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Department of International Cooperation
Ministry of Science and Technology(MOST), P.R.China

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Headline News

President Xi Highlights Innovation-driven Development

Chinese President Xi Jinping visited the Chinese Academy of Sciences on July 17 and stressed the importance of keeping a global vision and embracing the pace of time in the development of science and technology. Mentioning that the worldwide research on big science questions and key technologies promise revolutionary breakthroughs in the near future, XI urged the science community to accelerate scientific and technological progress in China in order to keep pace with the world.

In terms of innovation, President Xi emphasized the need to clear institutional barriers impeding innovation capacity, better integrate scientific advancement with economic growth, optimize related policies and improve the evaluation system. He called for stronger support to those fields underpinning economic transformation and

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nurturing new growth poles, strenuous efforts to remove the constraints for sustainable development and better planning for emerging frontier and cross-disciplinary fields. He also said more should be done to mobilize the initiatives and respect the autonomy of researchers in innovation, and build an ecosystem encouraging success and tolerating failure.

According to Xi, China should learn advanced achievements from the world, and more importantly, break a new path that has never been taken before. The science and technology community should, with concerted efforts, build strong confidence, be brave to question existing theories, make new breakthroughs and aim for excellence.

President Xi Jinping listens to briefings on synchrotron radiation facilities during his visit to the Chinese Academy of Sciences on July 17.

(Source: Science & Technology Daily, July 18, 2013)

Minister Wan Attends 5th China-US SED

At the invitation of Dr. John Holdren, Assistant to the US President for Science and Technology and Director of the Office of Science and Technology Policy, Minister of Science and Technology Wan Gang visited the US on July 8 to 11, 2013. During his visit, Minister Wan chaired the 4th China-US Innovation Dialogue, attended the 5th China-US Strategic & Economic Dialogue (SED), and had meetings with Dr. Holdren and Dr. Ernest Moniz, US Secretary of Energy.

During the 5th SED in Washington D.C. on July 10 and 11, Wan made a presentation on scientific and technological cooperation between China and the US, and briefed the audience on the outcomes and consensus achieved in the 4th Innovation Dialogue between the two sieds.

The minister also exchanged views with Dr. Holdren on the Innovation Dialogue and current cooperation between the two countries. On July 11, he also met with Dr. Moniz to discuss carbon capture, use and storage (CCUS) technologies against climate change. Both agreed to continue the bilateral collaborations on Clean Energy Research Center, fossil fuels, energy efficiency and renewable energies as well as Clean Energy Ministerial.

Mr. Jin Xiaoming, Director General of International Cooperation of MOST, and Mr. Li Chaochen, Minister Counselor of the Chinese Embassy in the US also attended the events.

(Source: MOST, July 24, 2013)

VM Cao Jianlin Attends China-CEEC Local Leaders' Meeting

Vice Minister of Science and Technology Cao Jianlin attended the opening ceremony of the Local Leaders' Meeting of China and Central- Eastern European Countries (China-CEEC 2013) in Chongqing on July 3, 2013. He made a keynote speech at the forum on promoting development of provinces and municipalities through cooperation.

VM Cao mentioned great potential in China-CEEC S&T cooperation and he hoped the collaborations could help confront key scientific and technological challenges that affect socio-economic progress and improvement of people's livelihood, and contribute to good solutions for countries' economic prosperity and social development.

As the first gathering of local leaders from China and CEEC, the meeting aims to strengthen closer ties in economy, trade, science and technology, culture and education among the participating countries.

Some state leaders, such as Macedonia Prime Minister Nikola Gruevski, Romania Prime Minister Victor Ponta and representatives of 70 localities from 16 central and eastern European countries were present at the meeting.

(Source: MOST, July 17, 2013)

S&T Management Information

MOST Opens Information on National Science and Technology Programs to Public

A information sharing system on science and technology (S&T) programs was launched in April, providing information on S&T resources to the public. Through the network, the public could have access to all sorts of resources in the arena of public health and agriculture, including experimental reports, databases, theses, books, patents, standards, new varieties and other achievements. With this system, S&T resources and research findings will be applied to underpin innovation and economic growth, rather than being put on the shelf.

The findings of national S&T programs are valuable resources for innovation and socio-economic development. Since 2012 data collection has made significant progress. A variety of information on a total of 1,923 projects in public health and agriculture was collected, including 2,110 experimental reports, 743 databases, 46,449 theses, 1,443 books, 1, 456 standards, 10,263 patents, 1,327 research findings, 1,351 new varieties, 9,086 physical resources and 400 sets of large-size facilities and equipment, based on which the system was built up and came into use.

(Source: MOST S&T Infrastructure Center, April, 2013)

Matchmaking Meeting for S&T Start-ups Held in Beijing

A matchmaking meeting for S&T start-ups was organized by the Center for Science and Technology Personnel Exchange and Development Service (Center), MOST in Beijing on July 10, 2013. The event provided a platform, bridging start-ups with capital, encouraging the growth of entrepreneurs and S&T firms through support of capital force and financial leverage.

Through road shows, comments by senior investors, prediction of technologies and B2B meetings, entrepreneurs were brought face to face with financial institutions. Prior to the meeting, the organizer provided tutoring to entrepreneurs on financing and legal practices to prepare them for talks with investors.

Close to 70 venture capitals participated in the event, including BlueRun Ventures, Cowin Venture Capital, IDG Capital and Zero2IPO Venture. Total 7 enterprises in need of capital sent their representatives to the meeting. Through communication and exchanges, the enterprises received offers from investors. One company even got 34 offers from venture capitals and some received invitation from science parks and incubators in Beijing, Shanghai and Nanjing.

To provide better service to start-ups, the Center will host regularly such matchmaking meetings, provide startup tutoring and organize personnel training.

(Source: MOST, August 1, 2013)

Scientific Research Progress and Achievements

Progress of Interferon and Antiviral Research

How interferon functions remains a mystery, despite that the medical community discovered and proved the antiviral function of interferon as early as the 1950s. According to the latest news from Fudan University, the research team led by Director Yuan Zhenghong, National Key Laboratory of Molecular Virology, School of Basic Medical Sciences, discovered that interferon-a plays the antiviral role as it enables a special cell-secreted substances contain antiviral molecules like protein and nucleic acid, and it is such substances that flow among cells and play antiviral functions. The discovery is of great significance to the development of new medicines curing chronic hepatitis B(HB) and other viral infectious diseases. Early in July, the research was published in Nature Reviews Immunology, one of the world's leading journals.

Interferon is a set of multi-functional active protein, with universal antiviral effects. The research team discovered that stimulated by interferon-a, special substances from certain liver cells will be transferred through certain approaches to liver cells that are more susceptible to virus infection, and the protein and nucleic acid that the substances carry will resist or clear HB virus infection.

Researchers said that when it comes to virus mutation and drug resistance, the anti-virus molecules in the special substances resemble "advanced weapons" produced by "ordnance factory of immunity", as they prevent viruses from mutating or resisting drugs. Therefore, the cell-secreted special substances stimulated by interferon-a are featured by broad-spectrum and efficient antiviral functions. At present, the preclinical study on interferon-a is still under way.

(Source: Science and Technology Daily, July 12, 2013)

TCM Brings Hope to Heart Failure Treatment

Can traditional Chinese medicine (TCM) cure chronic heart failure (CHF)? In mid-July, an evidence-based medical research on using Qili (a type of TCM) Capsule to cure CHF was published during the 1st Chinese & Western Medicine Vascular Study Conference. Led by academicians of Chinese Academy of Engineering, Professor Gao Runlin, Professor Zhang Boli and Professor Huang Jun, the research was completed in 15 months by aligning with 23 comprehensive first-class hospitals and collecting 512 cases. The dissertations and special features have been published in Journal of the American College of Cardiology, a world leading journal.

Cardiovascular diseases such as hypertension, coronary heart disease, rheumatic heart disease and cardiomyopathy will all result in heart failure, reduced myocardial systolic and diastolic functions, edema and blood stasis etc.

The research conducted by Chinese scholars found that Qili Capsule, when used to cure heart failure, can enhance myocardial systolic and diastolic functions, remove edema, dilate blood vessels, inhibit excessive activation of neuroendocrine system and suppress myocardial remodeling. The medicine could reverse the process of heart failure, cure myocardial remodeling and improve patients' prognosis. The multi-channel, multi-link and multi-target treatment for CHF can enable patients to gradually eat less or stop using other western medicines, thus dramatically bringing down medical expenses. According to the Journal of the American College of Cardiology, the medicine "opened a door for treatment of heart failure."

(Source: Science and Technology Daily, July 15, 2013)

Chinese Enterprises Develop a New Type of Cranes

In order to help petrochemical enterprises lift large tank reactors, Taiyuan Heavy Machinery Group, China Chemical Engineering Second Construction Corporation and Synfuels China jointly developed a new type of duplex hydraulic crane. It is not only the largest hydraulic lifting crane, but also a unique equipment with the largest lifting capacity and the highest lifting height in the world. The lifting capacity of the crane could reach 6,400 tons, equivalent to the weight of 100 railway wagons, and its load lifting height could stand at 120 meters above ground. Compared with common large crawler cranes, the new crane is featured by sound lifting performance, low manufacturing cost, convenient use and high adaptability. Among equipment of the same kind, the new crane is the lightest in weight, small in size and easy to be installed and transported. With shortened operation cycle and reduced operation cost, the newly developed crane can generate sound economic and social benefit.

(Source: Science and Technology Daily, July 15, 2013)

China Presented at 2nd APEC Meeting on PPSTI

The 2nd APEC meeting on Policy Partnership on Science, Technology and Innovation (PPSTI) was held from July 1 to 3 2013 in Medan, the third largest city in Indonesia. About 60 participants took part in the meeting, including officials from APEC Secretariat, representatives from APEC Business Advisory Council, representatives from Macao China, the Association of Pacific Rim Universities and 18 economies like China, Indonesia, the US and Russia, etc. Delegates from governments, industries, universities and research institutes made active inputs to the discussion. The Chinese delegation led by Mr. Chen Linhao, Deputy Director-General of International Cooperation, MOST, attended the meeting.

Following the topics on the 1st PPSTI, the draft strategic plan was further discussed over this meeting. Representatives from various parties offered constructive suggestions on mission statement and the implementation deadline. In addition, the 2nd PPSTI deepened the discussions on relevant indicators, activities, approaches and expected outcomes through three parallel sessions on S&T capacity building, improvement of the innovation environment and the strengthening of regional connections. Representatives from various economies also presented their S&T cooperation programs.

DDG Chen Linhao, the first Vice-Chairman of the 2nd PPSTI, gave a snapshot of China's initial plan of the upcoming S&T cooperative projects from 2013 to 2014. He also invited all member economies to participate in a series of S&T innovation projects during APEC Summit to be held in China in 2014.

Chinese delegation at the 2nd APEC meeting on PPSTI

(Source: MOST, July 18, 2013)

2013 EAPSI-China Launched in Beijing

The opening ceremony of 2013 EAPSI in China for US Graduate Students in Science and Engineering was launched in Beijing on June 11. The EAPSI program is co-sponsored by the Ministry of Science and Technology of China (MOST), the Chinese Academy of Sciences (CAS), the National Natural Science Foundation of China (NSFC) and the National Science Foundation of the US (NSF) and organized by the China Science and Technology Exchange

Center (CSTEC).

Deputy Director-General Chen Heping of CSTEC, ESTH Counselor Erica Thomas from the U.S. Embassy in Beijing, Director Emily Ashworth of NSF Beijing Office, and representatives from MOST, CAS and NSFC briefed 30 EAPSI fellow students on recent China-US collaboration on science and technology as well as the EAPSI program in China, and encouraged them to carry out joint research and enhance friendship with their Chinese partners during their stay in China. Relevant officials from the American and Oceanic Division of the International Cooperation Department of MOST and CSTEC attended the ceremony.

After the opening ceremony, the 30 students from renowned universities across the US would participate in an adaptive training to learn about China's political system, history and culture through lectures, discussions and site visits. In the following 7 weeks, they would conduct research in some fields including ecology, biology, geology, math, physical chemistry, computer technology, engineering science, earth and environment, etc. under the guidance of their host institutes located across China.

Since 1994, EAPSI program has been implemented for 10 years in China and highly regarded by governments and academia from both countries. This year is the second year for the program to be opened to universities and institutes all over China.

(Source: MOST, July 10, 2013)

Cooperation Projects and Channels

International S&T Cooperation Base (17): International S&T Cooperation Base on Environment and Energy at University of Science and Technology Beijing

Approved by the Ministry of Science and Technology in 2011, an international S&T cooperation base on environment and energy was established in University of Science and Technology Beijing. The base has 27 permanent employees and 80 temporary employees. It has research collaborations with counterparts in the US, Germany, Japan, ROK, the UK, Canada, Russia, EU and UNEP. The base has hosted and participated in a number of international academic conferences, which helped improve its research activities. The scientists of the base have led or taken part in many research projects supported by major national programs, such as the 973 Program, the 863 Program, National Science and Technology Major Projects, National Natural Science Foundation, International Cooperative Projects and National Key Technology R&D Program. The base is well recognized both at home and abroad for its achievements in environmental biogeochemistry and biological response, flue gas desulfurization, efficient energy exploitation, research and application of non-linear penetration theory and recycling of solid wastes.

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International Training Workshop on Cataract Prevention and Treatment

October, 2013

Changsha, China

Working Language: English

Objectives:

The aim is to help to solve the technical and infrastructural difficulties of cataract subspecialty for other developing countries; to raise cataract screening rate and CSR level and help patients with the elimination of avoidable blindness; to promote clinical, academic, technical and administrative cooperation with other developing countries in ophthalmology.

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