# CHINA SCIENCE AND TECHNOLOGY NEWSLETTER

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

*No.4*
*February 25 2014*

**Special Issue: International S&T Cooperation Award**

- **A Briefing on International S&T Cooperation Award**
- **Vice-premier Liu Yandong Meets with Foreign Experts Winning International S&T Cooperation Award**
- **Address by Vice-premier Liu Yandong at the Meeting with Winners of 2013 International S&T Cooperation Award**
- **The Winners of the International Science and Technology Cooperation Award of the People's Republic of China 2013**

## A Briefing on International S&T Cooperation Award

Established in 1994 and first granted in 1995, the International Science and Technology Cooperation Award (ISTC Award) is a national award for science and technology. According to the Regulation on National Awards for Science and Technology, the ISTC Award is bestowed upon foreigners or foreign organizations that have made significant contributions to China's development in S&T. The Award is given to no more than 10 candidates each year. From 1995 to 2013, 87 foreign experts and one international organization (International Rice Research Institute) from 17 countries have won the ISTC Award (See list below).

Monthly-Editorial Board:Building A8 West, Liulinguan Nanli, Haidian District, Beijing 100036, China
Contact: Prof.Zhang Ning E-mail: zhangn@most.cn hixiaosun@163.com http://www.caistc.com

**Country and winner with ISTC Award**

| Country | Number | Country | Number |
|---|---|---|---|
| US | 27 | Brazil | 2 |
| Germany | 15 | Australia | 2 |
| Japan | 11 | Netherlands | 1 |
| France | 6 | Singapore | 1 |
| UK | 5 | Cuba | 1 |
| Italy | 4 | Switzerland | 1 |
| Canada | 4 | India | 1 |
| Russia | 3 | Denmark | 1 |
| Sweden | 2 | | |

## Vice-premier Liu Yandong Meets with Foreign Experts Winning International S&T Cooperation Award

On January 10, Liu Yandong, Vice-premier and Member of the Political Bureau, met with experts winning the International S&T Cooperation Award (ISTC Award) and granted medals for them. They are Dr. Fabio Rocca, Italian expert of radar remote sensing, Dr. Hse Chung-Yun, American wood scientist, Dr. Wang Zhonglin, nano-material scientist, Dr. NI Jun, expert of advanced manufacturing, Dr. Jan Eduard Harff, German marine geologist, Dr. Herbert Jäckle, developmental biologist, and Dr. Arun S. Mujumdar, expert of drying technology.

Vice-premier Liu extended her congratulations and gratitude to the award-winners on behalf of the Chinese government. She remarked that international experts, including these ISTC award-winners, have devoted over the years to China's development of science and technology and made tremendous contributions to promoting China's scientific and technological cooperation with the rest of the world, facilitating China's development and modernization together with their Chinese counterparts.The vice-premier expressed that China will stick to the innovation-driven development strategy, deepen its reform, open wider to the outside world, strengthen international S&T cooperation, and strive for mutual benefits, win-win outcomes and common development with other countries. She pointed out that Chinese government will provide international experts with better environment and more standardized services for their work in China, so as to expand international cooperation.

Vice-premier Liu also held talks with experts winning awards for natural sciences, technical invention, and scientific and technological progress such as Yuan Longping and Zhao Zhongxian, listening to their advice for the work of science and technology. She hoped that the experts could shoulder the responsibility of building China into a strong power in S&T, devote themselves to the reform of the scientific and technological management system, work hard to create more achievements in science, technology and innovation, accelerate the building of an innovative country, thus making greater contributions to the building a moderately prosperous society and realizing the Chinese Dream.

On January 10, Liu Yandong, Member of the Political Bureau and Vice-premier, met with winners of 2013 International S&T Cooperation Award at the Great Hall of the People, and conferred medals upon them. (Xinhua/Wang Ye)

Group Photo of Vice-premier Liu and the award-winners. (Xinhua/Wang Ye)

(Xinhuanet, January 13, 2014)

# Deepen International S&T Cooperation and Jointly Create a Better Life
# Address by Vice-premier Liu Yandong at the Meeting with Winners of 2013 International S&T Cooperation Award
# January 10, 2014

Today, 2013 top science award ceremony is held at the Great Hall of the People. President Xi Jinping and Premier Li Keqiang conferred the awards upon the winners, among whom 8 are foreign friends winning the 2013 International S&T Cooperation Award. On behalf of the Chinese government, I would like to extend my warm congratulations to all of you. I would also like to thank you for your outstanding contributions to China's development of science and technology.

For a long period of time, the Chinese government has been embracing and encouraging the participation and devotion of foreign experts to China's scientific and technological development. Launched in 1995 by the Chinese government, the ISTC Award has been granted once a year, to honor foreign experts and international organizations who have made tremendous contributions to development of science and technology in China and the world at large. Up to now, a total of 87 foreign experts and one international organization have won the Award. Participating in China's S&T development with their wisdom, passion, knowledge and hard work for years, foreign experts, especially the ISTC award-winners, have worked with their Chinese counterparts to promote China-foreign exchanges in science and technology and have made fruitful results. You are close friends of the Chinese people, the envoys of China-foreign exchanges, and the significant contributors to the modernization of China. The great achievements we have made in China's scientific and technological development and construction of the modernization were also closely related to your efforts and support. The Chinese government and people will always remember what you've done in scientific and technological development and progress of society for this country.

In today's world, science and technology have become the most dynamic and revolutionary force in driving economic and social development. Science and technology are developing in leaps and bounds; knowledge creation and technical innovation are markedly accelerating; revolutions and breakthroughs

are being generated continuously in science and technology. All these will exert powerful influence on human development in the 21st century. With the deepening of economic globalization, it has become a common understanding and an important approach that all countries should enhance the international cooperation, so as to promote science, technology and innovation. Tackling global challenges and realizing sustainable development through scientific research and technological innovation have become the strategic choice for all countries. All humans live on the same planet and science respects no national boundaries. Therefore, it should be the common aspiration that international cooperation in science and technology holds the key to dealing with many common challenges facing humans, bringing about peace, prosperity and progress to society, as well as ensuring the better lives for people.

35 years have elapsed since China's reform and opening-up. Thanks to ceaseless efforts of the people, Chinese economy and society have witnessed a sea change. However, China is still the biggest developing country with a low per capita GDP level and a huge amount of low-income people. With regard to development in science and technology, China still lags far behind certain developed countries, especially those strong powers in S&T. President Xi Jinping recently put forward that the country should be more prosperous, the people should enjoy happier lives, and the Chinese Dream of rejuvenating the country should be realized. People of all nations aspire for a bright future. We share the same aspiration with people all around the world. China's reform and development will not only benefit its people and bring a new look to China, but also create new development opportunities for all the others in the world.

In 2013, the Third Plenary Session of the 18th CPC Central Committee ushered in the comprehensive deepening of reform at a new starting point, and made thorough arrangement for the reform, covering areas of economy, politics, culture, society and eco-civilization. The reform would be unprecedentedly extensive and intensive.

The reform of the management system for science and technology is an important component of the state's overall reform, which is aiming to make the country more prosperous, make the society more fair, and bring people more happiness. The Chinese government has always been paying much attention on the work of S&T. Against the background of the world financial crisis in 2008, the government input on science and technology has been keeping increase at an annual rate of 20 percent. In the process of building a moderately prosperous society and realizing the Chinese Dream, the government will continue its reform, open wider to the outside world, accelerate the implementation of the innovation-driven development strategy, focus on scientific and technological innovation for national development, and further give full play to the role of S&T in driving and supporting economic development. The government will utilize the funding for scientific research in a more cost-effective manner. On the one hand, the greater support will be given to the basic research, contributing to scientific and technological progress for human being; and on the other hand, research and development on the applied technology will be supported continuously, ensuring the scientific and technological development in light of the requirement for improvement of people's livelihoods, and the economic growth, and social progress.

In the meantime, China will continue to strengthen international cooperation in S&T. With more open mind, better environment and more standardized services, the government will give strong support to scientific exchanges and cooperation with international experts and organizations. The country will endeavor to realize mutual benefits, win-win outcomes and a common development with other countries through international cooperation. The experts here are all the envoys disseminating science and technology between China and the world, playing a role for promoting personnel exchanges. Therefore I sincerely hope that scientists at home and abroad will join hand-in-hand to create better lives for people through scientific and technological development, thus making further contributions to economic prosperity and social progress for all countries.

(S&T Daily, January 14,2014)

# The Winners of the International Science and Technology Cooperation Award of the People's Republic of China 2013

## Dr. Fabio Rocca
## Italy

Dr. Fabio Rocca (born in January 1940) is an Emeritus Professor of Telecommunications at the Politecnico di Milano (Polimi), Italy. As a world-class specialist in the field of radar remote sensing, he was nominated by the European Space Agency (ESA) as the chief scientist. He has also taken chairmanship and membership in a few European scientific committees and won a few international awards.

Prof. Rocca has made prominent contributions to SAR remote sensing. In 1991, he proposed the use of twin ESA ERS satellites for SAR interferometry (InSAR) to carry out the first tandem experiment, which significantly boosted the research and application of InSAR technology. In late 1990s, he developed the Permanent Scatterer TMInSAR technique and has been leading research in this field to date.

Since 2004, within the framework of joint ESA-MOST (DRAGON Program), Prof. Rocca has been committed to the dissemination and promotion of InSAR techniques in the field of earth science. He has been the Principal Investigator (PI) of the theme "Terrain Measurement" under the DRAGON Program. Over the years, Prof. Rocca has worked closely with Chinese researchers in earth science and given lectures in many training courses held in China.

## Dr. Hse Chung-Yun
## USA

Dr. Hse Chung-Yun (born in February 1935) is a wood scientist and currently a principal wood scientist at the US Forest Service Southern Research Station. Prof. Hse is also an elected fellow of the International Academy of Wood Science (IAWS). His long list of honors and awards includes the US Department of Agriculture Honor Award for Superior Service for innovative research and the Friendship Award from the State Administration of Foreign Experts Affairs of China.

Prof. Hse was one of the few pioneers that launched China-US cooperation in forestry in the first few years of China's Reform and Opening-up. In 1980 he arranged the visit of the first Chinese forestry delegation to the US. Ever since then, Prof. Hse has directly advised more than 80 Chinese scholars in his lab. Prof. Hse has also brought some advanced concepts, technologies and research platforms to China. His influence has extended to the development of science and technology platforms for wood science and forest products as well as the implementations of many key projects in China. He has

contributed significantly to the rapid assessment of wood properties of plantation forest, efficient utilization of wood and bamboo and new biomass materials in China, which has substantially narrowed the gap between China and developed countries in these areas. As a world renowned wood scientist, he has visited China for 62 times, leaving footsteps in 26 provinces and cities, and building long-term partnership with many universities and institutes including Chinese Academy of Forestry, International Center for Bamboo and Rattan, and Nanjing Forestry University. On his recommendation, a greater number of Chinese scholars are now serving important positions in international organizations.

## Dr. Jan Eduard Harff
## Germany

Dr. Jan Eduard Harff (born March 1943) is a marine geologist and former head of marine geology section in Leibniz Institute for Baltic Sea Research, Warnemünde (IOW) (1992-2008). He also holds important positions in a number of international academic institutions: foreign member of Russian Academy of Natural Sciences and Lithuania Academy of Sciences, professor of University of Szczecin in Poland as well as guest professor of Guangzhou Marine Geological Survey, Sun Yat-Sen University, and Chinese Academy of Sciences.

Devoted to the geological research for more than 40 years, Prof. Harff has obtained fruitful achievements. He was awarded the William Christian Krumbein Medal by the International Association for Mathematical Geology in 1996, and the Serge von Bubnoff Medal by the Association for Geo-Science of Germany in 2009.

Having worked with Chinese partners for more than two decades, Prof. Harff has made tremendous contributions to marine geology development in China. The advanced technology he introduced has led to significant innovative results in three major coastal economic circles (Bohai Bay, Beibu Gulf and Pearl River Delta) in China and promoted social and economic progress in these regions. He has played a leading role in setting up marine geological cooperation platform between China and other countries and has facilitated important cooperation for five times. Besides, he has recommended Chinese scientists to chair the International Geological Conference, which has greatly improved their reputation. He also proposed to establish a long-term multilateral cooperation mechanism among China, Germany, Poland and United Kingdom in a bid to promote international cooperation in marine geology and elevate China's marine geology research to the world advanced level.

## Dr. Herbert Jäckle
## Germany

Dr. Herbert Jäckle (born July 1949) is a developmental biologist, Vice President of Max-Planck Society and Director of the Institute for Biophysical Chemistry. He is also holding membership of the Academy of Europe and German National Academy of Sciences Leopoldina. He has been awarded the Innovation Prize of German Federal President and many other prizes.

Prof. Jäckle is devoted to the use of model organism to reveal biochemical pathways and molecular mechanism of regulatory networks. Until now, he has published 53 academic works and nearly 200 papers on academic journals like Nature, Cell and Science. He is the leading figure in the research of drosophila developmental biology in today's world.

Since 1980s, Prof. Jäckle has given lectures in China for many times as a visiting scholar and helped train overseas Chinese students. When serving as Vice President of Max-Planck Society, he has dedicated himself to promoting the cooperation with China. In 2005, thanks to the joint efforts of China and Germany as well as Prof. Jäckle's hard work, CAS-MPG Partner Institute for Computational Biology (PICB) was established in Shanghai. As a new type of international research institute, PICB marks that science and technology cooperation between China and Germany has reached a new level. This institute has attracted many international researchers, established China's comparative advantages in computational biology, and played an active role in deepening China's international S&T cooperation.

## Dr. G. A. Zherebtsov
## Russia

Dr. Geliy Alexandrovich Zherebtsov (born September 1938) is a space physicist and one of the founders of space weather in Russia. He is a full member of the Russian Academy of Sciences with more than 240 publications in academic journals. He was awarded numerous honors, such as the Order of Service to the Fatherland, Order Sign of Honor, and Medal for Valorous Labor to Mark Centenary of V.I. Lenin, for his prominent contributions to scientific research.

When serving as the director of Institute of Solar-terrestrial Physics of Russian Academy of Sciences (ISTP, RAS), Prof. Zherebtsov dedicated himself to promoting scientific cooperation between the Chinese Academy of Sciences (CAS) and RAS. In 2001, thanks to his efforts, RAS and CAS jointly established Russia-China Joint Research Center on Space Weather. Within this framework, scientists from both sides have conducted exchanges and mutual visits, won financial support from more than 20 cooperation funds, jointly published over 80 papers and organized 11 bilateral workshops. Up to date, almost all the major institutes of space weather in Russia are involved in the scientific exchanges. Prof. Zherebtsov facilitated the signing of the 3rd-phase

Agreement and Charter for Russia-China Joint Research Center on Space Weather between ISTP and NSSC in April 2012, paving the way for cooperation in the next five years.

Moreover, Prof. Zherebtsov promoted the exchange of ground-based observation data and supported the extension of International Space Weather Meridian Circle Program (ISWMCP) to the North by taking the initiative to sign the ISWMCP Agreement with CAS. Currently, he devotes himself to facilitating Russia's participation in the Kuafu Program, a mission in CAS Strategic Pioneer Program on Space Science for deepening Russia-China cooperation in space weather.

## Dr. Wang Zhonglin
## USA

Dr. Wang Zhonglin (born November 1961) is a nano-material scientist, foreign member of Chinese Academy of Sciences (CAS) and member of the Academy of Europe. He is currently the Hightower Chair in material science and engineering, Regents' professor and distinguished professor in engineering at Georgia Institute of Technology, USA.

Prof. Wang has made profound contributions to education and scientific development in China. Since 1992, he has carried out in-depth and high-level collaboration with Chinese universities and research institutes such as Xiamen University, Peking University, Institute of Physics (CAS), Tsinghua University and University of Science and Technology Beijing. While working on difficult scientific issues, Prof. WANG and his Chinese partners made a number of original research achievements and jointly published over 200 science papers, which expanded the international impact of China in related research fields. He has also promoted the construction of China's frontier research centers and platforms, and participated in the construction of several national research centers and platforms, such as National Center for Nanoscience and Technology. Prof. Wang has also made contributions to talent cultivation and higher education reform in China.

## Dr. Arun S. Mujumdar
## Canada

Dr. Arun S. Mujumdar (born in January 1945) is a professor in the Department of Mechanical Engineering at National University of Singapore and is world famous for his expertise in drying technology. He is a fellow of Canadian Institute of Chemistry (CIC), American Society of Mechanical Engineers and Singapore Academy of Engineering (IES). He has also received many international awards in the drying field, such as

"World's Top Award", "Lifetime Achievement Award", and "Outstanding Global Leadership Award".

In 1984, Prof. Mujumdar began to help China train its researchers, develop new drying technologies and promote the food drying industry. He has been working with Jiangnan University, Tianjin University of Science and Technology, and Chinese Academy of Forestry to supervise over 20 PhD students/Postdocs and more than 10 graduate students. Together with professors in the three universities, he has published 97 academic papers in international journals.

He is highly involved in developing a number of top-notch drying technologies, which are used in a dozen Chinese companies, including Haitong Food Group, Luhua Group and Wuxi Linzhou Drying Equipment Company. This achievement was awarded the 2nd prize of China National Scientific and Technological Progress Award in 2012 and has contributed greatly to the technological advancement in food drying and equipment industry.

## Dr. Jun Ni
## USA

Dr. Jun Ni (born in November 1961) is an expert in the field of advanced manufacturing. He is a Shien-Ming (Sam) Wu Collegiate Professor of Manufacturing Science at the University of Michigan, and has won the Presidential Faculty Fellow Awards (1994), William T. Ennor Manufacturing Technology Award of the American Society of Mechanical Engineers (2009), Gold Medal of the International Society of Manufacturing Engineer, Shanghai Magnolia Gold Award, etc. He is the Dean of UM-SJTU Joint Institute, Vice Chairman of the Global Agenda Council on Advanced Manufacturing of World Economic Forum and a senior adviser to the President of Shanghai Jiao Tong University.

In the past 20 years, Prof. Ni has devoted himself to the research collaboration in advanced manufacturing between China and the United States. He introduced the advanced quality control (2mm Project) system of vehicle manufacturing to China, and advanced Chinese auto body manufacturing technology by elevating the vehicle-body quality of more than 20 different car models to world-class level. Also, he helped launch the 2-micrometer precision manufacturing study for automotive powertrains and thin-walled structure micro-manufacturing technology, boosting China's research in manufacturing technologies of motors and fuel cell metallic bipolar plate.

Besides, he founded the UM-SJTU Joint Institute to bring to China the international education collaboration and competitive talent development model, and this new approach is being adopted nationwide. Moreover, he is bridging the research between the two countries by establishing joint research bases, including the GM Collaborative Research Lab in Advanced Vehicle Manufacturing and PACE Center of Shanghai Jiao Tong University, which have significantly improved the teaching and research level in China.

(Editor's Note: All news in the issue are translated from Chinese texts for your reference. They are subject to checks and changes against official release of original Chinese or English texts.)