RESEARCHERS IN MOTION

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EURAXESS LINKS CHINA

Dear colleagues,

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

This month's ***EU Insight*** comes back on the 2nd International Conference on Research Infrastructures which was held earlier this month, on 2nd to 4th of April, in Athens, Greece.

This edition's researcher's interview features Dr. Hu XiaoBing, from the School of Engineering, University of Warwick, and currently seconded at the State Key Laboratory of Earth Surface Processes and Resource Ecology, Beijing Normal University (ESPRE-BNU), under a Marie-Curie Outgoing Fellowship. The fact that a Chinese national can be funded to go from Europe to China highlights the true global dimension of the European Union Marie-Curie fellowships. In this very interesting interview, Dr. Hu, who was one of the speakers of last April 17th EURAXESS Share event in Beijing, shares further his experience of advancing his research through international mobility and transdisciplinarity.

Besides briefly reporting on the EURAXESS Share event mentioned above and held at the Sino-German Center for Research Promotion on 17th of April, we also announce two upcoming EURAXESS Share events in this newsletter: the **3rd Researchers' Night in Beijing (7 May, 7 PM)**, and the first **Researchers' Night in Shanghai one week later (15 May, also 7 PM)**. Researchers of all ages, from all nationalities and research fields, both from public and private sectors are welcome to register online now and attend these casual and very friendly networking events.

Regarding announcements, two new major programmes funding research collaborations and mobility between Europe and China have been announced this month: The **EU-China Research and Innovation Partnership (ECRIP)**

has been established by the European Commission and offers 4 Million Euros to fund mobility of EU researchers to China in the framework of institutional partnerships. The call opened on 4th of April and will close on 23rd of May. The second programme was announced on 9th of April by the UK Chancellor. The £375 million Newton Fund is intended to strenghten research and innovation collaobration between the UK and a whole range of developing countries, including China. Details about how to apply for funding under the Chinese part of the fund, currently called Newton **UK-China Research and Innovation Partnership**, should be released in the forthcoming months.

We hope that this edition of the **EURAXESS Links China Newsletter** will provide you some useful and practical information. Do not hesitate to let us know, should you have any comments to make or announcements you would like to include in our next edition.

We wish you a pleasant read,

Jacques de Soyres

Andrea Strelcova

EURAXESS Links China Country Representatives

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 the European research landscape and in conducting research in Europe or with European partners.

Please email 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.

Editors: Andrea Strelcova, Jacques de Soyres, EURAXESS Links China Country Representatives

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1 EU Insight – 2nd International Conference on Research Infrastructures

Since 2012 the former biennial European Conferences on Research Infrastructures have been opened to address an **international audience** on **global research infrastructures**. Under this new scope, the second International Conference on Research Infrastructures (ICRI) was held in Athens, from 2-4 April, 2014.

ICRI 2014 offered a high level international forum where key stakeholders could meet, discuss and contribute to bringing forward global issues related to Research Infrastructures. It was co-organised by the European Commission and the Greek EU Presidency of the European Union.

The conference attracted more than 800 international participants during three days and included an exhibition of demonstrations and videos of international research infrastructure projects.

In her launching keynote speech, the European Commissioner for Research, Innovation and Science, Máire Geoghegan-Quinn stressed ***"the importance of Research Infrastructures as centres of innovation and of knowledge transfer to industry and society at large."***

Research infrastructures play a vital role in the advancement of knowledge and technology. Scientific progress would be impossible without state-of-the-art super-computers or, for instance, large-scale laser systems. Responding to challenges like climate change is also greatly helped by environmental research facilities such as deep-sea-floor observatories or icebreaker research vessels, to name only a few.

The key objectives of the ICRI 2014 included:

- highlighting the essential role of global research infrastructures in addressing grand challenges at all scales: national, regional, continental and global
- reflecting on the needs and challenges that arise during the development and operation of global research infrastructures at all these levels
- presenting the main characteristics of global research infrastructures and identifying the challenges and drivers for collaboration at an international level.

Plenary sessions were held on the issues of *big data management, innovation potential for research infrastructures, governance of research infrastructures and research infrastructures for global challenges*. The key topics of the parallel

The European Research Infrastructures **have a place within the Excellent Science pillar of Horizon 2020 with an allocated bu**dget of 10% in the whole pillar, a total of 2.5 billion euro to develop and support:

- 1000 research infra-structures available for all European and non-European researchers through the EU's support
- 60% of ESFRI infra-structures must be launched by 2015

Interviews from the ICRI highlighting the objectives of different participants can be found here!

sessions at ICRI 2014 included *marine research infrastructures, palaeoanthropology and cultural heritage, food security and e-infrastructures*.

A major difficulty in setting up such research infrastructures between EU countries is the lack of an adequate legal framework allowing the creation of appropriate partnerships. Existing legal forms under national law do not fulfil the needs of these new European infrastructures. The same applies to legal forms under international or EU law.

It is in this context that the European Commission, responding to requests from EU countries and the scientific community, proposed a legal framework for a European research infrastructure (ERI) adapted to the needs of such facilities.

In August 2009, the community legal framework for a European Research Infrastructure Consortium (ERIC) entered into force. This specific legal form is designed to facilitate the joint establishment and operation of research infrastructures of European interest.

Member States, Associated Countries, third countries and intergovernmental organisations can be members of an ERIC. However, a state may decide to be represented by one or more public entities or private entities with a public-service mission, e.g. research organisations or research councils. Following the application to the European Commission, the typical timing for the decision could be between 4 and 8 months.

Sources:

[1] International Conference on Research Infrastructures

[2] Launching speech ICRI by Máire Geoghegan-Quinn

[3] European Research Infrastructures Consortium (ERIC)

2 Feature

"Meet the Researcher": Dr. HuXiaobing, Marie Curie Outgoing fellow in School of Engineering, University of Warwick, seconded at the State Key Laboratory of Earth Surface Processes and Resource Ecology, Beijing Normal University (ESPRE-BNU).

Dr. Hu Xiaobing is a Marie Curie fellow at the School of Engineering, University of Warwick. He is going back to the UK now after two years of secondment at the State Key Laboratory of Earth Surface Processes and Resource Ecology, Beijing Normal University (ESPRE-BNU).

The **State Key Laboratory of Earth Surface Processes and Resource Ecology** (Beijing Normal University) is an applied geology and ecology research laboratory. ESPRE scientists and engineers focus on four broad research themes: earth surface processes, resource ecology, earth surface system modelling and simulation, and sustainable regional development model. The lab is also an educational centre for students pursuing master and doctoral degree. It hosts post-doctoral programs as well and offers collaboration opportunity for domestic and international scholars. (Source: ESPRE BNU)

Dr. Hu, can you share your background and research career to our readers?

I did my undergrad and masters in China, PhD and post-doc in the UK. I moved to Warwick for my second research job which is when I applied for the Marie Curie fellowship. I've got just over ten years of research experience, including my PhD. As a Chinese person, I needed at least five years research experience in Europe to be eligible for the fellowship thanks to which I was seconded to China. My background is in control theory, computer science. But before I started the research project funded by Marie Curie, most of my work focused on traditional research areas within my discipline. Thanks to the fellowship, I could explore my potential beyond their limits.

The Marie Skłodowska-Curie fellowship led you into a more multidisciplinary research. Is that the reason why you applied?

You know, before I applied, I was a bit worried about my career. I realized that control theory and research in computer science is in many ways quite mature. It is difficult to make new advance. A lot of work has been done in these areas and you can only do small modifications. So I was thinking where to find my next research topic, how to make my career more colourful, and more potentially successful… And then I went to a workshop where I met some researchers from the Beijing Normal University. They offered me a pilot research, and then I realized that this research - on climate change, natural disaster, and risk management - could be precisely applied to my knowledge. But at that time, I thought it was too risky to switch to a new area without substantial support from people, and financial support, too. I thought I would have to spend quite some time and energy studying the new field first. So although this was a good area, at that time I didn't have the guts to do it. Then I learned about the European Marie Curie fellowships. It favours multidisciplinary research projects; it aims to give new people new experience, new training, from new areas. This was perfect for me.

So you met the people from your host institution in China quite a while before you applied for the fellowship.

Yes, I knew exactly what people I would work with, what I would work on. I met them at a workshop in China – so it is all quite a coincidence. Without such a starting point, I think the chance to get the fellowship would be much lower.

It's a prestigious fellowship but you were lucky to find a good host institution in China as well.

Definitely. In the future, when I go back to the UK, I will keep my relationship with the BNU and my Chinese partners. But you know, if you haven't spent enough time in China beforehand, it might be hard to find a host institution. In China, in the past 30 years of reform and opening, things are changing fast, but some areas are still somehow restricted to Chinese themselves only. One example is Chinese funding for overseas researchers. Compared with European funding for non-Europeans – or American for non-Americans – which are very generous, in China, they focus on funding their own researchers. They have little interest in funding overseas researchers, with the exception of maybe overseas Chinese.

Marie Skłodowska Curie Actions are European research grants available to researchers regardless of their nationality or field of research. In addition to generous research funding scientists have the possibility to gain experience abroad and in the private sector. The **Individual Fellowships** under MSCA are either European Fellowships or Global Fellowships.

European Fellowships are held in EU Member States or Associated Countries and are open to researchers currently within and outside Europe. **Global Fellowships** are based on a secondment to a third country (such as China) and a mandatory 12-month return period to a European host. The current application deadline for both is September 2014.

Did you know other Marie Skłodowska-Curie fellows at Warwick?

Yes, as there are quite a few. Every year I guess three or so. But usually the fellows come to Warwick to pursue their research, whereas I have moved away from Warwick to China – I was the first one to do that. At the same time, I will soon go back to the UK for the final year of the fellowship, and I'd like to stay and find a good permanent position – which is something the fellowships is good for.

Can you give some tips about the application process to the Marie Skłodowska-Curie fellowship? How long did it take and what helped you most?

The fellowship emphasizes inter-disciplinarity. In your research proposal, you need to make sure you touch on something you don't know much about, and your proposal will expand your knowledge in new areas. In my personal experience, a lot of researchers are at an early career stage, and they should keep their mind open to other people, especially to more experienced researchers and related admin staff. For example, the research officer at Warwick helped me a great deal; she read my proposals, carefully checked everything and made suggestions according to her experience. She told me what the research proposal feels like to a general reader, and I could reflect on that and refine it. So I owe a lot to her. But she also told me a few other researchers didn't listen to her. They ignored her advice, because she was not a researcher herself, and they thought she was there only for the paperwork. But I always made the effort to discuss things with her, and it turned out

important. I also learned a lot from applying to a UK EPSRC fellowship, where I made it to the third round but in the end didn't get it. So, it's important to let other people help you. It's important to listen to general readers - don't treat people as experts in your area! You don't know who is going to read the proposal and what kind of background they have.

How did it feel when you came back from the UK back to China? Did you have any "reverse culture shock" in the new research environment?

Yes, I did; for me, doing research in the UK is much simpler. You don't have to consume so much energy on tasks that have little to do with your research. I'm a visiting researcher in Beijing, but in some ways I am treated as a member of staff, and there is a lot of administration work and regulations I have to follow. Some researchers here told me they spend half of their time only on administrative issues, networking, outreaching activities – half of their time goes neither into research, nor into teaching, at all. So imagine that people spend a lot of time trying to get funds for their research… and then they realize they have no time to do the actual proposed project! This is a dilemma which can't do anything good to research, and this culture was difficult for me to cope with. In China, I had some experience I gathered during my master's, so I knew a bit about that. But still, I found it difficult to go back to it.

How about your plans to the future?

Firstly I want to start focusing on new ideas to apply for grants in the UK. And I also want to find a permanent academic job. Grant is the highest priority for UK universities and as long as you get that, promotion and a permanent position is not too difficult. Another reason behind the Marie Curie Fellowship is that I wanted to expand my own boundary; I wanted to find new application areas, explore my potential and take it further. And I have gained a great deal of new experience, new knowledge; the fellowship really gave a boost to my career.

Secondly, I want to focus more on the publication of the research I've been working on in China. Before the fellowship, I only published in engineering-related journals. I never thought publishing in a top journal like Nature or Science could be a possibility for me, but now I know I stand the chance. So I definitely want to try. And then I can say to myself - I have changed from a researcher to a scientist!

Dr. Hu, we thank you very much for the discussion.

3 EURAXESS Links Activities

RESEARCHERS' NIGHT 3.0 - 7 May - Beijing: Register now!

The Researchers' Night comes for the 3rd time to Beijing on Wednesday 7th of May. Don't miss this opportunity to meet researchers working on similar topics as you, as well as new faces and useful contacts among the local community of Chinese and international researchers in Beijing.

Researchers of all fields, all nationalities and all levels of seniority, both from public and private sectors, are welcome to join!

Free **registration deadline is 4th of May** - **Register now at researchers-night-beijing.splashthat.com (click on RVSP)**

This a free event, food and drinks will be offered.

Date: Wednesday 7 May

Time: 7 PM

Venue: Bridge Café, 35 ChengFu Rd., Wudaokou (成府路 35 号)

Download the event's Flyer and please feel free circulate it.

Organisers: EURAXESS Links China, European University Center at PKU, ThinkINChina, Understanding Science

RESEARCHERS' NIGHT comes to Shanghai for the 1st time on 15 May: Register now!

The Researchers' Night will come for the 1st time to Shanghai on Thursday 15th of May at the Kaiba Beer Garden.

As for the Beijing editions, this will be an opportunity to reach out to new contacts among the international research community in Shanghai, around a few drinks and in a relaxed atmosphere.

Researchers of all fields, all nationalities and all levels of seniority, both from public and private sectors, are welcome to join!

Free **registration deadline is 12th of May** - **Register now at** researchers-night-shanghai.splashthat.com **(click on RVSP)**

This a free event, food and drinks will be offered.

Date: Thursday 15 May

Time: 7 PM

Venue: Kaiba Beer Garden, Changning - 739 Dingxi Lu (定西路 739 号)

Download the event's Flyer and please feel free circulate it.

Organisers: EURAXESS Links China, Royal Society of Chemistry, ThinkIN China

Thanks to all the participants of the EURAXESS Share Event "Advancing your Research with EU and Chinese Fellowships"

The first EURAXESS Share event of the year, *"Advancing your Research with EU and Chinese Fellowships: Experience-Sharing Workshop"*, was held on 17 April in Beijing at the Sino-German Centre for Research Promotion.

Around 100 participants - Chinese, European and international researchers from all fields and all levels of seniority - listened and engaged in lively discussions with recipients of various Chinese fellowships for international scientists as well as with outgoing and incoming Marie Curie Fellows.

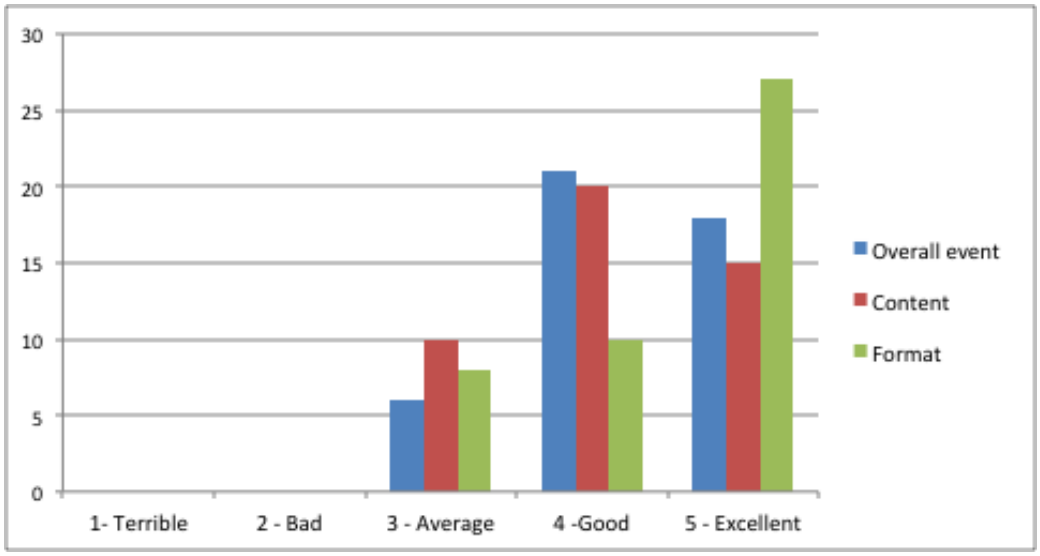
Interesting experiences, personal views and many practical details were shared among all the participants on how to best advance one's research and one's career between Europe, China and other regions of the world.

The increasing number of Chinese funding schemes open to foreigners was mentioned. Also pointed out were their strengths and their limitations, often making it necessary for researchers wishing to advance their research to combine several fellowships.

The Marie Curie fellows highlighted the opportunity offered by the Marie Curie individual fellowships to boost an international research career and the generosity of the grants provided under this scheme.

The event was concluded by a networking dinner cocktail, allowing participants to further discuss and exchange experiences in a very friendly atmosphere.

We hope to see all the participants and more at the next EURAXESS Links China event!



Participants' satisfaction rate (based on 45 responses)

EURAXESS Links China on Social Media: Join our network on Facebook, WeChat (scan green QR code above) or LinkedIn.

4 News & Developments

4.1 EU & Multilateral Cooperation

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

And visit the European Commission Research & Innovation International Cooperation China webpage

Peaceful use of nuclear energy at the heart of EU-China research and cooperation relations

A project aimed at enhancing the capability of China's nuclear supervision agencies and their technical support agencies was kicked off in February at the Nuclear and Radiation Safety Centre in Beijing, which is a branch of the Chinese Ministry of Environmental Protection.

The project, which is supported by China and the EU and funded under EuropeAid's Nuclear Safety Instrument, enjoys great interest from other relevant stakeholders and demonstrates once more the importance of collaborating in the area of peaceful, safe and secure use of nuclear energy with strategic partner countries.

The kick-off meeting in Beijing was attended by representatives of the Joint Research Centre and European Commission which already have long experience of cooperating with Chinese authorities in the framework of the EURATOM China R&D PUNE Agreement, signed in 2008.

Projects like the one kicked-off, as well as collaborative research projects targeted at nuclear safety, clean energy supply as well as nuclear security and safeguards, play an important role in the energy-related political discussions between Europe and China.

Source: European Commission's "International Research Update" – April 2014

Researchers from Hong Kong and Macau welcome Horizon 2020 and Erasmus+

Two comprehensive information seminars promoting the European Framework Programme were held on 20 and 21 February in Hong Kong and Macau. The seminars introduced opportunities for research and innovation collaboration with Europe to the scientific community of the two Chinese Special Administrative Regions reaching an interested audience of around 250 coming from more than 10 different institutions. Representatives of the EU Delegation Beijing's S&T Section and of EURAXESS Links China presented not only what is in it for Hong Kong and Macau in collaborative research but also promoted the mobility and individual grant schemes of the Marie Skłodowska-Curie Actions, the European Research Council and Erasmus+. EURAXESS Links China

representatives explained how researchers can get connected with Europe through the EURAXESS portal and events. The events not only succeeded in passing important messages on Horizon 2020 to an audience keen on collaborating with Europe but also created an excellent networking opportunity for local universities and institutions.

Source: European Commission's "International Research Update" – April 2014

Class 2014 students from EU China Institute for Clean & Renewable Energies (ICARE) were graduated

On March 26th, the ICARE Class 2014 Graduation Ceremony was held in Wuhan. Pr. LUO Qingming, Vice President of Huazhong University of S&T (HUST, Wuhan) and Mr. Jean-Philippe Vanot, President of ParisTech together conferred the HUST New Energy Science & Engineering Master degree and ParisTech Clean & Renewable Energy Master degree to the graduating class. Also in attendance at the ceremony were leaderships from HUST, French Consulate General in Wuhan, ParisTech, European Professors and student parents.

The ceremony was hosted by Pr. Huang Shuhong, ICARE Chinese dean. Mrs. MA Yanlin, Director of degree office of HUST graduate school and Pr. Michel FARINE, ICARE European dean separately announced the decision of awarding Chinese and European diplomas.

Compared to the 37 graduates last year, the job hunting performance of this class is even more gratifying. 10 of them are accepted for PhD study. 50 received offers among which at least 6 are directly connected to renewable energy (1 hydro, 4 wind, 1 solar), which is an important new feature compared to last year.

Read more and see more photos of the awarding ceremony on the ICARE website.

Commissioner Geoghegan-Quinn welcomes European Parliament adoption of €22 billion Innovation Investment Package

European Commissioner for Research, Innovation and Science Máire Geoghegan-Quinn welcomed the adoption on 15 April 2014 by the European Parliament of a package of public-private and public-public research partnerships worth up to €22 billion.

Most of the investment will go to six public-private partnerships in innovative medicines, aeronautics, bio-based industries, fuel cells and hydrogen, electronics and rail transport.

Commissioner Geoghegan-Quinn said: "*This is a 22 billion euro investment in our economy and in a better quality of life. We will work with industry and a wide range of researchers to tackle problems no one country or company can face*

alone. […] I look forward to final approval of the package by the Member States, with a view to launching these partnerships in July."

Over the next seven years, the EU's contribution of €9 billion to the package will unlock an equivalent investment from the private sector and €4 billion from Member States. The EU funding will come from Horizon 2020, the European Union's new €80 billion research and innovation programme.

Source: European Commission

Learn more about these partnerships here.

European Commission awards the best transport projects among young researchers from Belgium, Germany and Italy

Students from Belgium, Germany and Italy were today awarded the top prizes in a Europe-wide contest to find great transport projects among young researchers. The winners received prizes from the Commission at TRA 2014 (#TRA2014), Europe's biggest transport research event which takes place in Paris from 14 to 17 April.

The aim of the TRA VISIONS competition is to stimulate interest among young researchers in the field of sustainable surface transport. The competition is open to university and technical institute students pursuing bachelor or higher degrees. This year, over 50 proposals were submitted by 104 students. Participants had to submit ideas addressing one of the following topics: Industry and Competitiveness, Safety and Security, Logistics and Mobility, Transport Policy Research/Socio-economic/Human sciences, Transport Infrastructures, Vehicles & Vessels Technologies.

The three winners and runners up were:

Road category: Claus Claeys for the project "Metamaterials for vibro-acoustic isolation"

Runners up: Alexander Betz and Paul Wagner (2nd) and Jin Junchen (3rd)

Rail category: Alessandro Nardinocchi for the project "Self pre-stressed concrete"

Runners up: Sophie Damy (2nd) and Nedjemi Rachedi and Eddine Djamel (3rd)

Waterborne category: Morten Ahlström, Kai Schlösser, Julian Herbel, Jan-Christoph Nagel, Julia Ludwig and Tobias Kreklow for the project "Green Offshore Crew Tender Concept"

Runners up: Helio Bailly Guimaraes (2nd) and Konstantinos Mammous, Andreas Alvanis, Panagiotis Tzotzolis, Abdulrahman Shunaiber and Adel Alenezi (3rd)

Source: European Commission

EU Research Highlight – Europe and China join hands in crop breeding research

© Santiago Silver fotolia

Today, we are faced with the challenge of providing safe, nutritious and affordable food for the world's ever increasing population.

To meet this challenge, careful management of land and a shift to systems that produce more from less is key. Accelerated plant breeding for increased yield and better adaptation to abiotic stresses such as wind and intense sunlight have also become crucial.

OPTICHINA (Breeding to Optimise Chinese Agriculture) is a partnership between the European Union (EU) and China focused on crop breeding. The project, which started in 2006, is bridging the gap between crop breeding research activities carried out by European and Chinese researchers.

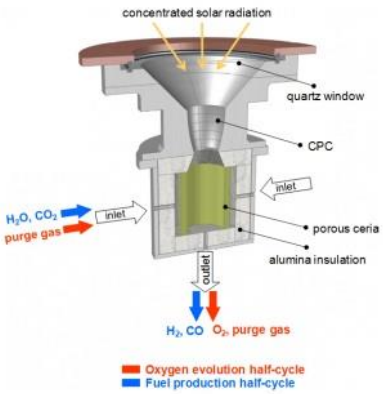
“For a long time, Chinese policymakers have been pushing for increased yield potential while exploring the molecular aspects of crops – much more so than in Europe,” says project coordinator José Luis Araus from the University of Barcelona. “On the other hand, Europe has become a leader in environmental issues. Combining both talents and exchanging best practices has great potential,” adds Araus.

Top international scientists from both China and Europe are exploring new technologies such as molecular genetics that aim to improve the efficiency of crop breeding programmes. The scientists are also focused on improving and combining plant characteristics such as yield components with the aim of creating the optimal plant. Other focus areas include exploring disease resistance and abiotic stress tolerance.

“All this will lead to better, more sustainable crops and the use of fertilisers and other resources that are resilient,” maintains Araus.

OPTICHINA involves training courses, workshops, conferences and fellowships for both Chinese and European researchers. This contact ensures the transfer of knowledge and technology and the continued implementation of best practices. It also builds long lasting links between Chinese and EU scientists working in molecular, genetic, plant breeding and environmental research.

Read more in source: European Commission



EU Research Highlight - From sunlight to jet fuel: EU project makes first "solar" kerosene

An EU-funded research project called SOLAR-JET has produced the world's first "solar" jet fuel from water and carbon dioxide (CO2). Researchers have for the first time successfully demonstrated the entire production chain for renewable kerosene, using concentrated light as a high-temperature energy source. The project is still at the experimental stage, with a glassful of jet fuel produced in laboratory conditions, using simulated sunlight. However, the results give hope that in future any liquid hydrocarbon fuels could be produced from sunlight, CO2 and water.

In a first step concentrated light - simulating sunlight - was used to convert carbon dioxide and water to synthesis gas (syngas) in a high-temperature solar reactor (see picture above) containing metal-oxide based materials developed at ETH Zürich. The syngas (a mixture of hydrogen and carbon monoxide) was then converted into kerosene by Shell using the established "Fischer-Tropsch" process.

The four-year SOLAR-JET project was launched in June 2011 and is receiving €2.2 million of EU funding from the Seventh Framework Programme for Research and Technological Development (FP7). The SOLAR-JET project brings together research organisations from academia and industry (ETH Zürich, Bauhaus Luftfahrt, Deutsches Zentrum für Luft- und Raumfahrt (DLR), Shell Global Solutions and management partner ARTTIC).

Further details in source: European Commission

The COELUX project is using LEDs to simulate natural light. ©Shutterstock/rangizzz

EU Research Highlight – New technology to 'experience sunny skies anytime, anywhere'

High-tech LED technology and sophisticated optical systems are being used to recreate natural sunlight.

Imagine sitting in a windowless room yet having the feeling of the sun shining on your face. This unique experience is now possible thanks to the COELUX EU-funded project which recreates the physical and optical effects of natural light indoors by simulating the diffusion and transmission of sunlight through the atmosphere.

The high-tech window system designed by the project, which was on show at the EU's Innovation Convention 2014, uses energy-saving LEDs (light-emitting diodes) which reproduce the same spectrum of light as sunlight. It also includes a sophisticated optical system to create a sensation of distance between the simulated sky and the 'sun'.

The system uses nanostructured materials only a few millimetres thick to recreate the way radiation is scattered as it passes through the earth's atmosphere.

'With COELUX, you can experience sunny skies anytime, anywhere,' said Professor Paolo Di Trapani, coordinator of the project and a physicist at the University of Insubria in Como, Italy, whose research has been driven by the desire to recreate natural light for the past 10 years.

The system provides three settings so that users can experience the light of Northern Europe, of the Mediterranean and of the Tropics.

Read more in source: Horizon

EU Research Highlight – Probing the brain without surgery


© Sebastian Kaulitzki fotolia

A breakthrough European research project has developed a safe and simple approach that avoids surgery and its associated risks in order to help patients with traumatic brain injury (TBI). The BrainSafe project uses an innovative technology for non-invasive monitoring of intracranial pressure (ICP), the pressure inside the skull and thus the brain tissue and the surrounding fluid.

Until now ICP diagnoses have involved drilling a hole in the skull and placing a pressure sensor on the patient's brain. This might expose the patient to infection (a 5% risk), bleeding, and leak of fluids or loss of other body tissue, pain, and hyperthermia as well as anaesthetic risks.

The BrainSafe technology is a fast and easy-to-use way of measuring ICP accurately and reliably. The system, based on ultrasound wave frequency technology, uses the same patient specific calibration free principle as a standard non-invasive blood pressure measurement.

"The cost, complexity and risk of current diagnostics means it is only used with the most critically ill patients, and not in the millions of patients who are at mild to moderate risk," says BrainSafe project coordinator Edvardas Satkauskas from Vittamed, a Lithuanian company specialising in non-invasive ultrasonic technologies. "There is a clear and compelling need for a non-invasive ICP meter for routine clinical care," adds Satkauskas.

Read more in source: European Commission

EU Research Highlight – A new running shoe that helps prevent injury


© Warren Goldswain fotolia

Jogging or running is a popular form of physical activity. However, the resulting repetitive stresses and strains on joints can cause injuries. In fact, many joggers have to stop practising the sport because they tend to land on their heels which, when done for miles on end, produces impact forces which are simply too much to bear for the legs and back.

In an effort to avoid such injuries, Dutch entrepreneur Adri Hartveld has reinvented the running shoe. His invention does away with the heel and replaces it with a shock plate which distributes the force across the foot while running, therefore encouraging a natural foot strike, just like barefoot runners and elite athletes.

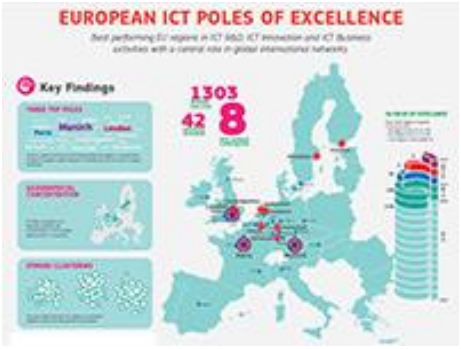
"HEELLESS", as the shoe concept is aptly named, prevents joint injury and muscle overstrains by lessening the impact of the foot striking the ground during running.

Preliminary trials had already proven Hartveld's concept, but methodical research was needed and this is where the European Union (EU)'s contribution of nearly €1 million came in. The two-year project that began in September 2008 saw an SME consortium from the Netherlands, the United Kingdom, Germany, Spain and Poland carrying out an independent analysis via a myriad of tests to further improve the shoe.

The data collected shows how the lower limb joints and the muscles in the HEELLESS concept shoes work in comparison to conventional running shoes. The composite materials that will be used in the rigid upper sole will set a new precedent for the market. Using a combination of flax and carbon fibre to protect the body from repeated shock forces is a first in the world for footwear.

Read more in source: European Commission

Publication – New study identifies Europe's 34 ICT hubs



Infographic presenting European ICT Poles of Excellence

ICT excellence is highly concentrated in a few areas in Europe which are closely clustered among themselves. These are the main conclusions of a JRC-led study published in April, which maps ICT activity and ranks European regions based on their performance. Results show that most ICT activity takes place in 34 EU regions (out of the 1303 analysed) located in 12 countries, which represent a large share of the total EU ICT activity.

Based on a composite indicator that analyses three ICT activities (business, R&D and Innovation) and values their intensity, their internationalisation and the network role, three main poles of excellence are identified. Out of 100 points, Munich gets the maximum, London 97 and Paris 95. A further 31 regions show outstanding performance.

Read more on the JRC website and in the press release.

Events - 2nd Sino-European Graphene Research Cooperation Meeting, Madrid, 12-13 May, 2014

Following the very successful organisation of the 1st Sino-European Graphene Research Cooperation Meeting in Beijing in September 2012, co-organized by IMDEA, Peking University and EURAXESS Links China, a second edition is being organized this May in Spain, bringing again some of the best research teams in Europe and in China working on the nano-material grapheme together, to exchange on their ongoing research and explore opportunities for collaborations.

The programme of the workshop with the list of speakers is now available.

For further details please contact:

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4.2 EU Member States*, China & Bilateral Cooperation

Belgium – EU-China research centre opens in Bruges

Jorg Monar, rector of the College of Europe, right, speaks at the opening of the EU-China Research Centre. Photo: Xinhua

On Tuesday 1 April 2014, the InBev-Baillet Latour Fund and the College of Europe in Bruges signed a new partnership agreement to establish an EU-China Research Centre based in the Department of EU International Relations and Diplomacy Studies. Over a period of 3 academic years the Fund is making a total of € 600,000 available to the College of Europe as part of this initiative.

The EU-China Research Centre launched on the occasion of the state visit of President Xi last month is the first of its kind in Belgium and among the first ones in Europe. The aim of the Centre is to stimulate multidisciplinary research into relations between the EU and the People's Republic of China.

Professor Jing Men, Chairholder of the InBev-Baillet Latour Chair of European Union-China Relations at the College of Europe, shall be appointed the first Director of the EU-China Research Centre.

Read more in the press release.

China – NSFC and RSE announce jointly funded projects for 2014

The Royal Society of Edinburgh (RSE) – NSFC Joint Project scheme is designed to facilitate international collaboration between researchers based in Scotland and China. A grant is provided to researchers to cover travel, subsistence and research expenses.

The collaboration should be based on a single project, with two teams or individuals based in Scotland and China. A relationship must have already been establishd between the Scotland-based and China-based researchers.

Following the 2013 call, both agencies received 11 proposals and selected seven out of them. The projects will start on 1st of May, 2014 and be carried out until 31st of March, 2016.

The subject areas for this call were Computational Cognitive Neuroscience, Psycholinguistics (particularly in relation to Chinese language processing), Interaction and Communication, Visual Cognition and Social Neuroscience.

Access the list of selected projects on the NSFC website.

* Including countries associated with Horizon 2020.

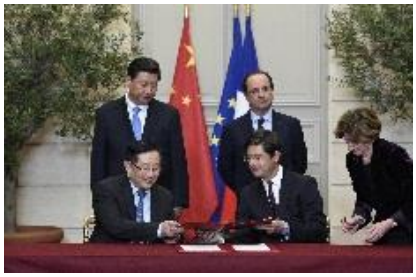
Denmark - Danish Queen Attends Groundbreaking Ceremony

Queen Margrethe II of Denmark attended the groundbreaking ceremony for the main building of the Sino-Danish Research Center for Education and Research (SDC) at the Yanqihu Campus of the University of Chinese Academy of Sciences (UCAS) in Beijing's Huairou District on Apr. 26 during her five-day visit to China. The SDC building will have over 10,000 square meters of floor space and serve as the hub for all SDC activities. It will comprise classrooms, a large lecture hall, a library, reading rooms and space for dining, socializing and relaxing.

Research at SDC primarily focuses on nanoscience and nanotechnology, renewable energy, water and environment, life sciences and biomedicine, and innovation and welfare studies. The center offers opportunities for collaboration between the two countries in training graduate students, conducting scientific and technological innovation, and undertaking technology transfer.

SDC was launched in 2012. Currently, 154 Chinese and 95 Danish master's students, as well as 24 Chinese and 44 Danish doctoral students are studying at the center.

Read kmore in source: CAS



France – New cooperation agreement on enterprises' innovation signed between Bpifrance and MoST

The agreement between the French agency supporting and funding enterprises Bpifrance and the Chinese Ministry of Science and Technology was signed during President Xi Jinping's visit to France in March.

This agreement foresees collaboration on the following issues:

- establishment of a joint programme to support research projects carried out by French and Chinese enteprises, in particular SMEs;
- support to collaborations between French competitiveness clusters and Chinese hight-tech parkst o launch joint projects;
- Organisation of events to foster exchanges between French and Chinese enterprises.

Find out more in source: La France en Chine

France – General meeting of Sino-French research and higher education joint structures and networks, 19-20 June 2014, Beijing

The first edition of this general meeting will take place next 19 and 20 June in Beijing (exact venue still to be confirmed) in the framework of the celebration of the 50th anniversary of the establishment of diplomatic relations between France and the PRC.

This meeting will bring together all actors of the joint research structures cooperation in natural and social sciences, representatives of the joint higher education institutions between France and China, as well as representatives of French technology companies present in China.

The event should be an occasion to learn more about Chinese programmes to attract foreign researchers, about opportunities and relevance to launch transdisciplinary research projects and about the trends for future cooperation involving French academic and corporate stakeholders based in China.

The event is organized by the S&T and the Culture and Cooperation offices of the French Embassy to China. Details will be published on this webpage. Expressions of interest to attend the meeting can already be sent to hui.liu@diplomatie.gouv.fr.

Source: La France en Chine

France – Seminar to deepen Sino-French and Sino-European cooperation in ICT, 16 May 2014, Paris

Created over fifteen years ago by French and Chinese research institutions, LIAMA (Sino-European Laboratory of Informatics, Automation and Applied Mathematics) is hosting a seminar, jointly with Inria and CNRS, to strengthen cooperation between France and China in the ICST (Information and Communication Science and Technologies) field.

This seminar will provide French and European stakeholders the chance to learn about opportunities that are offered to conduct international excellence research projects.

LIAMA is currently conducting 11 research projects in fields ranging from life sciences information processing to cybersecurity and environment.

The event is organized in the framework of the celebration of the 50th anniversary of the establishment of diplomatic relations between France and the PRC.

Find out more on the event's website.

Germany – Sino-German Network on Electromobility

The TU9 Electromobility project is a collaboration between German and Chinese universities: Technical University of Munich, Technical University of Berlin and Karlsruhe Institute of Technology on the German side, Tsinghua University, Huazong University of S&T, Beijing Institute of Technology and Tongji University on the Chinese side.

Both countries share the goal of making electromobility a key component of future mobility concepts. Decreasing resources and the impending climate change demand an urgent transition to renewable energy sources. For transportation, this implies a rapid introduction of electromobility. This change

does not only require progress in battery technology, but an adjustment of vehicle design on all levels.

Germany is a frontrunner in car manufacturing, and China is leading in the production of batteries. Chinese universities and institutes have also developed a huge research activity in batteries. Since the expertise is complementary, both nations would mutually benefit from the advances in research in electromobility. By close, interdisciplinary collaboration, the TU9 project aims at evolving electromobility.

Learn more about this project on the TU9 website.

UK – Newton Fund: building science and innovation capacity in developing countries (including China)

The Newton Fund was announced in Brazil by the Chancellor, George Osborne, on 9 April. The £375 million fund (£75 million per year over five years, starting from 2014) is intended to allow the UK to use its strengths in scientific research to promote economic development and welfare in emerging economies while building long-term collaborations with countries that will produce leading innovations in the future. The money has been allocated to the Department of Business Innovation and Skills and is in addition to the science budget.

It is expected that the UK funding will lead to extra funding from partner countries, private foundations, multi-lateral organizations and corporate partners.

The fund will cover 3 broad categories of activity:

- people: improving science and innovation expertise (known as 'capacity building'), student and researcher fellowships, mobility schemes and joint centres
- programmes: research collaborations on development topics
- translation: innovation partnerships and challenge funds to develop innovative solutions on development topics

The countries that will be worked with under the fund are:

- Brazil
- Chile
- **China: Newton UK-China Research and Innovation Partnership**
- Colombia: Newton-Caldas Fund
- Egypt
- India: Newton-Bhabha Fund
- Indonesia
- Kazakhstan: Newton-Al Farabi Partnership Programme
- Malaysia
- Mexico
- Philippines
- South Africa and wider Africa
- Thailand

- Turkey
- Vietnam

Details of how to bid for research funding will be released in the next couple of months.

Source: GOV.UK

Grants & Fellowships

5.1 Calls announcements for international researchers

Belgium – FWO-NSFC Cooperation

To stimulate scientific collaboration between Flanders and China on the basis of equality and mutual benefit, the FWO has signed an agreement with the National Natural Science Foundation of China (NNSFC). This cooperation is focussed mainly on the exchange of young postdoctoral researchers and the organisation of joint seminars and conferences. Other collaborative activities can be agreed upon by the researchers concerned. The research must be fundamental in nature, and fall within the remit of already subsidised projects.

Projects are funded for a duration of 2 years. The funding covers the exchange of researchers and the organisation of seminars and workshops.

Each party bears the travel expenses of its own researchers and the living expenses of the other party's researchers abroad: maximum 6 weeks. FWO pays foreign researchers a daily living allowance of €50 (or max. €1,300 per month) + reimbursement of accommodation expenses

This is continuously open call. Proposals should be submitted **no later than 4 months before the start of the exchange**.

Further details to be found on the FWO website.

EU – EU-CHINA RESEARCH AND INNOVATION PARTNERSHIP (ECRIP): 4 Million Euros to fund mobility of EU Researchers to China

A new major programme of the European Commission to fund specifically mobility of European researchers to China has been launched on 4th of April.

The objective of this programme called 'EU-CHINA RESEARCH AND INNOVATION PARTNERSHIP (ECRIP)' is to create, strengthen and intensify the EU-China Research & Innovation (RI) partnerships by supporting the mobility of EU researchers to China and strengthening people-to-people contacts, from both the public and private sectors, in strategic RI sectors.

The overall indicative amount made available under this Call for Proposals is EUR 4,000,000.

The Call for Proposals is divided into five lots of EUR 800,000 each, corresponding to five identified strategic areas:

- **Lot 1: Renewable energy, energy efficiency, sustainable energy solutions for cities;**
- **Lot 2: Sustainable urban development and urban planning, green urban mobility and transport;**
- **Lot 3: Health, public health and welfare policies - life sciences;**
- **Lot 4: Information and communication technologies, smart cities;**
- **Lot 5: Food, agriculture, bio-technologies and water.**

Any grant requested must be comprised between EUR 600,000 and EUR 800,000.

The proposed project must aim to set up or strengthen partnerships in the targeted areas between European and Chinese research organizations (higher education and research entities from public and private sectors), by supporting the mobility of EU researchers to China.

Each project funded under this call will be a combination of an identified number of individual mobility schemes complemented by supporting activities. The funding of the mobility of EU-based researchers to China is the main aim of this programme.

Hence, individuals financially supported in the framework of the mobility scheme must be nationals from one of the EU Member States and shall not be already based in China or have previously spent an extended period undertaking research in China. Doctoral and post-doctoral students, research and academic staff, as well as engineers, innovation managers and RI personnel are all eligible to be funded.

While in light of the nature of this programme, the participation of EU and Chinese public or private research entities is compulsory, the mobility of Chinese researchers or Chinese visiting professors or travel / per diem for Chinese nationals is not eligible for funding.

In order to implement the project, the applying organizations will organize themselves in a partnership composed of at least two European organizations, from two different EU Member States, and a minimum of one Chinese organization.

Participation of research organizations from the European private sector is strongly desired.

Application deadline is **23 May, 2014**.

Access the call and all the application details on the European Commission Development & Cooperation website.

EU – European Institutes for Advanced Study (EURIAS) Fellowship Programme

The European Institutes for Advanced Study (EURIAS) Fellowship Programme is an international researcher mobility programme offering 10-month residencies in one of the 16 participating Institutes: Berlin, Bologna, Budapest, Cambridge, Delmenhorst, Edinburgh, Freiburg, Helsinki, Jerusalem, Lyon, Marseille, Paris, Uppsala, Vienna, Wassenaar, Zürich.

EURIAS Fellowships are mainly offered in the fields of the **humanities and social sciences** but may also be granted to scholars in life and exact sciences, provided that their proposed research project does not require laboratory facilities and that it interfaces with humanities and social sciences. The diversity of the 16 participating IAS offers a wide range of possible research contexts in Europe for worldwide scholars.

Applicants may select up to three IAS outside their country of nationality or residence as possible host institutions.

The Programme welcomes applications worldwide from promising young scholars (postdoc) as well as from leading senior researchers.

For the 2015-2016 academic year, EURIAS offers 44 fellowships (22 junior and 22 senior positions).

All IAS have agreed on common standards, including the provision of a living allowance (in the range of € 26,000 for a junior fellow and € 38,000 for a senior fellow), accommodation (or a mobility allowance), a research budget, plus coverage of travel expenses.

The deadline for application is **June 5th, 2014**.

Visit the EURIAS website to read more details about the programme and learn how to apply.

EU – EMBO Long-Term Fellowships

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

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

The stipend is a subsistence allowance and is intended to cover the cost of living in the host country.

Applicants must hold a doctorate degree or equivalent at the start of the fellowshipmand have obtained it no more than two years before the application deadline.

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

Find out more details about this fellowship on the EMBO website.

EU – CERN Fellowship and GET Programmes

The CERN Fellowship and Graduate Engineering Training (GET) programmes target researchers in physical sciences and engineering graduates.

There are two levels of Fellowship within the programme:

- The Senior Fellowship Programme, addressed to people with a Ph.D. or at least four years of experience after the degree which gives access to doctoral programmes. In both cases, a maximum of ten years of experience after the degree which gives access to doctoral programmes applies.
- The Junior Fellowship Programme, for holders of at least a Technical Engineer degree (or equivalent) and at most a M.Sc. degree (or equivalent) with not more than 4 years of experience. Please note that the Junior Fellowship programme is only open to nationals of CERN Member States.

The stipend offered under this programme range from 5165 CHF to 8043 CHF (approx. EUR 4230 to EUR 6590) per month (stipends are calculated individually, are competitive and net of tax). Other social benefits and allowances are provided. Contract duration is one to three years, typical duration is two years. It can be exceptionally possible to extend for all or part of a 3rd year.

Application deadline is **1st of September, 2014**.

Further details available on the CERN website.

France/China – CNRS-NSFC Joint Call for 'PICS' projects

International Scientific Cooperation Projects (PICS) is a project jointly set up and presented by a French CNRS research team and a foreign research team whcih have already worked together in the past, resulting in joint publications.

The duration of a PICS is 3 years during which funding is offered to pay for visits, joint meetings and seminars.

In China, CNRS is working with the NSFC, both agencies offering funding to the Sino-French PICS.

The 2014 CNRS-NSFC PICS call has opened on 15 April and will close on **31 May for the French side** and on **3 June for the Chinese side**.

The NSFC will provide funding up to 150,000 RMB per project, starting on 1 January 2015 until 31 December 2017.

Further details about the application procedure can be found on the CNRS website as well as on the NSFC's.

France – ANR "Hosting high-level researchers" (@RAction) scheme

In a global context of researcher mobility, ANR wishes to help reinforce the scientific positioning of France while at the same time offering a first-class welcome to foreign researchers. Consequently the agency is proposing a new funding instrument dedicated to individuals baptised "Hosting high-level researchers" (@RAction) to enable scientists of any nationality to carry out a research project in a reputed institution in France. The ANR funding is designed to help French laboratories fulfil their role as host. This instrument comes under the "international attractiveness of France" part of the ANR Work Programme 2014.

The call for proposals is **open to all scientific domains** and targets two researcher profiles: leading world-class scientists whose career is widely recognised across the globe, and young researchers with high potential who can prove a record of excellence on the international scene.

The reply to this call is a collaborative effort between the researcher and the hosting institution.

The indicative range of ANR funding for this instrument is between €150 k and €900 k.

Application deadline is **24 June, 2014**.

Find out more on the ANR website.

France/Hong Kong – PROCORE Joint Research Scheme 2014

The Research Grants Council (RGC) and the Consulate General of France (CGF) in Hong Kong invite applications for the PROCORE-France/Hong Kong Joint Research Scheme 2014/15 exercise.

Launched in 1998, the Scheme aims to promote research collaboration between Hong Kong and France by providing researchers in the two places with one-year and two-year travel grants. The Scheme also offers two conference/workshop grants to sponsor a conference/workshop each in Hong Kong and in France. **All research fields, including social sciences and the humanities, are covered by this programme.**

As in the 2012/13 exercise, the Hong Kong Principal Investigators could use the RGC grants to support justified research visits of research postgraduate students to partner institutions, in order to enhance the students' training and opportunities for overseas experience.

The budget for the Hong Kong applicants in the 2014/15 exercise is HK$1.02 million, of which HK$150,000 is earmarked for one conference/workshop to be

held in Hong Kong. The grant size for the travel grants is HK$45,000 per year for projects involving travel of research postgraduate student(s) and HK$31,250 per year for projects not involving students' travel.

On the French side, funding up to EUR 4,600 per year (for up to 2 years) is available to fund mobility of researchers involved in the project between France and Hong Kong.

Application deadline is **19 May** in Hong Kong for the Hong Kong applicants and **27 May** in France for the French applicants.

Establishment of multilateral projects with researchers of Germany, which has a similar programme running with France and Hong Kong, is encouraged.

More details can be found on the RGC (Hong Kong) website and on the Campus France website.

France – Ined is looking for PhD students to carry out research on population issues

The Institut national d'études démographiques (Ined, France) launched its call for applications to select:

- 11 doctoral students, enrolled in a French or foreign university, who will receive a doctoral grant for a period of 1 to 3 years, depending on the degree of advancement of their thesis (3 years for students starting their thesis, 2 years for students in their 2nd thesis year in 2014-2015, 1 year for students in their 3rd or 4th thesis year in 2014-2015).
- At least 2 doctoral students with external funding (employment / doctoral contract with a body other than INED) but who wish to be hosted without remuneration at INED and to benefit from its scientific environment.

The research projects presented by applicants must correspond to the research themes and methodological approaches of INED (see the INED website: http://www.ined.fr/en/) and of the iPOPs laboratory of excellence (see the iPOPs website: http://http://www.ipops.fr/en/).

The 2014 call is open for applications until **13 May, 2014**. More details available here.

Germany – Doctoral fellowships in Germany in Life and Natural sciences

The International Max Planck Research School - Molecular Biomedicine (IMPRS-MBM) and the Cells in Motion Excellence Cluster (CiM) offer 16 PhD Fellowships in Life and Natural Sciences**.**

CiM-IMPRS is a joint graduate program formed by the merger of the International Max Planck Research School IMPRS-MBM and the CiM Graduate School of the "Cells in Motion" Cluster of Excellence at the University of Münster. The program is jointly run by the University of Münster and the Max Planck Institute for Molecular Biomedicine.

The Ph.D. program offers excellent research and teaching in Molecular and Cellular Life Sciences with a strong emphasis on Imaging. The program is open to graduates of the **biological sciences, chemistry, mathematics, computer sciences and physics**.

Apply until **9 May, 2014**. More details available here.

Germany – DLR-DAAD Research Fellowships

'DLR – DAAD Research Fellowships' is a programme implemented by the 'Deutsches Zentrum für Luft- und Raumfahrt' (DLR) and the 'German Academic Exchange Service' (DAAD).

This special programme is intended for highly-qualified foreign doctoral and postdoctoral students as well as senior scientists in the fields of **Space, Aeronautics, Energy and Transportation Research**. DLR-DAAD Fellowships offer outstanding scientists and researchers the opportunity to conduct special research at the institutes of the DLR in Germany.

DLR-DAAD Fellowships are defined and awarded on an individual basis. Each Fellowship announcement indicates the specific qualification requirements and terms of the visit.

Find out more about this programme on the DAAD website and access the list of current offers.

Germany – 20 Incoming Postdoc Fellowships at Freie Universität Berlin Dahlem Research School

The Dahlem Research School's Postdoc Fellowship Program – co-financed by the German Excellence Initiative and the Marie Curie Program of the European Commission – provides funding for outstanding postdoctoral researchers from all disciplines to conduct their own research project at Freie Universität Berlin. The aim is to support highly-qualified postdoctoral researchers who are outstanding in their field and to integrate them into one of the university's research groups in an early phase of their career.

At the end of the funding period, DRS fellows are expected to apply for funding for follow-up research projects at Freie Universität Berlin.

Starting in January 2015, each research fellowship will be awarded for 18 months. Applicants have to submit a project plan based around the research fields/ key topics of the participating Excellence Projects or Focus Areas (**covering Social Sciences and Humanities as well as Life and Natural Sciences**)

Female postdoctoral researchers and returnees from phases of international, inter-sectoral and/or non-academic mobility (such as researching outside Germany, working for industry or after a career break e.g. due to family reasons) are specifically encouraged to apply.

Deadline for applications is **4 July, 2014**.

Read more on the FUB website.

Germany – Call for applications: "Latest Achievement in Transportation Engineering and Logistics" – Summer School 2014 at Tsinghua University, Beijing.

The summer school will be held from 21st July 2014 till 01st August 2014 at Tsinghua University in Beijing.

The summer school is established for students from Peoples Republic of China and is organized by Technische Universität München (TUM) and Tsinghua University. The lectures are mainly set up by Technische Universität München and all school activities are conducted in English. Approximately 25-30 students will be accepted for the summer school this year.

German Academic Exchange Service (DAAD) and Federal Foreign Office of Germany (Auswärtiges Amt) are the supporters of this summer school.

The participation in the summer school is free of charge for all students. However, accepted students are supposed to cover their travel and accommodation expenses on their own.

Students, who are intested in transportation related subjects and Students who are interested in undertaking a M.Sc. degree in Germany with the major in transportation at TUM, are invited to apply for this summer school. You have the chance to meet lecturers from TUM and discuss study and research opportunities at TUM in Germany.

Applications are open to all chinese candidates who already holding a bachelor's degree or who are currently enrolled in a bachelor's degree programme, in any of the following areas (but not limited):

Civil Engineering, Transportation Engineering, Electrical Engineering, Geodetics, Mechanical Engineering, Geography, Computer Science, Communications Engineering, Economics, Mathematics, Physical Sciences, Architecture, Environmental Engineering, Tourisms.

The application deadline is **31st of May, 2014**.

Find out more on the TUM website.

Germany – German Chancellor Fellowship – new call for applications from tomorrow's leaders

Every year the German Chancellor Fellowship for prospective leaders offers up to 50 highly talented young professionals from Brazil, **China**, India, Russia and the USA an opportunity to spend a year in Germany and to conduct together with their German host a project they have chosen themselves.

German Chancellor Fellows come from a wide range of fields such as **politics, business, media, public administration, society and culture**. Each of them selects a suitable host organisation for their stay in Germany.

This fellowship targets prospective decision-makers and thought leaders with an academic degree who will network in Germany with other prospective leaders from abroad and return to their respective country as mediators between cultures.

The Chancellor of the Federal Republic of Germany is the patron of the German Chancellor Fellowship programme which is funded by the Federal Foreign Office. The deadline for applications is **15 September, 2014**.

Read more about this programme on the Humboldt Foundation website.

Luxembourg – INTER Mobility Programme 2nd 2014 Call

The aim of the INTER Mobility Programme (funded by the FNR) is to promote the scientific exchange between research groups of the Luxembourg public research institutions and research groups abroad.

More specifically, the FNR intends to support:

- Post-Docs and senior researchers working in Luxembourg to visit the leading research institutions in the field or
- The visit of established foreign senior researchers in Luxembourg public research institutions.

This funding instrument also aims to bridge the gap between the research communities in the public and the private sector. Therefore, secondments to private companies outside of Luxembourg are highly welcome.

The minimal duration of an FNR-funded research stay is 6 weeks and the total cumulated duration of the research stay is limited to 1 year. If justified, the research stay may be split in several intervals of at least 6 weeks each. The time between the start of the first stay period and the end of the last stay period is limited to 3 years.

The exchange must take place between a Luxembourg public research institution and a foreign public or private institution. If duly justified, the Luxembourg-based researcher may also visit several organisations abroad. If duly justified, the proposal may also cover the expenses for two researchers (e.g. one from the Luxembourg based group to the group abroad and one from the group abroad to the Luxembourg group).

Application deadline is **30 June, 2014**.

Read more about this programme on the FNR website.

Norway – KLIMAFORSK Personal Overseas Research Grants, Personal Visiting Researcher Grants and Support for Events

The Large-scale **Climate** Programme (KLIMAFORSK) of the Norwegian Research Council (a 10-year initiative for climate research, 2014-2023) is announcing funding for research stays abroad, visiting researcher stays in Norway and events that promote the scientific and strategic objectives of the programme. A total of up to NOK 2 million (approx. EUR 240,000) is available for all three types of support.

The funding is divided among:

- Personal overseas research grant
- Support for event
- Personal visiting researcher grant

Grant applications may be submitted for research stays and events that will take place at the end of 2014 or during the course of 2015.

When applying for Personal Visiting Researcher Grants and Personal Overseas Research Grants, funding may only be sought for travel expenses and accommodation at fixed rates. Support for Events is limited to maximum NOK 60,000 (approx. EUR 7,300). Funding may only be sought for direct expenses relating to the event.

The Project Owner (formal applicant) must be a Norwegian institution.

The call is currently open and will close on **21st of May, 2014**.

More details availalbe on the Research Council of Norway (RCN) website.

Norway – FRIPRO mobility grants

Grants are designed to increase mobility and promote career development for young researchers. Proposals will be accepted in **all fields and disciplines**.

Funding is available for up to 14 projects with start-up in 2015, to be distributed as follows: FRIHUMSAM (Social Sciences and Humanities): 4, FRIMEDBIO (Medicine, Health Sciences and Biology: 6, and FRINATEK (Mathematics, Physical Science and Technology): 4.

Projects must have a timeframe of three years, with the first two years spent at a research institution abroad and the third year at a Norwegian research institution.

This call is jointly funded by the Research Council and the EU's COFUND scheme.

Application deadline is **21st of May, 2014**.

More detaisl available on the RCN website.

Spain – Talentia Incoming / Outgoing Postdoc Fellowships

The Andalusian Knowledge Agency (AAC) of the Regional Ministry of Economy, Innovation, Science and Employment in Andalusia launched THE TALENTIA POSTDOC FELLOWSHIPS offering two-year fellowships, co-financed by the Marie Curie Program of the European Union, to experienced researchers.

The fellowships fund both:

- Outgoing mobility fellowships, which allow experienced researchers to work between 12 and 18 months in their selected destination universities and research centers, and then spend a period of between 6 and 12 months in their selected agent of the Andalusian Knowledge System.
- Incoming mobility fellowships, which allow experienced researchers to carry out their research for 24 months based in their selected agent of the Andalusian Knowledge System. Applicants to this scheme may originate from any country inside or outside Europe, provided however that they have worked outside Spain for the last 24 months.

Deadline for applications is **5 May, 2014**. For more info, visit Talentia website.

Sweden – Tage Erlander Visiting Professorship

The purpose of this professorship is to give internationally recognized foreign researchers the opportunity to spend one year at a university or higher education institution (HEI) or research institute in Sweden.

The research areas within which a researcher can be nominated alternate according to a rolling schedule. The researchers eligible for nomination to the 2015 visiting professorship must be active within **analytical, physical and theoretical chemistry, organic and inorganic chemistry, biochemistry and structural biology, cell and molecular biology, biotechnology, chemical technology or environmental technology**. The researchers eligible to apply for this visiting professorship must already hold the title of professor when applying for the position.

Swedish universities and Higher education institutes (HEI) are welcome to nominate candidates forthe visiting professorship.

The application – with the nominated candidate – should be submitted by the department wishing to host the chair.

The person being nominated for the chair must have given his/her consent.

The stay in Sweden must be at least six months and no more than one year in length. The chair must be assumed in 2015.

The grant is intended to cover salary costs, including social fees and insurance, rent for housing, and travel, within a framework of SEK 1.9 million (approx. EUR 210,000). Above and beyond this the Tage Erlander Foundation, via the Swedish Research Council, will contribute a maximum of SEK 400,000 (approx. EUR 44,000) to finance a young researcher (doctoral student or postdoc) to be tied to the professorship.

The application deadline is **5 May, 2014**.

Details are available on the Swedish Research Council website.

Sweden – Initiation Grants

The purpose of STINT's activity is to strengthen the competitiveness of Swedish universities and colleges through the development of international relationships.

Initiation grants are given for the implementation of short-term projects targeting the building of new and strategically interesting international relationships. Applications may be submitted continuously throughout the year.

The next assessment date of received applications is **10 June, 2014**.

Further details can be found on the STINT website.

5.2 Calls still open

Calls first announced in previous editions of the newsletter

Belgium – Pegasus Marie Curie Fellowships (short)

The current call (for Pegasus Short only) will close on **1st May, 2014**.

More details on the FWO website.

Switzerland – Swiss National Science Foundation (SNSF) Professorship

The application deadline is **1st of May, 2014**.

Further details can be found on the SNSF website.

Sweden – Kerstin Hesselgren and Olof Palme Visiting Professorships

Application deadline is **5 May, 2014**.

Further details can be found on the Swedish Research Council website.

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

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

UK applicants can find more details on the MRC website. Chinese applicants are invited to visit the NSFC website.

Germany – Sino-German Joint Funding Programme „Biomedical and Translational Medicine Studies Based on Stem Cells/Reprogrammed Cells"

Joint proposals must be submitted to NSFC and DFG (in English) by **9 May 2014**

Further details about this call can be found on the DFG website and on the NSFC website.

Belgium – Odysseus programme

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

Further details are available on the FWO website.

Ireland – Science Foundation Ireland (SFI) Industry Fellowship Programme 2014

Next application deadline is **10th of June, 2014**.

Further details available on the SFI website.

EU – Marie Skłodowska-Curie Individual Fellowships (IF)

Application deadline is **11 September, 2014**. Access the online call and get all details on the Horizon 2020 Participant portal.

5.3 Open calls under Horizon 2020 and Euratom

Access all open calls on the Horizon 2020 Participants' portal.

Excellent Science programme

10 open calls including:

European Research Council:

ERC Consolidator Grant – Deadline **20 May, 2014**

ERC Proof of Concept Grant – Deadline **1 October, 2014**

Marie Skłodowska-Curie actions:

Marie Skłodowska-Curie Individual Fellowships (IF) – Deadline **11 September, 2014**

Industrial Leadership

25 open calls

Societal Challenges

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

SFS-13-2015: Biological contamination of crops and the food chain – Deadline **24 February, 2015**

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

MG-1.8-2015: International cooperation in aeronautics – Deadline **31 March, 2015**

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

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

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

BG-15-2014: European polar research cooperation – Deadline **26 June, 2014**

Science with and for society

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

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

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

Euratom

1 open call

5 Jobs

Access thousands of jobs and fellowships announcements in Europe and worldwide on the EURAXESS Jobs portal.

China - Call for a Research Associate/Lab manager at the Guangzhou Institutes of Biomedicine and Health (Guangzhou)

Dr. Ralf Jauch, principle investigator at GIBH, is seeking to recruit a highly motivated Research Associate/Lab manager with a relevant University degree to join an international team at the Guangzhou Institutes of Biomedicine and Health (GIBH), Chinese Academy of Sciences.

Work would involve administrative duties, project and laboratory management such as procurement, negotiations with vendors, accounting of lab finances, liaising with administrative departments at the GIBH, organizations of shipments, help with preparing scientific grant applications as well as secretarial duties. Excellent communications and in English and Chinese are mandatory since an important part of the work would include English-Chinese translations. An interest and some background in Biology and Medicine are a plus and sound computer skills are necessary.

Please consult the below link for further information: http://english.gibh.cas.cn/drug/groups/ralf/

Interested candidates please send your resume to: ralf@gibh.ac.cn

This announcement expires on **May 3rd**. Access the full announcement on naturejobs.

China – Faculty Positions at the Center for Human and Primate Genetics, Institute of Translational Medicine, Tongji University (Shanghai)

The Center for Human and Primate Genetics at Institute of Translational Medicine, Tongji University, Shanghai, China, aims to build a world-class center on research and graduate education in human and primate genetics research. A strong faculty base in biomedical research has already been established at the School of Life Sciences&Technology and School of Medicine at Tongji Univeristy.

At least three additional faculty appointments at the level of endowed investigator under the Institute of Translational Medicine, Tongji University, are now sought.

The institute is particularly interested in recruiting junior researchers who are completing postdoc training in a leading research institution with expertise in genetic manipulation, animal models of human diseases, epigenetic gene regulation, and bioinformatics. A competitive salary (60,000 to 75,000 US$) and generous start-up package is offered.

Application package should include: (1) a cover letter with a brief statement of current and future research interests, (2) a detailed curriculum vitae, and (3) an optional list of three professional references. Application material should be sent via email to: guopingfan@gmail.com

Review of applications will begin immediately and continue until the positions are filled. Ths announcement expires on **16 May, 2014**. Access the full announcement on naturejobs.

EU - 14 positions available under the Marie Curie ITN IsoNose (France, Germany, Ireland, UK)

The Marie Curie Initial Training Network (ITN) 'IsoNose' invites applications for 12 Early Stage Researchers (ESR, PhD-students) and 2 Experienced Researchers (ER, postdocs) to perform competitive research on **innovative stable isotope methods in the environment**. Among these positions, 6 ESR and the 2 ER positions are open to researchers of all nationalities. The others are for Europeans only. All positions are full-time and fixed term either for 3 years (ESR) or for 2 years (ER).

Enrollement in a Marie Curie ITN involves international mobility. At the time of the recruitment you must not have resided or carried out your main activity (work, studies, etc.) in the country of your new host institution for more than 12 months in the three years immediately prior to the date of the recruitment.

Successful applicants will benefit from an extensive training program delivered jointly by academic and industrial partners. The fellows will mainly work in their host institution, but they will also spend a period of at least four months with another IsoNose partner, based either in academia or industry.

Successful candidates will be employed on fixed term contracts. The salaries for these posts are set by the regulations governing Marie Curie projects. The gross employer's costs take into account differences in living costs and are hence country-dependent. They range approximately between € 44,000 and € 63,000 per year for an ERS and between € 63,000 and € 94,000 for an ER.

The next application round closing date is **30 June, 2014**.

Lear more about this programme and how to apply on the 'IsoNose' website.

Finland – Professor of Chinese Studies at the University of Helsinki (Helsinki)

The Department of World Cultures, under the Faculty of Arts at Helsinki University, invites applications for a professorship in Chinese Studies starting from 1 August, 2014.

Chinese Studies focus on such topics as the culture, society, and languages of modern China as well as Chinese history. The professorship is a new position at the University of Helsinki, and the appointee is expected to have a fresh, creative vision to the further development of the field. The appointee will also be responsible for interdisciplinary teaching in his/her field and for acquiring research funding for international projects reinforcing the field.

According to the Regulations of the University of Helsinki, an appointee to a professorship shall hold a doctoral degree and have top level scholarly qualifications, experience in the supervision of scientific research, the ability to provide top level teaching based on research and to supervise theses

Furthermore, skills necessary for serving as an academic leader, good knowledge of the Chinese and Finnish societies, as well as good cooperation skills are required.

The Professor in Chinese Studies is also Director of the Confucius Institute being in charge of the Institute together with a Co-director from the University of Renmin (http://blogs.helsinki.fi/confucius-institute/).

Application deadline is **16 May, 2014**. Access the full announcement on EURAXESS Jobs.

6 Events

7.1 EURAXESS Links China recommends

"Understanding Science" lecture: "PLAYING WITH EARTH CLIMATE. How long will we survive?", 8 May, Beijing

The next "Understanding Science" lecture will be in the Bridge Café in Wudaokou (right by the line 13 Wudaokou subway station).

On Thursday 8th May at 7.30 p.m. Prof. Roger M. BONNET from National Space Science Center, CAS will give a talk about threats faced by Earth's changing climate entitled "PLAYING WITH EARTH CLIMATE. How long will we survive?"

Please see the flyer for further details.

"Understanding Science" is organized by the UK Royal Society of Chemistry (RSC), the Institute of Physics (IoP) and the International Space Science Institute, Beijing. The team welcomes you to join this and future events.

7.2 Upcoming scientific events in China

Field	Date	Location	**Title** (click for more details)
Genetics	5-9 May, 2014	Suzhou	Epigenetics, Chromatin & Transcription
Biotechnology	7-8 May, 2014	Suzhou	6th Annual International Partnering Conference ChinaBio Partnering Forum 2014
Medicine	10-13 May, 2014	Shanghai	Seventh International Conference SUMO, Ubiquitin, UBL Proteins: Implications for Human Diseases
Neuroscience	12-16 May, 2014	Suzhou	Neural Circuit Basis of Behavior and its Disorders
Space	12-31 May, 2014	Beijing	International Workshop - Application of Space Technologies

			in Management and Conservation of World Heritage Sites
Genomics	15-17 May, 2014	Beijing	GWAS 2014: Genome Variation in Precision Medicine
Cancer research	16-18 May, 2014	Nanjing	BIT's 7th Annual World Cancer Congress-2014 (Cancer2014)
Bioinformatics	16-18 May, 2014	Nanjing	BIT's 5th Annual World Congress of Neurotalk-2014 (Neurotalk2014)
Engineering	17-18 May, 2014	Nanjing	The 2nd International Conference on Materials Engineering （ICMEN2014）
Medicine	19-23 May, 2014	Suzhou	Liver Metabolism, Diseases and Cancer
Biotechnology	20-23 May, 2014	Shanghai	Biomanufacturing Asia 2014
Biotechnology	20-23 May, 2014	Shanghai	Biosimilars Asia 2014
Engineering	22-24 May, 2014	Beijing	2014 2nd International Symposium on Engineering and Natural Sciences (ISEANS 2014)
Engineering	22-24 May, 2014	Beijing	2014 The 2nd International Congress on Engineering and Information (ICEAI 2014)
Education	22-24 May, 2014	Beijing	2014 the 2nd International Conference on Education and Social Sciences (ICEASS 2014)
Cancer research	26-30 May, 2014	Suzhou	Precision Cancer Biology and Medicine
Life sciences	29-31 May, 2014	Guangzhou	Genomics and Stem Cell Based Therapies: Shaping the Future of Personalized Medicine
Microbiology	2-6 June, 2014	Suzhou	Systems Medicine Approach to Global Infectious Disease
Structural Biology	9-13 June, 2014	Suzhou	5th CSHA Symposium: Structural Biology - From Atoms to Molecules
Engineering	10-12 June, 2014	Ningbo	Optics Within Life Sciences 2014
Chemical Biology	16-20 June, 2014	Suzhou	Protein Modification & Homeostasis
Bioinformatics	16-20 June, 2014	Shenzhen	BGI Bioinformatics Workshop on Diseases

Engineering	18-21 June, 2014	Wuhan	The 7th International Photonics and OptoElectronics Meetings (POEM 2014)
Neuroscience	23-27 June, 2014	Suzhou	CSHA / NGF 2014 Joint Conference on Nerve Growth Factor and Related Neurotrophic Factors: Emerging Concepts, New Mechanisms, Novel Technologies
Bioinformatics	27-29 June, 2014	Dalian	BIT's 4th Annual World Congress of Microbes 2014 (WCM2014)
Pharmacology	17-18 July, 2014	Shanghai	2nd Digital Pharma China
Computer science	19-20 July, 2014	Shanghai	4th International Conference on Computer Engineering and Networks (CENet 2014)
Marine biology	4-9 August, 2014	Shanghai	ClimEco4
Agriculture	29-31 August, 2014	Changchun	BIT's 3rd Annual World Congress of Agriculture-2014 (WCA2014)
Bioinformatics	9-12 September, 2014	Shenzhen	Joint Conference of the 9th International Conference on Genomics (ICG-9) and the 3rd Shenzhen International Biotechnology Innovation Forum & Expo (SIBIFE-3)
Bioinformatics	15-18 September, 2014	Shenzhen	2014 BGI International Bioinformatics Workshop
Engineering	20-21 September, 2014	Beijing	The 2nd International Conference on Mechatronics and Automatic Control Systems
Remote sensing	13-17 October, 2014	Beijing	9th SPIE Asia-Pacific Remote Sensing Symposium
Cell biology & Genetics	15-17 October, 2014	Shanghai	2014 International Experimental Biology and Medicine Conference
Engineering	16-19 October, 2014	Beijing	The 6th International Conference on Hydrometallurgy-ICHM2014
Diabetes research	24-26 October, 2014	Taiyuan	BIT's 2nd Annual World Congress of Nutrition and Health (WCNH2014)
Physics	2-6 November, 2014	Hefei	12th International Conference on Quantum Communication, Measurement and Computing

Cancer research	9-11 November, 2014	Beijing	Cell Symposium - Hallmarks of Cancer: Asia
Diabetes research	13-16 November, 2014	Haikou	BIT's 7th Annual World Congress of Regenerative Medicine & Stem Cells-2014 (RMSC2014)
Diabetes research	13-16 November, 2014	Haikou	BIT's 4th Annual World Congress of Endobolism-2014 (WCE2014)
Hypertension research	13-16 November, 2014	Haikou	BIT's 6th International Congress of Cardiology (ICC2014)
Emergency medicine	13-16 November, 2014	Haikou	BIT's 4th Annual World Congress of MolMed-2014 (MolMed2014)
Drug discovery	21-23 November, 2014	Suzhou	BIT's 12th Annual Congress of International Drug Discovery Science & Technology

7 Press Review*

8.1 Policy & Papers

Eight cool facts about the new 100-million-people Beijing megacity

A couple weeks ago, one of China's top economic planners discussed plans to integrate Beijing, Tianjin and parts of Hebei into a new mega-city. This new Beijing mega-city would contain approximately 100 million people and is already being referred to as "Jing-Jin-Ji". You can read eight cool "likely facts" about the new Beijing mega-city – and Chinese urbanisation in general. (Source: SCMP)

China reveals blueprint to expand urbanisation

China's leaders have revealed a plan for a multiyear round of state-led infrastructure construction that they hope will prop up the economy amid flagging growth, as they move 100m more people from the rural hinterland into the country's growing cities. The Chinese government's "National New-type Urbanisation Plan", revealed on 13 March, envisions a massive building programme of transport networks, urban infrastructure and residential real estate from now until 2020. (Source: FT)

More Asian Women Find Success In Science

A growing number of Asian women are making inroads in science and technology, thanks to greater opportunities for career development and changing cultural mores. Recognizing the existing gender disparities, governments across Asia have taken measures to encourage more women to join and stay in science and technology fields. For instance, in China, the Chinese Academy of Sciences has identified increasing women representation in science as an important priority. (Source: Asian Scientist)

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8.2 Voices & Opinions

China must tackle soil pollution as a priority to safeguard food chain

Unlike air pollution, soil contamination cannot be so easily seen. Yet it is arguably more harmful to health, due to its impact on food safety. Authorities were at first reluctant to release the findings of the eight-year study; the Ministry of Environmental Protection last year rejected a request filed by a Beijing lawyer on the grounds that the data was a state secret. But scandals involving cadmium-tainted rice and the identification of villages near factories where cancer levels are above national averages have raised awareness of soil and land contamination. That feeds into growing concern over the environment, particularly air and water pollution, leading Beijing to rethink its growth-at-all-costs policy. (Source: SCMP)

Fears over PX 'unfounded', experts say

The protest over a PX chemical plant by residents of Maoming, Guangdong province, shows that local authorities need to encourage public involvement in decision-making - particularly since PX represents a low risk to humans, experts said. Xia Zhaolin, a professor of toxicology and a researcher on the effect of benzene on health at Fudan University, said he is surprised by the public's fear of PX - short for paraxylene, a basic material used in the manufacture of polyester and plastic bottles. "My research area is the impact of chemicals on workers' health, and PX is not even a subject that interests me," he said. "The country is producing large amounts of other chemicals that are far more toxic than PX, such as benzene and chloroethylene," he added. "The reason PX is being singled out and has ignited such large number of protests is that the government lacks trust from the public." (Source: China Daily)

Pineapple awards celebrate sciences with touch of humor

An "invisibility cloak" developed by a team from Zhejiang University can make a goldfish invisible in water and a cat vanish into thin air. The invention, made with cost-effective glass materials, won the Pineapple Science Prize for physics on 12 April night in Hangzhou, capital of Zhejiang province. A number of other low cost gadgets and interesting research were on the prize list, including a mechanical donkey and research on the mate preference of fruit flies, at the ceremony co-hosted by Zhejiang Science Museum and Guokr.com, China's popular science website. While the Ig Nobel Prizes honor achievements that "first make people laugh, and then make them think", the Pineapple Science Prize focuses on curiosity and the popularization of science. All the nominees are Chinese. (Source: China Daily)

8.3 Thematic Activities

Health

Eye Movement Speed Linked To Genes, Not Culture

Can behavior be explained by cultural or genetic factors? To address this question, scientists tested the differences in rapid eye movements known as saccades in Chinese and Caucasian populations. Researchers recruited 70 students from mainland China, 45 British people with Chinese parents and 70 white British people for the study. All of the participants completed questionnaires which evaluated their cultural values. Culturally, the British Chinese participants were similar to their white British counterparts and different to the mainland Chinese students. The study, published in the journal *PLOS One*, concluded that Chinese ethnicity, rather than culture, influenced eye movement patterns. This is contrary to several previous reports from other research groups which looked at behavior in Asian and white participants and concluded that culture explained behavioral differences between groups. (Source: Asian Scientist)

Alzheimer's Disease: New Avenue for Therapeutic and Preventive Treatment

The figure of people who suffered from Alzheimer's disease (AD) has been growing rapidly since firstly described by Alois Alzheimer in 1906. Recent studies found that one out of ten of the elderly showed AD symptoms of different levels, and the ratio is expected to triple by 2050. Recently, scientists from the Changchun Institute of Applied Chemistry claimed to find a new way to treat this kind of disease. "Inhibitions of amyloid β-peptides(Aβ) aggregation and Aβ-haem peroxidase-like activity," said QU Xiaogang, "can be the primary targets of therapeutic strategies for AD". (Source: CAS)

Bayer Boosts Production Capacity In China

Pharmaceutical group Bayer HealthCare will invest around EUR100 million (US$139 million) to significantly increase the production capacity of its plant in Beijing, China, in preparation for further demand of its products in the country. The agreement was signed in Germany on the occasion of the visit of the President of the People's Republic of China, Xi Jinping. The planned capacity expansion is designed to ensure a reliable supply of high-quality products to meet the domestic demand for Bayer HealthCare's products including the company's cardiovascular and anti-diabetes products. Currently more than 13,000 people work for the Bayer Group in China, which is also among the major focusses of the company's global investment. (Source: Asian Scientist)

Asia-Pacific Nations Prodded On Hepatitis Action Plans

Health experts are calling on countries in the Asia-Pacific to set national action plans to address the escalating impact of viral hepatitis which kills over a million people in the region every year. In a policy forum convened last March 14 in Brisbane, Australia, the Coalition to Eradicate Viral Hepatitis in Asia Pacific (CEVHAP), a non-profit, multidisciplinary health expert group, emphasised the need for "cross-sector partnerships" involving policymakers, healthcare professionals, patients and other stakeholders in the development of national strategies to effectively tackle the disease. Hepatitis is an inflammation of the liver, most commonly caused by a viral infection. The WHO estimates that hepatitis B and C affect over 500 million people worldwide. The highest mortality rate, 70 percent, is in the Asia-Pacific. (Source: Asian Scientist)

Lanzhou govt gives all clear for tap water after contamination

Authorities in Lanzhou, capital of northwestern Gansu province, have resumed the supply of tap water to the city's urban districts on 14th April after tests showed that the level of benzene in the water had dropped below national safety limits. From 10 April evening to the next morning, Veolia Water, a Sino-French joint venture and the sole water supplier for urban Lanzhou, found between 118 and 200 micrograms of benzene per liter of water at their plants. Ma Jun, director of the Institute of Public and Environmental Affairs, an NGO that researches water issues in China, said the incident has exposed maintenance issues with China's water supply pipelines. "The problem is not unique in Lanzhou. In some cities, the pipelines are serving beyond their shelf life and are in a poor state of maintenance," he said. (Source: China Daily)

Are Chicken and Quail the Source of H7N9 Virus?

Among the copious species of poultry in China, quail and chickens are the likely sources of infection of H7N9 influenza virus to humans, according to a paper published ahead of print in the *Journal of Virology*.

The H7N9 avian influenza virus was first reported in humans in March 2013 in China. Since then over 375 human cases have been confirmed and over 100 have died. According to the World Health Organization, most known human infections have resulted from direct or indirect contact with poultry. (Source: Asian Scientist)

Cervical cancer rise 'due to sexual habits'

Sex from an earlier age and with more partners might have led to a huge increase in cervical cancer among young Shanghai women, experts said 23 April. Young people aged from 15 to 24 are most vulnerable to human papillomavirus (HPV), which can lead to cervical cancer, said Shi Huijing, an associate professor of the School of Public Health of Fudan University. The

incidence of cervical cancer is second only to breast cancer among cancers of women in China. China sees more than 100,000 new cervical cancer cases every year — about 25 percent of the global figure. (Source: Shanghai Daily)

* * *

Food, agriculture & fisheries, biotechnology

Illumina touts 'genetic sequencer' for consumers

Chinese consumers may soon be able to have their entire genetic identity mapped onto their mobile device. Nasdaq-listed biotech firm Illumina said on 22 April that it was working with Chinese regulators to introduce an advanced version of the world's first "genetic sequencer" that can create a full human genome map for under US$1,000 in China. The price of Illumina's new technology is a tenth of the industry cost of nearly US$10,000 for a full genetic sequence just 12 months ago. Illumina now even provides an app which clients can use to pull their genetic profile on a smartphone or tablet from a cloud-based storage system. (Shanghai Daily)

Farmers Adapt to Extreme Weather Events through Crop Diversification in China

In recent years, extreme weather events (including drought and floods) have become more frequent and serious in China. Increasingly extreme weather events has threatened food security and resulted in massive socio-economic loss. Given the risks posed by increasingly serious extreme weather events, the question of how to adapt to it through appropriate measures has received a great deal of attention from policy makers and researchers. Based on a large-scale household and village survey conducted in nine provinces nationwide, Prof. HUANG Jikun and his team from the Institute of Geographic Sciences and Natural Resources Research (IGSNRR) of the Chinese Academy of Sciences found that farmers respond to extreme weather events by increasing crop diversification. Their decision to diversify crops is significantly influenced by their experiences of extreme weather events in the previous year. Regression analysis reveals that household characteristics also affect farmers' decisions on crop diversification strategy. (Source: CAS)

* * *

Information & communication technologies

Homegrown High-precision Positioning System Put to Use

A self-developed positioning system with high precision went into application in China on Friday, further beefing up the capability of the country's satellite navigation system. Xihe, named after an ancient Chinese god, was developed by the National Remote Sensing Center of China (NRSCC) under the Ministry of Science and Technology (MOST). It has an outdoor accuracy of one meter and an indoor accuracy of 3 meters, the NRSCC said. Xihe can identify and connect with various satellite navigation systems, including China's homegrown Beidou, which many other positioning systems cannot identify. It has undergone trials in Beijing, Shanghai and Tianjin, according to the NRSCC. Jing Guife, NRSCC deputy director, said that the system will play an important role in many areas, including positioning, transportation and the Internet of Things. (Source: CAS)

Hierarchical Artificial Bee Colony Algorithm to Optimize RFID Network Planning

Radio frequency identification (RFID) network planning (RNP) has been a challenging issue for the operation and management of the large-scale Internet of Things (IoT), which is proven to be a NP-hard problem. Specifically, the RNP problem can be formulated as a high-dimensional nonlinear optimization problem with a large number of variables and uncertain parameters. Recently, evolutionary computation (EC) and swarm intelligence (SI) techniques for solving RNP problem have gained increasing attention. To deal with this issue, the researchers from Shenyang Institute of Automation, the Chinese Academy of Sciences propose a novel optimization algorithm, namely hierarchical artificial bee colony optimization, called HABC, to tackle such large-scale RNP problem. (Source: CAS)

The world's fastest supercomputer Tianhe-2 undergoingtrials

According to a report from Yangcheng Evening News, Tianhe-2 has started to provide computing services to the public while in-system debugging is ongoing. The first beneficiaries are users of the previous pilot system. Located in Sun Yat-sen University, Guangzhou, in Guangdong Province, Tainhe-2 is regarded as the world's fastest supercomputer. (Source: People's Daily)

Low prices to attract users to 4G

More than 85 percent of 4G phones sold cost under 2,000 yuan (US$321) each, less than half the price of iPhone and Samsung flagship models, China Unicom said at a conference held with 16 smartphone makers, including Samsung, HTC, ZTE, Coolpad and Sony, in Shanghai. The most popular 4G phones by sales for China Unicom are three models, costing about 1,000 yuan each, made by Coolpad, Lenovo and Huawei. (Source: Shanghai Daily)

Tencent seeks innovation with Qianhai bank

Tencent is scouting for innovation opportunities in Internet finance in the Qianhai Economic Zone in Shenzhen as the company has won the license to set up a private bank. “Tencent will initiate the establishment of a privately-owned bank in Qianhai, Shenzhen,” the Internet giant said in a statement. Qianhai has been picked as a special economic zone in Shenzhen to boost cross-border trade and investment with Hong Kong.(Source: Shanghai Daily)

Alibaba acquires AutoNavi for US$1.5b

Chinese digital mapping and navigation company AutoNavi Holdings Ltd has agreed to be acquired by e-commerce giant Alibaba Group Holding Ltd in a deal valuing the company at about US$1.5 billion. The deal, expected to close in the third quarter of this year, would help Alibaba increase revenue by integrating AutoNavi’s technology and data on location of establishments into maps, allowing customers to access peer review of shops and restaurants and pay for goods before arriving at a shop.(Source: Shanghai Daily)

Mandarin-learning app a boon for English speakers

A new app to help English-speakers learn Mandarin with fun and efficiency was launched on 8 March at the London Book Fair. A joint project between the Chinese publisher The Commercial Press and the British cartographic company Communicarta, Linguapp Chinese is available on the Apple iOS platform. The app can display pictures of different objects, and a voice will pronounce the Mandarin words corresponding to those objects when the user taps on a particular object on the screen. Its interactive tools also demonstrate on the screen how a particular word should be written in the correct order of its strokes, and provides examples of common phrases where the words are typically used in. (Source: China Daily)

'Death' of XP a warning for China

April 8 marked the end of Microsoft's support to Windows XP. After releasing its last two official patches, Microsoft stopped patching security holes in its 12-year-old operating system. This leaves Windows XP users open to cyber attacks, which will neither be investigated nor fixed. The news is shocking, to say the least, for the more than 200 million Windows XP users in China. Although the expiry of Windows XP is not necessarily a deadly blow to Chinese users, as many media outlets say, the unilateral termination of the service is improper and infringes upon the rights of legal Windows XP users. For many people, the "death" of Windows XP is not only a warning against Chinese people's over-reliance on US information technology, but also a wake-up call to the Chinese IT industry to design and promote its own software. Although earlier this year the Chinese Academy of Sciences said it had developed a new system for smartphones, PCs and tablets, its painstaking efforts show how difficult it is to challenge the three global IT giants, iOS, Windows and Android. (Source: China Daily)

Ericsson sees online gaming transformed

Games-playing is being transformed, driven by a wave of new devices like smart phones and tablets, faster Internet connections and the rising interest of players of varied demographics, according to a new report by Ericsson, the world's largest mobile broadband provider. The report – New Way to Play Games – has found that the introduction of personalized, app-based, multi-purpose devices has enabled gaming to reach a much wider audience. In China, up to 60 percent of smart phones sold are installed with different types of gaming applications, and females make up 43 percent of all game players. (Source: China Daily)

* * *

Nanosciences, nanotechnologies, materials & new production technologies

LICP Develops Initiator Integrated 3D Printing Approach

As a potentially powerful manufacturing tool, 3D printing has attracted quite a bit of attention. In cooperation with the University of Western Ontario in Canada, the group for surface and interface of materials at the State Key Laboratory of Solid Lubrication of Lanzhou Institute of Chemical Physics (LICP) of the Chinese Academy of Sciences has developed an initiator integrated 3D printing approach (i3DP) to enable post-printing surface modifications for various applications. Various functional complex structures, including superhydrophili, superhydrophobic, biocompatible, antibacterial, polymeric and metallic structures, can be achieved. With the newly developed technique, researchers are capable of fabricating flexible conductors, ultra-light metal foam, and even pouring water into a sieve which can not be achieved using the traditional method. The technique shows great potential in controlled functionalization of surfaces printed by 3D printing technology and fabrication of functionalized structural materials. It is expected to speed up the application of 3D printing technology in bionics, biomedical sciences, flexible electronics and so on. (Source: CAS)

Determining the Translocation of Nanoparticles

Understanding the factors determining the translocation of nanoparticles (NPs) across membranes is the key to designing versatile NPs for applications in nanotechnology and biomedicine. NP functionalization, for example coating with polymers or ligands, can directly change the NP-membrane interaction and open a way to control the NP cytotoxicity and translocation. Now, reporting in *Nanotechnology*, researchers at the Institute of Chemistry of the Chinese Academy of Sciences in China have revealed the important role of grafted

polymers on the NP surface in its translocation through a fluidic membrane channel. These results reveal the important role of grafted polymers in the NP translocation and may have implications in the design of highly efficient NP delivery. (Source: CAS)

Developing Phosphor-free White Light from Nanopyramid LEDs

Researchers in China have used nitride semiconductor nanopyramid structures to create light-emitting diodes (LEDs) with spectra that are similar to those provided by 'white light' LEDs with yellow phosphors. The researchers are at the Chinese Academy of Sciences's institutes of Semiconductors and Mechanics, and Tsinghua University. A similar CAS/Tsinghua team previously reported such devices, using a polystyrene nanosphere mask to make holes for selective-area growth of nanopyramids. (Source: CAS via Semiconductors Today)

10 completely 3D printed houses appear in Shanghai, built under a day

A group of 3D printed houses, 200 m2 each, recently appeared in Shanghai, China. These building were created entirely out of concrete using a gigantic 3D printer, and each costs only 30,000 RMB ($4,800). The company behind these 3D printed building, Shanghai Win Sun Decoration Design Engineering Co, said it has for years been working on developing the system and its materials. WinSun's 150(L) x 10(W) x 6.6 (H) m gigantic 3D printer is capable of printing entire building within hours. The 'ink' it used is based on high-grade cement and glass fiber. Like traditional 3D printers, the system carefully spills out those materials layer by layer, consistently building upward. (Source: 3ders.org)

QIBEBT Developed Novel Electrochemical Sensors Based on Ordered Mesoporous Carbons

Functional nanostructured materials are extensively studied aiming at improving the sensitivity and selectivity of the chemical/biosensors. The non-silicon based ordered mesoporous carbons (OMCs) are a kind of metastable carbon crystals with large surface area, well-defined pore size, and flexible framework. Recently, an electrochemical sensing system based on OMCs was developed by researchers from Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences (CAS-QIBEBT) and employed to selectively and sensitively detect nitrophenol isomers and nitrophenyl organophosphates in seawater and wastewater. Using hard-template method, LANG Qiaolin and ZHANG Tingting from Biosensing Group of Bioenergy Center synthesized the OMCs. (Source: CAS)

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Environment (including climate change)

China to Finish Analysis of Air Pollutant around Beijing

An analysis of the sources of air pollution in Beijing, Tianjin and Shijiazhuang will be finished by the end of June, an official with China's environmental authority said on 27 April. The environmental authorities are working with the Chinese Academy of Sciences and the Chinese Academy of Engineering to conduct the research and will jointly release reports on the results in the research, said Zhao Yingmin, director of the pollution control and management department of the Ministry of Environmental Protection. (Source: CAS)

China Scientists Blames Everest Shrinkage On Climate Change

Mt. Everest has shrunk by 10% over the last four decades and it is all because of melting ice caused by climate change, a Chinese scientist said on 24 April. Kang Shichang, a researcher at the Institute of Tibetan Plateau Research of the Chinese Academy of Sciences, said the data was based on long-term remote sensing and on-site monitoring of the storied mountain top. Due to ice melt, the glacial lake at the foot of the mountain is now 13 times bigger than it was in the 1970s, Kang told Xinhua news agency. Glaciers in the Tibetan Plateau — the highest in the world — cover an area of about 50,000 square kilometers and are sensitive to warmer weather. Kang said ice melt has sped up since the 1990s. (Source: Forbes)

Linkages between Functional Traits of Tree Species and Environmental Niches

While using phylogenetic and functional approaches to test the mechanisms of community assembly, functional traits often act as the proxy of niches. However, there is little detailed knowledge regarding the correlation between functional traits of tree species and their niches in local communities. Prof. CAO Min and his team of Xishuangbanna Tropical Botanical Garden (XTBG) conducted a study in the 20-ha Xishuangbanna Forest Dynamics Plot (FDP) and the 6-ha Ailaoshan FDP in tropical and subtropical China, respectively. They found that functional traits co-varied with environmental niches at the species level in both of the FDPs, supporting that functional traits can be used as a proxy for local-scale environmental niches. (Source: CAS)

Xinjiang Reserve to Protect Threatened Glacier

A natural reserve will be set up to protect the shrinking Glacier No. 1 in the Tianshan Mountains in northwest China's Xinjiang Uygur Autonomous Region, authorities said on 23 April. All mining sites will be shut down in three to five years in the 948-sq-km protection area, said Zhao Zhigang, an official with Xinjiang's Environmental Protection Department. The regional government will

restrict vehicles on a national highway section near the reserve and strictly ban tourists from entering the protection zone, Zhao said. Authorities will also take measures to deal with wild herb digging activities, he added. (Source: CAS via Xinhua)

China scientists clone 5,000-year-old cypress

A 5,000-year-old cypress tree said to have been planted by Huangdi, the "Yellow Emperor" considered the common ancestor of all Chinese, has been cloned, scientists said on 5 April. Created using asexual reproduction methods such as cuttage and grafting, eight saplings of the ancient cypress tree are growing well, said Jiang Zeping, a researcher with the Chinese Academy of Forestry. The project is of great significance in conservation of genetic resources and protecting ancient rare trees. The Mausoleum of Huangdi is in Huangling County, Shaanxi. The area boast many well-preserved ancient cypress groves, with more than 30,000 trees aged 1,000 years or more. (Source: Xinhua)

Plants Used to Weed out Soil Pollution

Chinese scientists have developed soil remediation technologies to prepare for large-scale applications. The technologies focus on using plants to absorb heavy metal contaminants in soil. The technologies were developed by the Center for Environmental Remediation of the Institute of Geographic Sciences and Resources Research under the Chinese Academy of Sciences, which began research 10 years ago. Soil contamination is serious in China, with large areas of cropland polluted, said Lei Mei, a professor at the center. A report from the Ministry of Environmental Protection showed that about 19.4 percent of farmland in China was polluted, according to Xinhua News Agency. "The publication of the survey result is a milestone for soil remediation in China," Lei said. By 2009, the country had 135.38 million hectares of arable land. Field experiments since 2010 on 60 hectares of polluted land in Hechi, Guangxi Zhuang autonomous region, showed the plant can reduce heavy metals by 10 percent a year, which means it can help reduce pollutants to safe levels within three to five years. The scientists have promoted planting of the fern among local farmers. (Source: CAS)

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Energy

China's Renewable Energy Opportunity

Chinese soft power has not yet developed the ability to consistently offset the harsh spotlight of Western media, principally because the message it seeks to

send is at odds with the interests of its targeted audience. Meanwhile, economic challenges and corruption revelations have sparked public outcry and triggered social instability and unrest (with 180,000 mass incidents in 2010) at home. Abroad, reports of maritime incidents or PLA training to capture disputed islands contradict the official narrative of a "peaceful rise." It may seem somewhat counterintuitive and certainly some heavy PR would be required, but the environment represents an opportunity for Beijing to transform its public diplomacy. (Source: The Diplomat)

China Most Attractive Market For Clean Energy

China received the most investment for renewable energies in 2013, while Japan's renewable energy market grew the fastest. The Pew Report, Who's Winning the Clean Energy Race? 2013 Edition, has found that China remains the leading destination for investors, even as global clean energy investment fell 11 percent. China remains the leading regional and global market, attracting US$54.2 billion in 2013. Its clean energy sector is shifting from an exclusive focus on exports toward greater domestic consumption, with a nearly fourfold growth in solar power to an unprecedented 12.1 gigawatts (GW). (Source: Asian Scientist)

Reliable Electricity Reaches Qomolangma Base Camp

The base camp of Mount Qomolangma, or Mount Everest, at an altitude of 5,200 meters, now has access to reliable electricity, the Tibet Branch of the State Grid Corporation of China said on 16 April. "Electricity reaching the base camp is as great as humans ascending to Qomolangma's summit," said Gonpo, 81, who was among the first mountaineers to climb to the top of Mount Qomolangma, making history by ascending the mount from its North Col in 1960. Gyalpo, 50, a monk at Rongpo Monastery, can now watch television without interruption for the first time in his life thanks to a two-year rural power grid upgrading project. (Source: CAS)

Hubei opens carbon trading market

Hubei Province became the sixth Chinese region to launch a carbon market as the country deepens efforts to use market mechanisms to reduce energy intensity and emissions. The government has chosen seven cities and provinces to trial carbon trading. Last year, Shenzhen, Shanghai, Beijing, Guangdong Province and Tianjin launched emissions trading markets. Chongqing will be the last to trial carbon trading. The country intends to create a national carbon trading system after 2015. (Source: Shanghai Daily)

Tariffs may be tonic for offshore wind sector

China's wind sector is expected to blow stronger this year as the government may unveil a tariff policy to ensure investment return for developers. While China has become the world's largest wind market, the offshore sector started relatively slowly because of costs. A lack of clear tariff incentives has blocked developers from investing in the offshore sector last year. Though wind farm costs have fallen, idle capacity in many onshore projects has hindered developers from meeting targeted returns. China's total offshore wind capacity stood at 428.6 megawatts at the end of 2013, but only 39MW were installed last year, according to industry figures. (Source: Shanghai Daily)

Cameras prevent poaching in Tibetan reserve

Four cameras at Tibet's Mt. Qomolangma nature reserve will monitor key habitats 24 hours a day, said a senior reserve official on 5 April. The reserve has spent one million yuan (162,000 U.S. dollars) on technology to stop poaching, said Puqung, deputy head of the reserve in southwest China's Tibet Autonomous Region. Patrols and law enforcement in Mt. Qomolangma will also be stepped up to protect wild animals such as snow leopard, Tibetan wild ass and long-tail monkey. The Qomolangma nature reserve, created in 1988, was recognized in 1999 by the United Nations as one of the world's most successful examples of sustainable development. Covering 34,000 sq km, the reserve sits at an average altitude of 4,200 meters and is home to five of the world's 14 tallest peaks. (Source: Xinhua)

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Transport (including aeronautics)

7 people in Shanghai 1st owners of Tesla

Seven people in Shanghai are now the proud owners of a Tesla Model S after they received the keys from Elon Musk, the US electric car company's chief executive, on 23 April. The carmaker also opened a sales and experience center in Jinqiao in the Pudong New Area and two supercharger stations in Jinqiao and Jiading District. (Source: Shanghai Daily)

China's high-speed trains will use 'Chinese chips'

China's first 8-inch IGBT (insulated gate bipolar transistor) chip production line, built by CSR (China South Locomotive & Rolling Stock Corporation Limited) Zhuzhou base, will be put in operation in June 2014. This means that China has broken foreign monopoly on the core technology of high-speed trains, and China's high-speed trains will use the "Chinese chips." The high-speed trains manufactured by CSR, with the domestic 8-inch IGBT chips installed, achieved a speed of over 600 kilometers per hour in the test run. CSR will become the

only company in China which has comprehensively mastered IGBT chip technology R&D, module packaging & testing and system application. (Source: People's Daily)

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Socioeconomic sciences & the humanities, archaeology & paleontology

The Search for the Chinese Workers Who Helped Build America

Researchers are seeking to excavate sites along the Transcontinental Railroad, which changed the face of commerce in the United States. Gordon H. Chang, a professor of history at Stanford University explained that historians have been unable to find even one document written by a Chinese who worked on the transcontinental railroad in the 1860s. The dearth of information inspired Chang and his fellow Stanford professor Shelley Fisher Fishkin to found the Chinese Railroad Workers in North America Project at Stanford, a multi- year undertaking (initially funded by the office of Stanford president John Hennessy) that they hope will recover some of this lost history and give a voice to the Chinese workers. "People in China and America today must know the long ties that have connected them," Chang concluded. "The Chinese were essential to the building of America itself." (Source: Caixin)

4,000-year-old ebony tree unearthed in East China

Part of an ebony tree, which had been buried for about 4,000 years, is unearthed on Wednesday, April 17, 2014, in Wuning, a county in Jiangxi province. Four sections were found, with the longest measuring about 10 meters. They will be preserved and exhibited at Wuning Museum. (Source: People's Daily)

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Space

Drive to eliminate arms race in outer space

China published its first space status report on Thursday April 17, elaborating the current situation and future trends in its international space activities. The report was compiled by the research group of the Qian Xuesen Laboratory of Launch Vehicle Technology. In the next decade, peaceful use of outer space and military applications will enter an unprecedented phase of activity. Voices

calling for a new outer space treaty or "Outer Space Code of Conduct" are becoming increasingly prominent. (Source: People's Daily)

New lunar rover unveiled at Chongqing tech fair

China's space exploration agency unveiled a four-wheeled lunar rover on 10 April, sparking speculation about sending Chinese astronauts to the moon. The vehicle was displayed at the 11th China Chongqing Hightech Fair that open ed in the southwestern metropolis, and instantly attracted afrenzy of attention.R esearch and development for the rover was commissioned jointly by several ce ntral departments that oversee China's space program,including the State Admi nistration of Science, Technology and Industry for National Defense and the Min istry of Education, he said, addingthat the conceptual design began at the end of 2013. (Source: China Daily)

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People & Higher Education

XU Chunye Honored with 2014 "International Materials Science Prize"

Xu Chunye, professor from Hefei National Laboratory for Physical Sciences at the Microscale and School of Chemistry and Materials, University of Science and Technology of China (USTC), was honoured with the International Materials Science Prize in Stellenbosch, South Africa on April 7-11, 2014, becoming the first Chinese laureate since its foundation in 2007. The prize is awarded to those who make distinguishing contributions to the fundamental and application progress in the areas of macromolecule physics and chemistry. It aims to facilitate the development of polymer science by cultivating research talents and encouraging scientific innovations. (Source: CAS)

Manhattan Project Scientist Draws Large Crowds at Universities

Wherever he goes in China, Roy Jay Glauber always attracts enormous attention among science students. During a recent string of lectures at several Chinese universities-the latest one on April 18 at the University of Science and Technology of China — young students most frequently asked him about his expertise in quantum optics, which won him a share of the 2005 Nobel Prize in physics. "Students don't raise many questions in America or in China during large lectures. The lecturers just sound off the lecture and the students ask no questions," said Glauber a day before the April 18 lecture. Many of the young students were interested in the 89-year-old scientist's participation in the Manhattan Project during the World War II. The Harvard professor was recruited into the project in 1943 at the age of 18. (Source: CAS)

Ding Zhongli to Lead UCAS

DING Zhongli, academician of the Chinese Academy of Sciences (CAS) and Vice President of CAS, was named president of the University of the Chinese Academy of Sciences (UCAS) in Beijing. DING's research has focused on Quaternary climate change and associated mechanisms. He made a systematic observation and pedostratigraphic correlation of the loess sequences across the Chinese Loess Plateau, laying a basis for later studies. He was the first to establish a 2.6-Ma orbital timescale of stacked grain-size records for Chinese loess, which is highly compatible with marine isotope records. Currently, UCAS has 12,658 academic advisors, including 330 CAS and/or Chinese Academy of Engineering academicians, and 6,185 doctoral supervisors. The university will welcome its first undergraduates this fall. (Source: CAS)

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Research infrastructures

CAS Magnet Sets World Record

WM5, a resistive magnet belonging to the Chinese Academy of Sciences (CAS) High Magnetic Field Laboratory (HMFL) in Hefei, Anhui Province, sets a new magnetic field world record on April 23. The magnet, with a 50mm working bore, achieved 35.01 Tesla with input of 24MW/36,820A direct current. The Steady High Magnetic Field Facility of HMFL is a national S&T infrastructure project initiated during China's 11th Five-year Plan (2006-2010). WM5 is the second water-cooled resistive magnet in operation at the facility. The entire magnet system, including the supporting power supply, cooling system and central control system, was designed and developed independently by engineers and technicians at HMFL. (Source: CAS)

Intelligence Industry Research Project Launched in E China

A research institute focusing on the intelligence industry was established in east China on Friday to help the country sharpen its competitive edge in an intelligence revolution. The Nanjing Research Institute of Intelligence Industry was created by the Institute of Automation under the Chinese Academy of Sciences (IACAS) in partnership with the Nanjing Qilin Technology Park. Located in Nanjing, capital of Jiangsu Province, the research base consists of an institute, a technology park, a company and a foundation, in addition to a center for international communication, according to the IACAS. (Source: CAS)

Australia-China Mental Health Center Launched

The University of Melbourne-Peking University Center for Psychiatric Research and Training will bring together experts from both institutions to study all aspects of mental health, from biological to epidemiological and psycho-social. The new center is the culmination of a ten-year partnership on issues of mental health between the two universities, led by Melbourne's Department of Psychiatry, and including Asialink, Asia Australia Mental Health and the Peking University Institute of Mental Health. Mental disorders make up approximately 13 percent of the world's disease burden and are one of the largest contributors to all diseases. It is estimated that 173 million Chinese people suffer from a mental disorder, with 92 percent having never received any type of treatment before 2004. (Source: Asian Scientist)

Nation prepares to establish fifth research station in the Antarctic

A groundbreaking ceremony for China's fifth station in the Antarctic is expected to take place during the next South Pole expedition planned for November. "It will take at least three years to build the fifth Antarctic research station because of the short annual construction period and our limited transportation capacity in Antarctica," Qu Tanzhou, director of the State Oceanic Administration's Chinese Arctic and Antarctic Administration, told China Daily on 20 April. Summer at the South Pole lasts from November to February with temperatures struggling to get above -20 C, according to the research center British Antarctic Survey. China's icebreaker, Xuelong, or Snow Dragon, returned to Shanghai on 15 April, finishing the 30th Antarctic expedition. (Source: China Daily)

China's top research vessel on maiden expedition

China's most advanced marine research vessel Kexue embarked on its first scientific mission from Qingdao in Shandong province on Tuesday, exploring the origins of life. Carrying 46 scientists and technicians, it will head for the Okinawa Trough Hydrothermal Zone between the Ryukyu Islands and the Diaoyu Islands for research on the structure, dynamics and consequences of the Western Pacific Ocean System.The vessel features world-class equipment, including a remote operated vehicle, deep-towed vehicle, rock drill and deep-sea exploration and sampling gear, said Zhang Xin, an associate researcher at the Institute of Oceanology under the Chinese Academy of Sciences. Zhang is responsible for the vessel's technology. (Source: China Daily)

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International S&T relations

CAS Institute Obtains International Calibration Accreditation

The Institute of Electrical Engineering of the Chinese Academy of Sciences (IEECAS) has obtained international accreditation for primary photovoltaic (PV) reference cell calibration through a Japan-sponsored program. The program, which was organized by the National Institute of Advanced Industrial Science and Technology of Japan (AIST) and extended from October 2012 to April of this year, conducted the world's first inter-laboratory proficiency testing for photovoltaic reference cell calibration and also conformed to ISO/IEC 17043 standards. The purpose of the testing was to confirm participants' competence in conducting primary calibration of reference PV cells. (Source: CAS)

International Climate Research Office to be Established in Qingdao

A research office for Climate Variability and Predictability (CLIVAR), a core project of the World Climate Research Programme (WCRP), will be set up in the east China coastal city of Qingdao. The office will be established at the State Oceanic Administration (SOA), which signed the agreement with the WCRP, said Ma Deyi, director of the SOA's First Institute of Oceanography, on 14 April. The office will help Chinese scientists take part in international ocean and climate change research and promote scientific research and technologies for climatological observation and prediction in China. CLIVAR was established based on a decision by a joint scientific committee for WCRP in March 1993. It focuses on the role of interactions between the ocean and atmosphere within the climate systém. WCRP is an international research coordination program co-sponsored by the World Meteorological Organization, the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the International Council for Science. (Source: CAS)

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