovative achievements are seldom, especially with a lack in landmark achievements in international research frontiersand supporting national industry transformation. The development of the basic research in China has yet to adapt to the needs of domestic and international situation. Madam Liu stressed that science funding system is the successful practiceof science and technology system reform. With the reform and the innovative spirit,NSFC should further deepen strategic research, work on new ideas for development, and serve the interests of national overall development. (source: NSFC)

Expert urges transparency on environment

The public should be involved in environmental monitoring and management if China is to avoid future pollution-related incidents, said environmentalist Ma Jun in an exclusive interview with China.org.cn. "Public participation is crucial in the prevention of environmental pollution," said Ma Jun, a director with the Institute of Public & Environmental Affairs (IPE), a Beijing-based NGO that aims to expand access to environmental information in China. With that information, the IPE believes the public could urge pollution-prone corporations to reduce their carbon emissions. According to Ma, the disclosure of such information, by both corporations and the government, would enable the public to then monitor pollution for themselves. Government departments, Ma said, should disclose information related to environmental quality and supervision. Companies should be required to report the type and quantity of pollutants they discharge. Ma said that most government departments and enterprises have been reluctant to disclose environmental information, despite the fact that China's Regulation on Environmental Information Disclosure officially took effect May 1, 2008. In an attempt to draw attention to this fact, IPE has established a scoring system to evaluate individual government departments' disclosure. "The average score for those cities in 2009 was only 31, and it has increased to 42 as of last year. Despite such progress, it is still unsatisfying", said Ma. (source: China.org)

7.3 Thematic Activities

Health

Channel Gating Pore: A New Therapeutic Target

Each subunit of voltage-gated cation channels comprises a voltage-sensing domain and a pore region. In a paper recently published in *Cell Research*, Li et al. showed that the gating charge pathway of the voltage sensor of the KCNQ2 K^+ channel can accommodate small opener molecules and offer a new target to treat hyperexcitability disorders. (source: CAS)

New screens can pinpoint gene mutation

The Beijing Centers for Disease Control and Prevention has developed a new technique to scan for mutations in the gene p53 to detect malignant genetic changes in human body. Early detection of gene mutations can allow doctors to direct people to take precautions to stop malignant tumor growth, or to receive cancer treatment early to increase their chances of survival. The institution announced it will cooperate with Sinopharm International to promote the technology nationwide. (source: China Daily)

China's AIDS research efforts progressing

China's research on its own AIDS vaccine has entered the second phase of clinical trial, which is expected to make a major breakthrough between three and five years. Li Ning, head of the Beijing You'an hospital, made this remark on Tuesday. For AIDS treatment, Li claimed that the World Health Organization has categorized AIDS as a chronic disease. Also, there are reports of individual cases concerning AIDS treatment by means of biological therapy, cell therapy and gene therapy, which indicate that AIDS is preventable, controllable and curable. The clinical trial of self-developed AIDS vaccine started last year. After preliminary experiments on animals, it proved satisfactory in terms of efficacy and mithridatism, which enabled the experiment to enter the second phase of clinical trial. (source: China.org)

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SIMM Maps Crystal Structure of Folate Receptor, Providing Template for More Effective Anti-cancer Drugs

Shanghai Institute of Materia Medica (SIMM) researchers have mapped the complex molecular structure of a folate receptor, a drug target for a number of cancers and other diseases, a first-of-its-kind discovery that may lead to the development of more precise, consistent and effective treatments. (source: CAS)

Hepatic stem cells to cure terminal liver diseases: study

Hepatic stem cells, produced by a patients' own cells, could possibly help cure end-stage liver diseases, a study led by Chinese scientists has shown

The four-year study on mice, led by Prof. Hu Yiping of the Department of Cell Biology under the Shanghai-based Second Military Medical University, has been published in the latest online version of the US "Cell Stem Cell" journal, 18 July 2013 issue. The article, titled "Reprogramming Fibroblasts into Bipotential Hepatic Stem Cells by Defined Factors," marks a breakthrough in China's hepatic stem cells study, said a statement from Hu's team. Various liver diseases, including those at the terminal stage, would be curable by using the patients' own cells to produce hepatic stem cells and repopulating them into the patients' body, if the clinical research makes key progress, according to He Zhiying, an associate professor of the team. (source: Global Times)

International Collaboration Unmasks 3D Structure of A Key Drug Target for Diabetes

Glucagon is a hormone secreted by α cells in the pancreatic islets. It was isolated, crystallized and structurally determined in 1953. Human glucagon is a single chain polypeptide consisting of 29 amino acids (molecular weight = 3485). It starts with a histidine at the N-terminal and ends with a threonine at the C-terminal. Glucagon binds specifically to its cognate receptor (a class B GPCR) located mainly on the surfaces of liver and kidney cells, thereby activating the downstream signal transduction pathway and exerting physiological actions. Unlike insulin, glucagon increases blood glucose levels via promotion of glycogenolysis and gluconeogenesis. Of various contributors that affect glucagon secretion, blood sugar is the key factor: an increased release is seen when blood glucose is elevated, or vice versa if the latter drops. Insulin can indirectly stimulate glucagon secretion by reducing circulating glucose concentrations. They are thus a pair of hormones with opposing effects and form a negative feedback loop to regulate blood glucose. Therefore, glucagon receptor is well-recognized as a potential drug target for type 2 diabetes. GPCRs are associated with a variety of diseases and hence, have become targets for many modern medications. There are six subclasses of GPCRs ranging from A through F. However, the three dimensional structures of the GPCRs solved so far all belong to class A. Little is known about the atomic make-up of class B GPCRs. An international team consisting of scientists from China, USA, the Netherlands and Denmark formed a close collaboration working around the clock for over two years in this effort. A small molecule ligand was used to stabilize the receptor protein and to help crystal growth. The

resulting structure the 7-transmembrane domain of glucagon receptor was subsequently determined to a resolution of 3.4 Angstroms. Further studies were carried out with the crystal structure and 128 mutated receptors to analyze changes in binding properties. (source: CAS)

H7N9 could efficiently spread from human to human someday: study

The H7N9 bird flu virus may be highly transmissible among ferrets, a common animal model for studying how flu might spread in humans, Chinese researchers reported Thursday. Though H7N9 appears to have been brought under control, the researchers warned in a study published online in the US journal Science that the character of the virus, including its pandemic potential, "remains largely unknown" and that it's possible the virus can efficiently spread between humans eventually. "We must have material and technical reserves, including policies and measures for possible reemergence of the H7N9 virus in the future, otherwise the virus could hit the world hard," Chen Hualan, director of China's National Avian Influenza Reference Laboratory at Harbin Veterinary Research Institute, who led the study, told Xinhua by phone. (source: Xinhuanet)

Sino-U.S. scientists sequence Mongolian genome

Scientists from China and the U.S. have finished sequencing the genome of Mongolians living in northwest China's Qinghai Province, according to the research team responsible for the sequencing. The sequencing and drafting of the genome was published on Thursday in the science journal PLoS Genetics. The research is expected to aid in the treatment of altitude-related diseases. A team consisting of researchers from the Medical College of Qinghai University and the University of Utah spent four years sequencing the genome. The team studied 42 Mongolians living at an altitude of 3,000 meters and compared them with 300 people of nine populations from elsewhere in Asia and Europe. More than 300 genes, or 2 percent of the genome, varied greatly from those of other populations and helped the Mongolians adapt to the region's plateau environment, said Gerili, director of the Research Center for High Altitude Medicine at Qinghai University. The findings will aid in the understanding of the body's low-oxygen response system and help researchers find new ways to prevent and treat high-altitude sickness and other illnesses that occur in low-oxygen environments, Gerili said. Gerili said the team found that the Mongolians of Qinghai share some genes with Tibetans, adding that cross-ethnic communication with Tibetans also helped the Mongolians adapt to their environment. (source: Xinhua net)

Chinese researchers find simple way to create stem cells

Chinese researchers said Thursday they have developed an "easy and safe way" to create stem cells, a breakthrough that could greatly promote the development of so-called therapeutic cloning to generate tissues and organs for

treatment of diseases. The method, described in the US journal Science, involved a cocktail of small-molecule compounds to reprogram somatic cells to a pluripotent state with the ability to differentiate into any other type of cell in the body. Previously, the genetic manipulation required to induce this pluripotent state, via nuclear transfer into oocytes or through the ectopic expression of defined factors, is complicated, a fact that has limited the cells' clinical applications so far. In this study, Professor Deng Hongkui of Peking University said his team validated "a whole new route" to pluripotent stem cells by inducing a pluripotent state in mouse somatic cells with a combination of seven small-molecule compounds. (source: Global Times)

Eating Less May Extend Longevity, Study Finds

In line with the old saying that a good diet cures more than a doctor, people have believed for some time that eating less can preserve health and extend life span. But there has been little scientific evidence to show how cutting back on the calories can help. However, scientific research published in Nature Communications on Tuesday could provide a new explanation. Calorie restriction promotes the growth of gut bacteria associated with increased life span in mice, according to a news release from the science magazine. Chinese researchers gave mice high-fat and low-fat foods — some were given as much food as they wanted (free-feeding), while others were under calorie restriction (given only 70 percent of the food of the free-feeding group). The results showed that the calorie-restricted low-fat group lived the longest, while the mice that ate as much high-fat food as they wanted had the shortest lives. Analysis of the mice feces showed that some beneficial bacteria correlate positively with life span and are enriched by calorie restriction, while bacteria that correlate negatively with life span are reduced by the restriction, the news release said. "Scientific research has been pointing to the result that calorie restriction increases life span, but the unanswered questions are why and how," said Zhao Liping, a professor specializing in microbiology at Shanghai Jiao Tong University, who led the research. (source: CAS)

Enzymatic Mechanisms of Staphylococcus Aureus Clp Protease

The ATP-dependent Clp protease (ClpP), which consists of two heptameric rings that enclose a large chamber, plays an essential role not only in the control of protein quality but also in the regulation of bacterial pathogen virulence, making it an attractive target for antibacterial treatment. However, there are no agents under clinical trial targeting ClpP reported at present. The research team of antibacterial study in Shanghai Institute of Materia Medica (SIMM) has made a great breakthrough in understanding molecular mechanisms of ClpP from Staphylococcus aureus (SaClpP). In this study, doctoral students YE Fei and ZHANG Jie, led by Professor LUO Cheng and YANG Caiguang, demonstrated the enzymatic dynamics and acting mechanisms of ClpP based on the crystal structures of SaClpP in two different states they have previously determined, extended and compressed. Guided by

MD simulations, they investigate the pathway and mechanism of SaClpP between different states. (source: CAS)

Structural Studies Reveal Wider Virus-recognition Spectrum of IFITs

Interferons (IFNs) are proteins made and released by host cells in response to the presence of pathogens or tumor cells. Being able to "interfere" with viral replication within host cells, Interferon blocks virus replication by inducing the expression of interferon-stimulated genes (ISGs) which were reported to block viral replication and regulate immune responses. However, the underlying molecular mechanisms of these ISGs are largely unknown, including IFN-induced tetratricopeptide repeats (IFITs), also known as IFN-stimulated gene 56 (ISG56). Recently, Dr. LIANG Huanhuan and co-authors from LIU Yingfang's group at the Institute of Biophysics, Chinese Academy of Sciences (IBP) made important progress in this field by collaborating with Prof. ZENG Su's group at Zhejiang University and Prof. CHENG Genhong's group at UCLA. Prof. LIU is a leading structural biologist in China who studies of proteins related to cancer, virus, replication and apoptosis. Previously, using structural biology methods, LIU's group found that IFIT2/ISG54 possessed a right-handed helical channel which recognizes AU-rich RNAs. They also proved that the RNA binding ability of IFIT2 was related to its antiviral activity. Other researchers have also shown that IFIT1/ISG56 specifically recognizes viral 5'-pppRNA. As the expression patterns of IFITs have been reported to be cell- and inducer-specific, LIU's group hypothesizes that different family members likely recognize distinct substrates. (source: CAS)

Anhui's TCM academy seeks overseas talent

Anhui Academy of Chinese Medicine, a provincial-level TCM research organization in East China, will recruit overseas talent. The academy, affiliated with Anhui University of Chinese Medicine, is seeking applicants to head its 11 research institutes with a three year contract, including the Institute of TCM Diabetes Prevention, Institute of TCM Encephalopathy Prevention and Institute of TCM Health Care. (source: China Daily)

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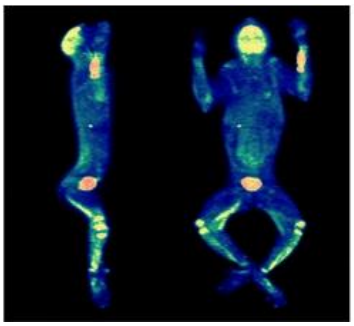
Report on coal-burning, life expectancy clarified

A controversial study suggesting the life expectancy of people in North China has been years lower than in the less-polluted south was only a statistical estimate and its context must be understood, one of the report's lead authors said on Thursday. Analyzing pollution and mortality information for 90 cities between 1981 and the year 2000, the study found that the 500 million residents north of the Huai River, where air pollution from coal-fired heating was 55 percent higher than in the south, lost more than 2.5 billion life years during the 1990s, or 5.5 years on average. Since its publication online on Monday by Proceedings of the National Academy of Sciences, the official journal of the US National Academy of Sciences, the report has made headlines across domestic and international news media. However, Chen Yuyu, professor with the Guanghua School of Management under Peking University, told Xinhua in an exclusive interview that the results had been misinterpreted and taken out of context by some journalists. He said that the results came on the premise that all other factors were kept controlled, such as nutrition, medical treatment and life styles. (source: China Daily)

Ministry calls air pollution study 'unconvincing'

The Ministry of Environmental Protection said on Wednesday that a recent study about the link between air pollution and life expectancy is unconvincing due to the limited samples on which it is based. Liu Zhiquan, an official with the ministry, told China News Service on Wednesday that the pollutants emitted in coal burning include heavy metals, small particles and sulfur dioxide, which can affect human health, but whether the pollution can shorten lives or not is still unknown. It will take a long-term observation to get such a result, Liu said. The study, published in a US multidisciplinary scientific serial called the Proceedings of the National Academy of Sciences on Tuesday, showed that air pollution from coal burning caused people in northern China to live an average of 5.5 years shorter than those who live in the south. Coal burning has been providing heat to the north for decades. It analyzed the total suspended particulate matter and deaths in 90 cities across the country from 1981 to 2000. (source: China Daily)



A scanned image of a 4.5kg macaque (Image by IHEP)

New PET System for Human Body Imaging Developed

Positron Emission Tomography (PET) is a nuclear medical imaging technique that produces a three-dimensional image or picture of functional processes in the body. PET is both a medical and research tool. Scientists from the Institute of High Energy Physics (IHEP) recently developed a new type of high-resolution PET system for human body imaging in China. The image resolution of the cone field of view (CFOV) is less than 3.5mm, better than the standards of the National Electrical Manufacturers Association (NEMA). In the next phase, scientists will move to the registration and inspection for the medical facility and its clinical trials. (source: CAS)

Researchers Reveal Subepicardial Endothelial Cells Working as Major Source for Coronary Arteries in Embryonic Ventricle Wall

Coronary artery disease is the leading cause of death worldwide. Understanding the developmental origin of coronary arteries and the underlying molecular program would contribute important information to the field of developmental biology and also cardiovascular regenerative medicine. However, the basic knowledge of the origin of coronary arteries in mammalian heart still remain unclear, with debates over sinus venosus and endocardial cell as origins. ZHOU Bin, M.D., Ph.D., professor of Shanghai Institutes for Biological Sciences and his group members generated a unique genetic tool AplnCreER and applied it in lineage tracing of subepicardial endothelial cells. They observed that these primitive endothelial cells could migrate into embryonic ventricular wall and form the majority of coronary arteries in developing heart. (source: CAS)

China to host gastric cancer conference in 2017

At the 10th International Gastric Cancer Congress, which took place from June 19 to 22 in Verona, Italy, China was chosen to hold the IGCC 2017. It will be the first time that China will host the influential gastric cancer academic conference. The conference is held biennially on a rotating basis. It was first held in Japan in 1995. During the IGCC 2013, thousands of top experts in the field attended the conference, including 120 from China. China is among the countries with the highest gastric cancer incidence rates in the world, and it is estimated that of the 1 million new gastric cancer cases globally every year, about half are in China, said Ji Jiafu, president of Beijing Cancer Hospital, who headed the team that helped China earn the right to host the 2017 conference. (source: China Daily)

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Food, agriculture & fisheries, biotechnology

China announces rules for food safety

A fresh regulation on the safety assessment of foodstuff was released by the National Health and Family Planning Commission. Foodstuff specified in the regulation include animals, plants and microorganisms that are not in the country's traditional recipes, and includes components extracted from them. According to the regulation, if the safety of the licensed foodstuff does not meet science and technology updates or if there is evidence showing the food not to be safe, the commission must assess the safety of the substance for a second time. If the licensed food material fails to meet safety rules in the re-examination, the commission will revoke the licenses for such foodstuff, it adds. The regulation also mandates that those to be found providing false documents when applying for licenses of foodstuff will not be eligible to file an application of the same food substance within a year. The regulation is set to come into effect on Oct. 1, replacing the previous one which was released on Dec. 1, 2007. (source: Xinhua net)

Dutch firm to set up China Fund to help European biotech industry

Life Science Partners (LSP), a Dutch venture capital firm, announced on Tuesday that it will establish a China Fund, which will raise money in China and to be used to assist the development of the European biotechnology market. According to LSP, it will also sell European biotech company's technology to Chinese companies in the same industry. It is reported that this is the first time LSP will raise funds in China. As European institutional investors tend to invest less in risky industries such as life sciences because of strict capital requirements, European biotech companies lack money for research and development of new products. Chinese biotech companies and research centers on the other hand have great need for European knowledge and expertise to accelerate the development of their products. (Xinhuanet)

GM crops remain problematic for Asian countries

The role of genetic modification (GM) technology in Asian agriculture remains unclear and individual countries have adopted different approaches to tackle the sensitive subject. At a food security meeting held by ASEAN Plus Three (APT) countries this week, participants from ASEAN countries, China, Japan and the Republic of Korea (ROK) showed ambivalence toward GM technology. Pornsil Patchrintanakul, vice chairman of the Thai Chamber of Commerce, said there is no consensus among the ASEAN community regarding GM crops, adding that the countries are divided on the adoption and popularization of GM technology. Growing GM crops is forbidden in Thailand, Patchrintanakul added. This is also the case in China. The world's biggest grain producer maintains a standing policy that forbids growing GM grain. But China does allow imports of certain GM products. In 2012, China imported over 58 million tons of soybeans - mostly genetically modified -- a practice that has been going on for years. Public opinions on GM crops in China are polarized, with a great number of people holding suspicions toward GM products. (source: Global Times)

Peach Transcriptome Research Reveals Complexity of Fruit Tree Functional Genomics

With the increasing demand for peach and related products, it is urgent to find more effective way for new varieties breeding. Therefore, the functional genomics studies of peach will have great power on promoting the peach breeding and industry. To facilitate gene isolation which controls important horticultural traits of peach, Dr. WANG Lu from Key Laboratory of Plant Germplasm Enhancement and Specialty Agriculture, Wuhan Botanical Garden conducted transcriptome sequencing. A total of 133 million pair-end RNA-Seq reads were generated from leaf, flower, and fruit, and 90% of reads were mapped to the peach draft genome. Their study reveals for the first time the complexity of the peach transcriptome, and gives an extensive new knowledge about alternative splicing, NTRs, and gene boundaries. The results will not only serve as a complement to the predicted gene database of peach, but also provide an invaluable resource for functional genomics research in peach and other fruit trees in the future. (source: CAS)

Breakthrough made in Cyananthus research in Yunnan

Chinese scientists have discovered the phylogenetic and bio-geographic characteristics of Cyananthus, a flower endemic to the Sino-Himalayan areas, as well as implications for the evolution of its sexual system. Vicariance resulting from the extensive uplift of the Qinghai-Tibetan Plateau and the Hengduan Mountains played an important role in the subsequent diversification of the genus. Sun Hang, a researcher at the Kunming Institute of Botany, led a group of academics to fully investigate the plant and published the breakthrough in Molecular Phylogenetics and Evolution, an internationally renowned academic journal. (source: China Daily)

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Information & communication technologies

Nation falling short on IT security: survey

Most organizations in China have failed to meet ever-growing challenges to information security, even though they have taken some steps to improve the situation, an Ernst & Young survey has found. The need for better information security has become quite urgent in China, especially after the exposure of the United States' program known as PRISM, a clandestine Internet and telecom surveillance system operated by the US National Security Agency. (source: China Daily)

CNNIC Released 32nd Statistical Report on Internet Development

The China Internet Network Information Center (CNNIC) released the 32nd Statistical Report on Internet Development ("the Report") on July 17th, 2013. Netizen Growth Entered into a Steady State, Application Hotspot Transferred to Mobile Phone Products; Netizen Growth Entered into a Steady State, Mobile Phones Became No. 1 Source of New Netizens; Mobile Phone Applications Became Developing Highlight, Growth of PC Applications Tended to Slow Down (source: CAS)

MIIT to release 4G licenses by year-end

The Ministry of Industry and Information Technology (MIIT) will release fourth generation (4G) telecommunications licenses by the end of this year, Xinhua News Agency reported Saturday, citing an official from the ministry. The move is expected to accelerate broadband development in China, the biggest telecom market in the world in terms of number of subscribers. According to the report, the government will also enhance 3G network coverage and service quality, and encourage private capital to enter the telecom market. The 4G network is expected to give users access to faster Internet speeds, an area in which China has lagged behind other markets. China's three telecom operators have already laid out their strategies for the development of 4G mobile networks. (source: Global Times)

IT push aims to boost domestic demand

China is to promote consumption of IT-related products and services as it seeks to spur domestic demand and push economic upgrading. It will speed up work to issue licenses for the fourth generation (4G) mobile network this year and accelerate development of broadband Internet access, according to a statement released after an executive meeting of the State Council presided over by Premier Li Keqiang. The nation is aiming for annual average growth of 20 percent in the information consumption industry from 2013 to 2015, the statement said. The meeting demanded implementation of the “Broadband China” strategy, stepped-up efforts to construct and upgrade network infrastructure, pushing forward the FTTH (Fiber To the Home) project and improving Internet speed. China, which has the largest number of mobile phones in the world at 1.2 billion, is already building 4G trial networks in major cities. China Mobile, its largest telecom carrier, is promoting the homegrown Time-Division Long-Term Evolution (TD-LTE) 4G standard and hopes to start commercial 4G rollout as soon as possible. (source: China Daily)

China Develops 100-megapixel Camera

A Chinese institute has successfully developed a camera featuring a 100-megapixel charge-coupled device (CCD) chip, the Chinese Academy of Sciences (CAS) announced on Wednesday. It is currently China's highest pixel camera, the academy said in a statement. The camera, IOE3-Kanban, was developed by the Institute of Optics and Electronics under the CAS and is

capable of producing images with 10,240 x 10,240 pixels, the statement said. Moreover, it is small and light, with its widest part measuring only 19.3 cm, the statement said, adding that it can be used at temperatures ranging from minus 20 degrees centigrade to 55 degrees centigrade. Its high sensitivity and high dynamic range (HDR) features mean it will be useful in high-resolution imaging in the fields of aerial mapping, city planning, disaster monitoring and intelligent transportation systems, the statement said. (source: CAS)

Quantum computer solves simple linear equations: Solving equations with light

It's the sort of easy maths problem that you can work out in a few minutes using pencil and paper, but physicists in China, Canada and Singapore have now solved pairs of linear equations like this one using a simple quantum computer. Their experiment involves encoding quantum information into four photons and sending them through a system of optical devices. The physicists claim that their set-up could be improved and modified further to solve other types of problems. The computational feat has been carried out by Jian-Wei Pan and colleagues at the University of Science and Technology of China, the University of Toronto and the National University of Singapore, who used a quantum algorithm created in 2009 by Aram Harrow, Avinatan Hassidim and Seth Lloyd. (source: IOP Physics World, via CAS)

China ramps up spending on info sectors

Spending on information industries in China is set to surpass 2 trillion yuan ($326 billion) by 2015, according to the country's information regulator, the China Securities Journal reported on Tuesday. Information industries, such as information technology and telecommunications, will grow by an annual compounded rate of 25 percent in two years, said the Ministry of Industry and Information Technology. The ministry will roll out policies to boost consumption derived from information industries, unnamed sources from the ministry said. As a whole, information industries are expected to contribute 0.7 percent to the country's gross domestic product, churning out an additional market value worth 1 trillion yuan. Major hurdles that hinder the takeoff of the industry include low Internet penetration rates and connection speeds, as well as financial and fiscal burdens for small and medium-sized Internet companies. (source: China Daily)

A New Supercapacitor's Electrode Material with High Specific Capacitance and Low Cost Prepared

Supercapacitor is the most promising electrochemical energy storage device due to its higher power density and longer cycle life compared with the secondary battery. It has been widely applied for the information technology industry, such as electronic devices, electric vehicles, etc. The electrode is one of the most important components for a supercapacitor. As the common materials of electric double-layer capacitor (EDLC) electrodes, there are metal

oxides, polymers, and porous materials and so on. Besides, new carbon materials, like carbon nanotube, have also been developed as a electrode material, but there are difficulties in practical application because of their complicated preparation and high cost. Researchers from Xinjiang Technical Institute of Physics & Chemistry, Chinese Academy of Sciences (XTIPC), prepared a new activated carbon with high specific capacitance and low cost,employing cotton stalk as the raw material, by using the phosphoric acid (H_3PO_4) chemical activation methodat a certain temperature. (source: CAS)

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Nanosciences, nanotechnologies, materials & new production technologies

Cysteine-modified Orange Peel for Removal of Cu(II) from Aqueous Solutions

Copper is widely applied to the electrical and electroplating industry, exhibits high acute and chronic toxicity. Due to Cu (II) is not biodegradable like many organic pollutants, its removal is important in environmental remediation and clean-up efforts. Adsorption possesses advantages such as high efficiency in treating aqueous solutions with relatively low metal ion concentrations and producing suitable effluent for reuse without secondary pollution. Removal of heavy metal ions with adsorbent gained from low-cost and renewable biomass or agriculture wastes is of particularly interesting. Researchers at Xinjiang Technology Institute of Physics & Chemistry, Chinese Academy of Sciences (XTIPC), employed cysteine-modified orange peel (COP) for the removal of Cu(II) from aqueous solutions has been developed and comparatively studied with diethylenetriamine-modified orange peel (DOP). Researchers systematically evaluated COP and DOP by their capabilities for adsorbing Cu(II), including the key influential parameters such as initial pH, contact time and initial Cu(II) concentration. (source: CAS)

Catalytic Mechanism of Nitrogen Doped Carbon Nanomaterials

Carbon nanomaterials, which are represented by carbon nanotubes, nanodiamond, graphene, et al., have the broad application prospects for catalysis. These materials can be not only used as high-performance support for metal or oxide active components, but also directly used as the metal-free catalysts for oxidative dehydrogenation, selective oxidation and electric catalytic reaction, etc. Compared with the traditional metal catalysts, carbon-based catalysts possess many excellent advantages, such as modifiable surface and structure, sufficient carbon resources, high resistance against acid and alkali corrosions. Furthermore, their acid-base properties, catalytic activity and selectivity to special product can be tuned through the chemically doping with heteroatoms of nitrogen, boron and phosphorus into the carbon nanostructure.

Therefore, the research on doped carbon nanomaterials has become one of the topics in the areas of carbon and catalysis over the world. On the basis of previous researches on metal-free catalysis, the group of Prof. ZHANG Jian in the Ningbo Materials Technology and Engineering, the Chinese Academy of Sciences (NIMTE), cooperating with Prof. SU Dangsheng (the Metal Research Institute, CAS) and Prof. PENG Feng (the South China University of Science and Technology), carried out a systematic work revealing the enhanced catalytic activity of nitrogen-doped carbon nanotube (NCNT) for oxidative dehydrogenation of propane. The NCNT were prepared by chemical vapor deposition method with controllable nitrogen contents (Figure 1). In the catalytic oxidation of propane dehydrogenation, the increase in nitrogen content of NCNT increased the selectivity and yield of the target product of propylene. (source: CAS)

LICP Invents Aqueous Epoxy Adhesive Solid Lubricant

Adhesive solid lubricating coatings are solid lubricating films with a thickness ranging from 20 to 30 micro-meters and are composed of solid lubricants, anti-wear regents, preservatives and other filling materials. They have certain advantages, such as low friction coefficient, wide temperature range, low price, easy operation. By adhering adhesive solid lubricating coatings to the surface of devices, the friction coefficient of surfaces in relative movement can be reduced. However, as for most adhesive solid lubricants, the adhesives used are dissolved in organic solvent. Moreover, during the dispersion process of fillings, organic solvent is used as well. All of these will cause pollution to the environment. Therefore, it is urgent to develop environmental-friendly lubricants. The research group for wear and surface engineering with the R&D Center of Lubricating and Protecting Materials, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences (LICP), has invented new aqueous epoxy adhesive solid lubricant and received a Chinese invention patent on April 10. The newly developed lubricants are composed of bi-component aqueous epoxy resin, solid lubricants, anti-wear regents, surfactants, preservatives, anti-sediment agents and water. They can be coated on the surfaces of devices made of stainless steel, carbon steel and alloys. (source: CAS)

QIBEBT Develops Advanced Biomass Materials for Energy Storage

The renewable biomass materials have important application prospect in the field of sustainable energy materials. In the vast blue ocean, there are abundant of seaweed polysaccharides, chitin and other biomass materials. Based on these marine biomass materials, high performance energy materials have been developed, and are of important ecological, economic and social benefits. The Biomimetics for Energy Storage Group at Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences has developed lithium ion battery (LIB) separators using cellulosic biomass materials and thermostable polymeric materials by nonwoven technology for electric vehicles (EVs) & hybrid electric vehicles (HEVs) (ACS Appl Mater. Inter. 2013, 5, 128-

134). This separator has a unique chemical and physical structure, which is beneficial for the access of electrolyte, favor of the migration of lithium ions and the transport of electron. Moreover, the separator exhibits very exciting thermal stability at high temperature. (source: CAS)

Self-powering Cloth Electronics

Flexible electronics are an exciting area of research with foldable displays and wearable electronics being potential uses. Self-contained power generation complements flexibility by removing the need for bulky external power supplies to make smaller devices more feasible. Guozhen Shen from the Chinese Academy of Sciences, and co-workers at the Wuhan National Laboratory for Optoelectronics, have made tin dioxide cloth by growing tin dioxide nanoparticles on a carbon cloth template to give hollow microtubes of tin dioxide in a woven pattern. Tin dioxide is a wide band gap semi-conductor that has high quantum efficiency in the UV region, making it a good material for both battery electrodes and light sensing. (source: CAS)

LICP Researchers Develop Efficient Rh/O_2 Catalytic System for Oxidative C-H Activation/Annulation

The research group headed by Professor HUANG Hanmin at the State Key Laboratory for Oxo Synthesis and Selective Oxidation, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences (LICP), has developed a new and efficient rhodium-catalyzed protocol for the synthesis of isoquinolinium salts from the reaction between arenes and alkynes through oxidative C−H bond activation and annulation. The work has been published in *J. Am. Chem. Soc.* (*J. Am. Chem. Soc.* 2013, DOI:10.1021/ja404414q). (source: CAS)

China delivers world's largest deep-sea engineering equipment

World's largest deep-sea engineering equipment built by a Chinese company was delivered on Wednesday to its Brazilian client. Wuchang Shipbuilding Industry Co., Ltd. delivered four sets of buoys and 16 sets of foundations to Petrobras as part of the Sapinhoa-Lula NE BSR Buoys & Foundations Project, which will be installed in an offshore oilfield in Brazil to work for a period of 27 years. The equipment is able to fit in deeper and more complicated marine environment and has extensively enlarged the scope of offshore oil exploitation, said Victor Bomfim, senior vice president of the project contractor Subsea 7 S.A. Peter Wang, managing director of Eastern Horizon Consultant, said the delivery indicates that China is now capable of building high-end deep-sea engineering equipment. (source: Global Times)

Intelligent mining machinery to replace Chinese laborers

A state-owned company said Wednesday that it has sold China's first domestically-developed "intelligent" coal-mining machinery, which is capable of mining coal without the aid of human laborers. Cao said the machines can produce 10 million tonnes of coal annually in a single mine face, equivalent to the production capability of 50 to 100 workers. In 2012, 1,384 people were killed in mine accidents in China, or 37 workers killed for every 100 million tonnes of coal produced, according to the State Administration of Work Safety. (source: Global Times)

Shanghai center to showcase robots

The consumer robotics market is set to have a quick takeoff in China with the nation's first service robot exhibition center scheduled to open in Shanghai by the end of July. Service robots, as opposed to industrial robots that are used in manufacturing, belong to a new category developed for domestic use to carry out repetitive, dull or complex tasks, said Zhang Pen, sales manager at Shanghai Taijing Robot Co Ltd, which will run the center. (source: China Daily)

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Environment (including climate change)

NO Enhances PSII Recovery Process of Tall Fescue under Heat Stress

Temperatures above the normal optimum are sensed as heat stress in plants. As the global temperature rises, the impact of heat stress on plants growing becomes more and more significant. Tall fescue (*Festucaarundinacea*), as a major cool season forage and turf grass specie grown in the temperature regions of the world, is sensitive to the heat stress. Nitric oxide (NO) mediates plant responses to heat stress. Therefore, it is of great importance to study the role of NO in tall fescue in photosynthetic recovery process under heat stress. In order to investigate the protective role of NO in the recovery process of photosystem II (PSII) in tall fescue against heat stress. Postdoctor CHEN Ke under the supervision of Prof. FU Jinmin from Wuhan Botanical Garden (WBG) conducted the exogenous addition of NO donor and the NO scavenger along with synthesis inhibitor comparatively to study the role of NO in recovery process of tall fescue against heat stress. Chlorophyll a fluorescence measurements were employed to study both the effects of NO on the photosynthetic apparatus as well as the productivity of photosynthetic organisms. (source: CAS)

New Chemical Helps Plants Fight Drought

Scientists discovered a new chemical that mimicks ABA, a key phytohormone that helps plants cope with drought and other environmental stresses. The phytohormone abscisic acid (ABA) plays a critical role in plants to combat

abiotic stresses, such as drought, salinity and extreme temperatures. Data from the World Bank shows that drought stress accounts for more than half of global crop losses and the situation is getting worse with climate changes presumably caused by global warming. ABA can be used in agriculture to help different crops survive severe drought. However, the use of ABA in agricultural applications has been hampered by its chemical instability and expensive cost of industrial production of ABA. A collaborative research led by Dr. ZHU Jiankang of the Shanghai Center for Plant Stress Biology has discovered a chemical alternative, ABA Mimics 1 (AM1), that can mimic ABA function in enhancing drought resistance in plants. (source: CAS)

Researchers Investigate How Woody Plants Integrate Information about Nutrients and Neighbors in Root Foraging Processes

Root foraging is one of the most important aspects of plant behavior, and is significantly affected by environmental stimuli, such as nutrient conditions and neighboring competitor roots. Therefore, exploring the mechanism by which plants when simultaneously exposed to nutrient heterogeneity and the roots of neighbors integrate information about nutrients and neighbors in root foraging processes may help to advance understanding of the relationships between plant root systems and the environment. Root architecture is defined as the spatial configuration of the root system, which plays a key role in belowground resource acquisition, and is a superior indicator to measure plant root foraging ability. In addition, active nutrient absorption is mainly achieved by the first three orders of the root system, particularly the first-order roots (tiny lateral branches at the very distal end of the root system). Thus, to effectively measure the root foraging ability, the first three root orders should collectively be taken into account, rather than the entire fine root system, when determining the root architecture indicators for woody plants. Recently, Prof. LIU Qing' team from Chengdu Institute of Biology performed an experiment in which the spruce (Picea asperata) seedlings root architecture indicators constructed by the roots possessing essential nutrient uptake ability were measured when simultaneously exposed to nutrient heterogeneity and the roots of neighbors. (source: CAS)

Pearl River Delta soil exceeds heavy metal levels

Nearly a third of the soil in the Pearl River Delta, one of China's most developed areas, contains excessive levels of heavy metals, Guangzhou Daily reported on Thursday. The main metals that exceed the standards are mercury, cadmium and arsenic, according to Zeng Sijian, an agricultural official of Guangdong province. In places such as Foshan and Nanhai, both in Guangdong province, more than half the soil contains an excessive level of heavy metals, according to the report. (source: China Daily)

China to spend big improving forest coverage

The State Forestry Administration said on Wednesday that the central government will spend 212.9 billion yuan ($34.3 billion) by 2020 to fund forestry projects as part of efforts to improve the country's environment. The money will be used to foster 21.67 million hectares of forestry and increase China's forest coverage rate by 4.1 percent by 2020, the ministry said. (source: China Daily)

Jiaolong discovers iron-manganese deposits in South China Sea

This photo taken by China's manned submersible Jiaolong on July 3, 2013 shows iron-manganese deposits in South China Sea. Extensive iron-manganese deposits were discovered by Jiaolong here on July 3. Photo: Xinhua. (source: Global Times)

EU firms eye China's clean-tech market

An increasing amount of energy needed to fuel China's urbanization has caused serious concerns about carbon emissions and environmental pollution, but also opened up a market for some of the best clean-technology companies in Europe. China overtook the United States as the world's largest producer of carbon emissions in 2007, and two years later its energy consumption also surpassed that of the US to become the largest. When the World Bank identified the 20 most polluted cities in the world, 16 were in China. The severity of China's pollution was further highlighted by this January's heavy smog in Beijing, when the level of PM2.5 (air pollutants with a diameter of 2.5 micrometers or less) at its peak was 36 times higher than the World Health Organization's recommended standard. Meanwhile, Europe's increasingly ambitious goals to reduce emissions has produced many globally leading businesses in the clean-tech and energy efficiency field, and many of them are now keen to bring their technologies and expertise to China. (source: China Daily)

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Energy

New-concept Batteries for Lithium and Sodium Recovery

The increasing deployment of renewable energy sources such as solar and wind power requires a commensurate increase in energy storage capacity to integrate them into the grid. Batteries are good means of storing the electricity in the form of chemical energy. Owning to good safety, high ionic conductivity and low cost, aqueous ion batteries are potentially advantageous over their organic counterparts for large-scale energy storage. In contrast to lithium, sodium is more abundant and economical. Therefore, sodium-ion battery is considered as a potential alternative to current Lithium-ion battery for large-scale energy storage. However, materials suitable for aqueous sodium-ion

battery are very limited, which is identified as the major hurdle for the widespread application. To overcome above hurdle, a team led by Prof. LIU Zhaoping from the Advanced Li-ion Battery Engineering Lab, the Ningbo Institute of Materials Technology and Science , the Chinese Academy of Sciences (NIMTE), firstly proposed an innovative concept of Li^+/Na^+ mixed-ion electrolytes to construct rechargeable batteries, as shown in Figure 1. In such batteries, one side involves the immigration of Li^+ between electrolytes and electrode, and the other one refers to the exchange of Na^+ between electrode and electrolytes. They are unlike traditional “rocking-chair” lithium-ion batteries. Thus Li^+/Na^+ mixed-ion batteries pave a new route to the energy storage system. (source: CAS)

Strides made in China's nuclear power tech research

China has made great strides in the technological research into the control rod drive mechanism, a key piece of equipment for nuclear power plants, according to a ministry statement. The Ministry of Science and Technology (MST) made the announcement in a brief statement, citing progress made in a government-funded research project carried out by state-owned China General Nuclear Power Corporation (CGN). CGN launched the "Research of Control Rod Drive Mechanism for Mega-Kilowatt-Class Pressurized Water Reactor" project in 2011 as part of the country's efforts to break foreign monopolies on bottleneck technologies. Scientists with the project have completed research into and production of China's indigenous control rod drive mechanism for generation II+ nuclear power plants, including all the performance tests and operation life tests, MST said. The project team has also completed designs and production and are conducting related tests on the control rod drive mechanism for the generation III, 1,700-megawatt nuclear power plant, it added. The ministry said some kinds of products, which are part of the research results, have been provided to more than 10 domestic reactors and will gradually replace imported alternatives. China is expected to realize self-reliance in the nuclear power plant control rod drive mechanism through government-backed research projects in related areas, the ministry commented in the statement. (source: Xinhua net)

China eyes fivefold jump in solar capacity

China is aiming for a fivefold increase in solar power generating capacity by 2015 to shore up domestic solar panel makers that are struggling with overcapacity. The country aims to install about 10 gigawatts of solar capacity annually from 2013-2015, bringing the total to more than 35GW by the end of 2015, according to a State Council statement posted on the central government's website. The 35GW target, which has been previously revealed by senior energy officials, is higher than the 21GW target announced by the National Energy Administration last year. Boosting the domestic market will help Chinese solar panel makers, the world's No. 1 producers, to cut their reliance on foreign markets at a time when trade disputes with Europe and the United States are hitting China's exports. The State Council, the country's Cabinet,

also said that China will encourage mergers and acquisitions in the domestic industry and urged banks to provide credit support for big and efficient solar panel producers. (source: China.org)

Planned Guangdong nuclear fuel project canceled

A planned nuclear fuel processing project in South China's Guangdong province has been canceled following local residents' opposition, local authorities said Saturday. The planned Longwan Industrial Park project, located in Zhishan Township in the city of Heshan, has been canceled, according to the municipal government of Jiangmen, which administers Heshan, and sources from the China National Nuclear Corporation, builder of the project. Many local residents expressed opposition to the project after it was made public by the Heshan government on July 4, said Wu Yuxiong, mayor of Heshan. The public's opposition was mainly due to safety worries and environmental concerns. The planned industrial park, with a designed capacity of 1,000 tonnes of uranium in 2020, will feature facilities for uranium conversion, enrichment and manufacturing of nuclear fuel equipment, involving a total investment of 37 billion yuan ($6 billion). Most of China's nuclear fuel processing plants are currently based in west China, while China's nuclear power plants are mainly based in the eastern coastal region. The cost and inefficiency of long-distance transportation of the fuel prompted the Longwan Industrial Park project, industry insiders said. (source: China Daily)

China boosts handling of nuke emergencies

China has pledged to strengthen its capability to handle any possible nuclear emergencies, according to a plan approved by the State Council on Tuesday. The national nuclear emergency plan, based on a previous edition issued in 2005, stipulates the structure and responsibilities of China's nuclear emergency response system. It sets four levels of emergency response for possible incidents or accidents in civil nuclear stations and lists directions for dealing with accidents that may happen during the transportation of spent nuclear fuel or aerospace vehicles equipped with nuclear devices. By the end of 2012, China, which began to build its first nuclear power station in 1985, had 17 reactors in operation and 28 more under construction. Nuclear power contributes 1.7 percent of China's electricity consumption, according to the China Atomic Energy Authority, which is in charge of coordinating interministerial efforts on nuclear emergency responses. (source: China Daily)

China at center of Asia nuclear energy expansion: IAEA chief

China is at the center of the nuclear energy expansion in Asia, says Yukiya Amano, director general of the International Atomic Energy Agency (IAEA). During an interview with Xinhua on the sidelines of a high-level nuclear power conference here, Amano praised the fast-growing nuclear industry in China and the high safety standards adopted by the country. According to the chief of the

UN nuclear watchdog, there are currently 434 nuclear power reactors in operation across the world and 69 under construction, with two thirds of these new units in Asia. China, along with other major emerging economies, is an established user of nuclear power and has "significant expansion plans," he said. Amano said he gained the impression during his previous visits to China that China's top leaders and engineers are serious about nuclear safety and the country, with which the IAEA has been cooperating closely, is an important partner of the agency. (source: Global Times)

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Transport (including aeronautics)

Chinese amphibian aircraft makes maiden flight

The first China-made amphibian aircraft, Haiou 300, completed its maiden flight in Jingmen city, Central China's Hubei province, on Wednesday, according to chinanews.com. The amphibian aircraft, developed by the China Special Vehicle Research Institute, is China's first, with independent intellectual property rights. At 8.9 meters long and 12.46 meters wide, the aircraft can achieve a cruising speed of 231 km per hour and take off and land on water and land as well as on the highlands below 3,500 meters. With a maximum take-off weight of 1,680 kg and passenger capacity of four to six, the aircraft can be used for business flights, tourism, coastal patrol, search and rescue, environmental monitoring, and forest guard. The airplane had its first test flight in August 2010 and was part of Airshow China in Zhuhai in November 2010. (source: China Daily)

Beijing has world's most delayed airport

Beijing Capital International Airport ranked bottom in the on-time performance report in June, with just 18.3 percent of commercial passenger flights leaving on schedule. Shanghai Pudong International Airport reported the second worst departure record at 28.72 percent, among 35 major international airports. The report was released by FlightStats, a US service that tracks historical and real-time flight information around the globe. Tokyo's Haneda maintained its top spot, with an on-time performance of 95.04 percent. A flight is considered "on time" if it arrives or departs within 15 minutes after its scheduled take-off or landing time. There have been different voices from China's industry insiders over air traffic volume as the cause of flight delays. Civil aviation occupied only 20 percent of air traffic in China, with 80 percent of the flow for military use, while the situation in the US was the opposite, said Wang Junjin, president of Juneyao Airlines in Shanghai. China's air space would be crowded with just over 10,000 operating flights per day, but over 60,000 operating flights per day compete to fly in the US and could still maintain order, Wang added. (source: China Daily)

More cooperation on railway sought

Chinese and European senior officials urged further cooperation through the Sino-Euro railway on Wednesday. The 11,179-km Chongqing-Xinjiang-Europe railway connects Chongqing with Duisburg, Germany, via Kazakhstan, Russia, Belarus and Poland. "I hope the Sino-Euro railway can extend to all 16 Central and Eastern European countries,"said Huang Qifan, mayor of Southwest China's Chongqing municipality, at the Local Leaders' Meeting of China-Central and Eastern European Countries in Chongqing on Wednesday. He said the customs departments of these countries should strengthen cooperation to shorten the time needed to process goods and thus save costs for transporting freight via the route. (source: China Daily)

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Socioeconomic sciences & the humanities, archaeology & paleontology

Xi urges rural development

President Xi Jinping called for more efforts to boost the development of rural areas and promote more urban and rural integration. Even if the number of people living in cities reaches 70 percent of the population, 400 million to 500 million people will still live in rural areas. Those regions must not become deserted and remain only as hometowns in people's memories, Xinhua News Agency quoted Xi as saying. In 2012, about 52 percent of the Chinese population lived in urban areas, a 20 percent increase from the early 1980s, according to the National Development and Reform Commission. Xi urged local governments to promote the simultaneous development of urban construction and modern agriculture. (source: China Daily)

Archeologists push back origin of Chinese characters by 1,000 years

Archeologists in China have confirmed that the inscriptions found on artifacts unearthed in Zhejiang Province represent the earliest record of Chinese characters in history, pushing the origins of the written language back 1,000 years. Archeologists and linguistics experts gathered in Pinghu, Zhejiang Province, Saturday to discuss the meaning of the symbols found on pottery pieces and stone vessels that had been unearthed at the Zhuangqiaofen archeological site between 2003 and 2006. Experts concluded that the symbols represented the earliest known Chinese characters, which could be traced to the Liangzhu civilization, one of China's earliest civilizations dating from the Neolithic Age some 5,000 years ago in today's Jiangsu and Zhejiang provinces, China Youth Daily reported Tuesday. The inscriptions existed some 1,000 years before the oracles, commonly held as the origin of the Chinese language

system. The oracles are inscriptions on turtle shells, and date back to the Shang Dynasty (C.1600-1046BC). (source: Global Times)

Sacrificial pits excavated from central China tombs

Sacrificial pits for horses and chime bells have been unearthed from a cluster of tombs in central China, providing insight into a dynasty about 3,000 years ago, archaeologists said. Researchers are still excavating the Yejiashan Graveyard, in Suizhou City in Hubei Province, believed to have belonged to lords of the Zeng State during the early Western Zhou Dynasty (1046-771 BC). Seven sacrificial pits have been found with horse skeletons buried inside, the first time horse pits from that period have been found in the southern part of China, said Li Boqian, an archaeologist at Peking University. (source: Global Times)

China faces challenges in preserving cultural relics

China's modernization is threatening the survival of its cultural relics, Culture Minister Cai Wu said on Friday. Cultural relics in some places have been damaged or destroyed as a result of development, he said. The minister said China faces a "grave situation" in terms of preserving its cultural relics due to illegal excavation, smuggling and theft. Some intangible cultural heritage has become extinct and ethnic and regional culture is dying off, he said. Cai said the Law on the Protection of Cultural Relics, which was promulgated in 1982 and has been amended several times since then, is no longer effective and must be updated. The Ministry of Culture recently conducted a survey regarding the protection of cultural relics. Survey participants said the government needs to improve efforts to build a comprehensive national network to better preserve cultural relics, according to a statement from the ministry. (source: China Daily)

Top judge underlines fairness and justice

Top judge Zhou Qiang underlined his resolve to restore judicial credibility and uphold the rule of law in his debut speech on Thursday to chief judges from provincial-level courts nationwide. "Any wrong verdicts, once confirmed, must be corrected. This reflects our confidence in the law and is required by justice," Zhou said, calling on the judges to prevent such verdicts from recurring. Zhou, president of the Supreme People's Court, met the judges in Changchun, capital of Jilin province. It was the first gathering of the judges since Zhou, 53, was elected top judge in March. The two-day meeting is scheduled to discuss how to ensure fairness and justice for litigants, with the courts trying to restore their public image, which has been marred by wrong verdicts. He Bing, a law professor at China University of Political Science and Law, said Zhou's speech is expected to guide judges for the next five years. Zhou also urged the judges to strictly follow newly amended legal procedures that highlight the protection of human rights. "Judges must work independently (from governments). They should work with colleagues from other courts to overcome regional and departmental protectionism." (source: China Daily)

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Space

Analysis of Artificial Construction Land and Impervious Surface Areas Based on Remote Sensing Monitoring

Impervious surfaces areas (ISA) is a important indicators in assessing high intensity activities of human land use on the environment/climate impact. It has very important significance in researching urbanization, global environmental change and global urban ecological. Dr. KUANG Wenhui and Prof. LIU Jiyuan from Institute of Geographic Sciences and Natural Resources Research (IGSNRR), and their colleagues carried out a national-scale monitoring of the early 21st century (2000 to 2008) artificial construction land with impervious surface remote sensing monitoring and analysis. (source: CAS)

China launches three experimental satellites

China successfully launched three satellites for scientific experiments into space at 7:37 am Saturday, the Taiyuan Satellite Launch Center said. The Chuangxin-3, Shiyan-7 and Shijian-15 satellites were boosted by a Long March-4C carrier rocket, according to the center in North China's Shanxi province. The three satellites will be used mainly for conducting scientific experiments on space maintenance technologies. This marks the 179th launch boosted by a Long March rocket, according to the center. (source: China Daily)

China launches experimental orbiter

An SJ-11-05 orbiter is launched from the Jiuquan Satellite Launch Center, which is located in northwest China's Gobi Desert, at 5:27 pm Monday. The orbiter will be used to conduct spacial scientific and technological experiments. (source: China Daily)

Tibetan Observatory to be Best in Asia: IAU President

An observatory that is under construction in Tibet is expected to become the best astronomical observatory in Asia after its completion, International Astronomical Union (IAU) President Norio Kaifu said. The observatory, based in Tibet's Ngari prefecture, is located in an ideal place for astronomical monitoring due to its high altitude, transparent atmosphere and mild weather, Norio Kaifu said during an inspection tour in Tibet from June 28 to July 1. The Ngari observatory, perched at an altitude of 5,100 meters above sea level, can compete with Hawaii's Mauna Kea Observatories, the world's largest observatory for optical, infrared and submillimeter astronomy, he said. The

Ngari observatory, the first observatory built above 5,000 meters in the northern hemisphere, will also help to promote cooperation among Asian astronomers, he said. The observatory will enable scientists from the Chinese mainland, Taiwan, Japan and the Republic of Korea to build large-scale telescopes and carry out joint research programs, said Yao Yongqiang, chief researcher with the National Astronomical Observatories of the Chinese Academy of Sciences. The observatory, built with a total investment of more than 30 million yuan (4.87 million U.S. dollars), is expected to be completed within ten years, Yao said. (source: CAS)

Chinese space probe reaches record height

China's space probe Chang'e-2 has arrived in an outer space about 50 million km from the Earth, marking a new height in the nation's deep space exploration, Chinese scientists said on Sunday. The probe is now "in good conditions", the State Administration of Science, Technology and Industry for National Defence said in a statement. Chang'e-2 will travel to a distance as far as 300 million km away from Earth, according to calculations done by scientists from the Beijing Aerospace Control Center. (source: China Daily)

Space breeding seeds to bring benefits to TCM

The growth cycle of seeds for two plant species, which are used as raw materials for traditional Chinese medicine (TCM), could be shortened after being bred in space, a medicine company announced on Thursday. The breeding in space took place during China's recent Shenzhou-10 spacecraft mission. The Chengde Jingfukang Pharmaceutical Group Co., Ltd, in north China's Hebei Province, is now preparing for further breeding of Amur Cork-tree Bark and Atractylodes chinensis seeds at its base, said Li Shenming, company chairman. With the experience in space, the growth cycle of the seeds will be shortened and the effective components they contain will be strengthened, therefore, this will bring relief to any supply shortage of TCM raw materials, according to Li. (source: Global Times)

China to offer APSCO states remote-sensing satellite data

China will provide remote-sensing satellite data to Asia-Pacific Space Cooperation Organization (APSCO) member states starting on Friday, according to an APSCO council meeting held on the same day. The China National Space Administration (CNSA) and APSCO signed an agreement on Earth-observing satellite data-sharing at the meeting. According to the agreement, CNSA will provide remote sensing satellite services to all APSCO member states. The data will be used to aid in natural disaster reduction and relief in the Asia-Pacific region, according to the agreement. CNSA director Ma Xingrui, was elected president of the APSCO council during the meeting. APSCO is an inter-governmental organization established in 2005, with China as its host and one of its nine member states. (source: Global Times)

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People & Higher Education

USC, China unveil joint education program

The University of Southern California and the China Scholarship Council established an international partnership to support outstanding Chinese students pursuing PhD degrees at USC. USC and the CSC will both contribute to the scholarship funding program, which will be available beginning fall 2013 for up to 30 Chinese doctoral students accepted into any of the 17 professional schools at USC or the USC Dana and David Dornsife College of Letters, Arts and Sciences. (source: China Daily)

China to develop vocational education for farmers

The Ministry of Education (MOE) said on Monday that it will accelerate the development of vocational education for professional farmers in order to safeguard food security and promote agricultural modernization. Lu Xin, vice minister of MOE, said at a symposium on vocational education in rural areas that establishing and improving a vocational education system for professional farmers will a major task for the ministry in the future. Lu added that the focus of the work will be training foregoers and production management talents. A joint study by the MOE and the Ministry of Agriculture has found that China's rural labor force is both shrinking and aging. The study also found that 70 percent of rural laborers have a primary and junior middle school education. The number of junior and senior high school graduates who choose to study agriculture is declining sharply. As of the end of 2012, there were 12,663 secondary vocational schools in China, with 21.13 million students. About 2.19 million students were majoring in agriculture, forestry and fishing, accounting for only 10.35 percent of the total. (source: Global Times)

University adds personal touch

"We want them to feel the school's cultural atmosphere, and that a university is more than a place of academic research, but also of cultural inheritance."

JIA WENXING
RETIRED PROFESSOR AT SHAANXI NORMAL UNIVERSITY

Many students consider their university admission letter one of their most important mementos because it marks the beginning of a new chapter in their lives. As students proudly display their admission letters online, 4,570 students who will soon go to Shaanxi Normal University are the envy of many - each of their letters is an artwork of brush and ink by the school's retired professors. Starting on July 10, eight retired professors from Shaanxi Normal University - their average age was 70 and the oldest was 80 - returned to college for six hours a day to handwrite the admission letters. They have already completed more than 3,000 letters. "Hopefully, the students can feel our affection and expectations for them when they think of how we wrote the letters stroke by stroke," said Jia Wenxing, one of the retired professors who is head of the university's calligraphy association. "We want them to feel the school's cultural

atmosphere, and that a university is more than a place of academic research, but also of cultural inheritance." (source: China Daily)

China to tighten assessments for postgraduates

The assessment of postgraduates will be tightened as part of postgraduate education reform, according to a guideline issued by the Ministry of Education, National Development and Reform Commission and the Ministry of Finance on Friday. Postgrad students' academic papers will be more strictly assessed and examined, according to the guideline, which added that those who conduct unethical behavior when writing their dissertations will lose their degrees. The guideline said those who teach students who commit academic fraud will be punished, adding that teachers should make more efforts to teach their students about ethics and scientific principles. The guideline also specifies a supervisory mechanism jointly set up by educational departments, academic institutes and social organizations. Learning institutions' right to grant degrees will be revoked if multiple cases of academic fraud are spotted, it added. In 2012, China had 1.72 million incumbents working on postgraduate degrees. (source: China Daily)

A dream home helps build the future

Liu Yang, a student from Peking University majoring in architectural design, said he cannot wait to see his ideal house become a reality. The house, named Etho, was jointly designed by around 160 students from Peking University and the University of Illinois. The construction of the 99-square-meter solar house with two bedrooms and a bathroom began in mid-June near the east gate of Peking University. The construction site is temporary. The house, divided into four modules, will be transported to Datong, Shanxi province, in July when it is completed. It will be exhibited during the Solar Decathlon China 2013, a contest jointly organized by the National Energy Administration, the US Department of Energy and Peking University. The decathlon is an international event that has been held in the United States and Europe for the past decade. This year will be China's inaugural event as well as the first competition in Asia. Participants have to design and build solar-powered houses. Participants include 22 teams from 35 universities with students from more than 35 nationalities in 13 countries and regions. (source: China Daily)

Caution urged in seeking experts from abroad

China should play smart and be cautious when headhunting international talent, senior foreign experts said on Monday. Recruiting strategies must link experts' skills and competencies to the specific needs of institutions, and experts' contributions must meet expectations, said Natarajan Ishwaran, a visiting professor at the Institute of Remote Sensing and Digital Earth under the Chinese Academy of Sciences. Ishwaran made the remarks on Wednesday at a seminar in Beijing to celebrate the 30th anniversary of Deng Xiaoping's famous

speech on importing intellectual resources. The number of foreign workers has increased in the past three decades, reaching more than 520,000 in 2011, according to the administration. The State Administration for Foreign Experts Affairs "can help make sure that it is easy for foreign experts to come and live and work in China", a speaker at the celebration said. "The laws on visas, tax, permits and family support must be as friendly as possible." (source: China Daily)

University of Hong Kong admits 16 top gaokao scorers

The University of Hong Kong has enrolled 16 students who achieved the highest scores in their provinces, municipalities or cities on the national college entrance exam in 2013, Beijing Times reported Thursday. Altogether 303 excellent students from the mainland were admitted to the University of Hong Kong this year, out of 12,513 mainland applicants, which means one for every 41 applicants. The number of applications it received marks a record high, although the number of students who took the exam dropped for the fifth year in a row. (source: China Daily)

Bank unveils most valuable cities for education

Bank of Communications Limited, one of the largest banks in China, ranks Montreal, London and Hong Kong as the most valuable cities for education in a research paper published on Tuesday. The 80-city list, called the overseas returnee index, not only looks at the quality of universities, but at other factors that may affect education costs, offering a comprehensive view of studying in these cities. Many Asian cities are catching up thanks to their comparatively high quality-cost ratio, with Hong Kong, Singapore, Seoul and Taipei featuring in the top 30. Beijing finished 27th. (source: China Daily)

Grants to Lure Native Talent Back to China

China is offering financial grants and other benefits to boost its ability to lure top experts in science and engineering back home from posts overseas. Zhan Wenlong, vice-president of the Chinese Academy of Sciences, said it is making full use of recruitment plans such as the One Hundred Talents Program and One Thousand Talents Program, which are aimed at attracting foreign and Chinese experts, to ensure candidates are provided with good scientific research facilities and living conditions. "For those selected through these programs, we pay them 2 million yuan ($326,000) as a startup fund and 600,000 yuan for resettlement, making their research and living conditions as good as they are abroad," he said. The academy has so far attracted 2,493 Chinese returnees since the One Hundred Talents Program was first launched in 1994. Apart from providing good conditions for scientific research, the Chinese Academy of Sciences also works on guaranteeing basic living conditions. Deng Maicun, secretary-general of the academy, said in addition to the settlement allowance, the academy has the 3H Project, which aims to

relieve overseas experts' housing and health concerns and give them a feeling of being at home. (source: CAS)

Tournament to reveal physicists of the future

A competition to discover the best young scientist in their field will be held in October. The China Young Physicist Tournament will be hosted by the School of Physics at Nankai University and is sponsored by the Polish embassy to China. The winner will take part in the International Young Physicist Tournament. Questions are given to the contestants six months ahead of the final. The October event will feature debates and arguments over approaches to solving problems and formulas arrived at. (source: China Daily)

Educators aim to spur more innovation

Educators called for universities in China to work more closely together to foster creativity and innovation among the students. "In the past few years, we have made greater efforts to foster creativity among our students...so that they may apply the knowledge and theory they acquire in classrooms into innovative endeavors and various enterprises," said Tao Jian, president of the University of International Relations in Beijing. Tao made his remarks at a weekend forum encouraging innovation at universities. The University of International Relations and the state of Ohio's Marietta College jointly hosted the forum, held from June 29-30. "We brought in many international teachers and students to the campus to share their experiences," Tao said. (source: China Daily)

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Research infrastructures

China's First L-band 10MeV/40kW Electron Accelerator for Industrial Radiation Processing Developed

After five years of R&D, Chinese scientists developed the first domestic electron accelerator in the L-band with 10 MeV ~40kW. Jointly developed by the Institute of High Energy Physics and Wuxi EL Pont Group, the new electron accelerator passed the acceptance test on July 10. An average beam power of 40 kW was achieved, which was the top level of the same kind of the linac in the country. To develop the L-band 10MeV/40kW electron accelerator for industrial radiation processing, scientists utilized technologies of high pressure, high voltage, vacuum, electronics, computing, microwave and radiation dosimetry etc. Since 2008, a joint team was set up and made breakthrough in key technologies of the triode electron gun, high power water cooling system and high power scanning system, etc. "Compared to the gamma radiation (cobalt 60), the industrial accelerator has the superiority of condensed beam source, higher

efficiency, no radioactive wastes and immeasurable potential values", introduced Mr. ZHANG Xianghua, the Chief Manager of the Wuxi EL Pont Group. The irradiation industry is broadly defined to include the processing of materials by gamma radiation and industrial accelerators. Materials which use irradiation as part of their manufacturing process today include medical products, plastics, rubber, wire and cable, some spices, and a small volume of certain food products. It greatly benefits to the society and the economy development. (source: CAS)

Jiaolong begins 2-month exploration in Pacific Ocean

The Jiaolong, China's manned submersible, departed aboard its support ship, the Xiangyanghong-09, from the port city of Xiamen on Friday for two months of exploration in the Pacific Ocean. During the voyage, the sub will submerge for scientific research focused on polymetallic nodules in the northeast Pacific and cobalt-rich crusts in the northwest Pacific. The exploration is part of a 103-day experimental application mission that was conducted with the sub's voyage from June 10 to July 10 in the South China Sea. The Jiaolong carried out ten dives in the month-long voyage. Its activities included conducting research on cold seeps and the Jiaolong Seamount, which was named after the sub after scientists aboard the vessel discovered it. With ten scientists aboard this time, the Jiaolong will explore deep sea resources, paving the way for future mining activities. (source: Global Times)

Int'l Space Science Institute Sets up Beijing Branch

The International Space Science Institute established its Beijing branch (ISSI-BJ) where scientists from all over the world will conduct advanced multi- and interdisciplinary studies. Launched by the ISSI, based in Bern, Switzerland, and Beijing-based National Space Science Center of the Chinese Academy of Sciences, ISSI-BJ will contribute to a deeper understanding of the results from different space missions, ground based observations and laboratory experiments. It will also add value to results through multidisciplinary research. As the only branch approved by ISSI's Board of Trustees to share its brand, its Science Committee and the operating tools, ISSI-BJ will advance the internationalization of space science research, as well as provide an important window on Chinese space science to the scientific community, according to a statement of the branch. The program of ISSI-BJ covers many disciplines of space science, including solar and space physics, astronomy and astrophysics, planetary science, astrobiology and microwave gravity science, and earth sciences from space, the statement said. This year, ISSI-BJ will support one international team and four forums on science topics, including X-ray timing and polarization, as well as solar polar orbit observation. ISSI was established in 1995 and funded by agencies including the European Space Agency, the Swiss federal government, the Russian Academy of Sciences. (source: CAS)

Tibetan observatory to be best in Asia: IAU president

An observatory that is under construction in Tibet is expected to become the best astronomical observatory in Asia after its completion, International Astronomical Union (IAU) President Norio Kaifu said. The observatory, based in Tibet's Ngari prefecture, is located in an ideal place for astronomical monitoring due to its high altitude, transparent atmosphere and mild weather, Norio Kaifu said during an inspection tour in Tibet from June 28 to July 1. The Ngari observatory, perched at an altitude of 5,100 meters above sea level, can compete with Hawaii's Mauna Kea Observatories, the world's largest observatory for optical, infrared and submillimeter astronomy, he said. The Ngari observatory, the first observatory built above 5,000 meters in the northern hemisphere, will also help to promote cooperation among Asian astronomers, he said. The observatory will enable scientists from the Chinese mainland, Taiwan, Japan and the Republic of Korea to build large-scale telescopes and carry out joint research programs, said Yao Yongqiang, chief researcher with the National Astronomical Observatories of the Chinese Academy of Sciences. (source: Global Times)

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International S&T relations

China, US sign 6 new EcoPartnership pacts

China and the United Sates on Thursday expanded their EcoPartnership program with the signing of six new partnerships to reduce greenhouse gases emissions and improve energy efficiency as well as create jobs. The new agreements will add six partnerships to the original group of 18, said Chinese State Councilor Yang Jiechi at a signing ceremony during the fifth round of China-US Strategic and Economic Dialogue in Washington. The EcoPartnership program was established in December in 2008 under the US-China Ten-Year Framework for Cooperation on Energy and Environment to formally link stakeholders from both countries to work on clean energy and sustainable development. (source: China Daily)

Climate change 'new highlight' for Sino-US ties

A senior Chinese official said here Wednesday that climate change will be "a new highlight" of Sino-US cooperation as the two countries work together to create a new type of major-country relationship. Xie Zhenhua, deputy head of the National Development and Reform Commission, made the remarks at a press conference on the first day of the two-day fifth China-US Strategic and Economic Dialogue (S&ED) in Washington. Xie said a working group on climate change, which was initiated after the visit of US Secretary of State John Kerry to China in April, has identified five priority areas to further strength bilateral

cooperation. The areas Xie mentioned also included reducing emissions from heavy-duty and other vehicles, promoting smart grids, increasing energy efficiency in buildings and industry, strengthening capacity building, as well as improving greenhouse gas data collection and management. (source: China Daily)

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