



# 中华人民共和国科学技术部

Ministry of Science and Technology of the People's Republic of China



## CHINA S&T NEWSLETTER

No.2 2019

### Content

National Science and Technology Award Conference



Projects awarded at the 2018 National Science and Technology Award Conference: the world's first U-shaped TBM applied in Baicheng

## **National Science and Technology Award Conference**

On January 8, 2019, the CPC Central Committee and the State Council held the National Science and Technology Conference in Beijing. Xi Jinping, Li Keqiang, Wang Huning, Han Zheng and other state leaders attended the event. Xi Jinping and other leaders granted the certificates to the awardees. Premier Li Keqiang delivered a speech on behalf of the CPC Central Committee and the State Council. Han Zheng hosted the conference.

A total of 278 projects and 7 experts were granted the National Science and Technology Awards in 2018. Among them, two were awarded the State Preeminent Science and Technology Award; 38 projects won the State Natural Science Award, among which one was first prize and 37 were second prize; 67 projects won the State Technology Invention Award, among which four were first prize and 63 were second prize; 173 projects were granted the State Science and Technology Progress Award, among which two won the grand prize, 23 the first prize and 148 the second prize; five foreign experts were awarded the International Science and Technology Cooperation Award of the People's Republic of China.

(Source: MOST)

### **I. State Preeminent Science and Technology Award**

The State Preeminent Science and Technology Award was set up in 2000. As the highest honor for China's science community, the award is given to no more than two candidates each year. The top award is granted to scientists or engineers who makes major breakthroughs in contemporary science and technology frontiers, contributes tremendously

to S&T development or creates massive economic or social benefit in STI, translation of research findings and industrialization of high technologies.

The government has set up a committee for the national science and technology awards, and invited relevant experts and scholars to form an evaluation committee. The State Preeminent Science and Technology Award is signed and agreed by the President, who confer the certificates and bonus upon the awardees. The State Council decides the amount of the bonus. For the 2018 State Preeminent Science and Technology Award, the bonus was increased from five million yuan/person to eight million yuan/person, and all the bonus goes to the laureate.

### **Laureates of the 2018 State Preeminent Science and Technology Award**

#### **1. Liu Yongtan**



Liu Yongtan is a renowned radar technology and signal processing expert, founder of the radar theory of new system for ocean exploration and pioneer of leapfrog development of remote ocean exploration technologies. Liu has helped develop an invincible army devoted to STI development concerning coast defense and produced a large number of outstanding scientists

and engineers for national defense, including CAS and CAE members, presidents of universities and chief engineers.

## 2. Qian Qihu



Qian Qihu is a renowned protective engineering expert, founder of modern protective engineering theory, founder of the protective engineering discipline and pioneer of STI development concerning protective engineering. He has made outstanding contributions to the development of protective engineering in all stages. As a leading expert in China's protective engineering community, he founded the discipline and academic organizations of protective engineering in the country, produced over 50 doctors and a large number of high-end middle-aged and young talents, put in place the national key discipline, state key labs and national innovation research cluster, and promoted our military protective engineering development to defend against others' nuclear weapons and precise strike of new-type conventional weapons.

## II. International Science and Technology Cooperation Award

Set up by the State Council in 1994, the International Science and Technology Cooperation Award is a national-level S&T award that starts to be granted in

1995. This award is given to foreign scientists, engineers, technology management experts or organizations that make important contributions to China's S&T development in bilateral or multilateral S&T cooperation.

## Laureates of 2018 International Science and Technology Cooperation Award

### 1. Jan Dean Miller



Dr. Jan Dean Miller (American) is the Distinguished Professor of Metallurgical Engineering and Ivor D. Thomas Endowed chair at the University of Utah and a member of the National Academy of Engineering, USA. Prof. Miller is a famous scientist in the field of metallurgy and mineral processing. He is a pioneer scientist that applies X-ray microtomography to 3D mineral liberation analysis. Over the past 35 years, Prof. Miller has been dedicated to promoting cooperation between China and USA and bringing advanced mining technologies and development concepts to China. He has been engaged with Chinese universities, research institutes and enterprises for years, making outstanding contributions to the development of modern mining and metallurgical technology in China.

## 2. James Fraser Stoddart



Dr. James Fraser Stoddart is an internationally renowned British-American organic supramolecular chemist. He is a member of the American Academy of Arts and Sciences, USA, a fellow of the Royal Society, a foreign member of the Royal Netherlands Academy of Arts and Sciences, a member of the Academy of Natural Sciences (Leopoldina), Germany and a foreign member of the Chinese Academy of Sciences. Dr. Stoddart won the Nobel Prize in Chemistry in 2016. Prof. Stoddart has been promoting the China-USA cooperation in science and technology and conducting exchanges and cooperation with Chinese scholars in molecular science. He donated and set up a talent fund in China to encourage outstanding young Chinese talents to engage in chemical research, and organized a series of high-standard academic conferences in China. This has strongly contributed to the cultivation of talents and the building of first-class disciplines in China.

## 3. Yimei Zhu

Dr. Yimei Zhu (American) is a tenured Senior Physicist at the Brookhaven National Laboratory (BNL) in the United States. He is the Founding Director of the Institute for Advanced Electron Microscopy, and Cofounder &



Facility Leader of the Center for Functional Nanomaterials at BNL. Prof. Zhu is a world-renowned scientist in the field of electron microscopy and materials physics. Prof. Zhu has made great efforts to promote scientific exchange and cooperation between China and USA. He has organized high-level bilateral workshops on superconductivity and quantum materials, which has opened up new opportunities and mechanisms for cooperation between the Chinese Academy of Sciences (CAS) and the US Department of Energy. He has been working actively for bilateral research cooperation, making contributions to the technical development of atomic-scale characterization and electron microscopy and establishment of several large state-of-the-art electron microscopy user facilities in China.

## 4. Peter George Brewer



Dr. Peter G. Brewer (American) is the Senior Scientist of the Monterey Bay Aquarium Research Institute (MBARI), and the former director of MBARI. He is also a Fellow of the American Geophysical Union (AGU) and the American Association for the Advancement of Science (AAAS). Dr. Brewer shared the 2007 Nobel Peace Prize and in 2016, he received the Maurice Ewing Medal, the highest honor in oceanography awarded by AGU. In 2017, he was granted the Award of International Scientific Cooperation presented by the Chinese Academy of Sciences (CAS). Over the last decade, Dr. Brewer has been cooperating with Chinese scientists and promoting the development of China's deep-sea exploration technologies. In addition to cooperation with the CAS, he has also conducted in-depth cooperation with Peking University, Xiamen University, Ocean University of China, thus promoting the leapfrog development of China's deep-sea research.

professor of the Swedish Research Council. Over the past 18 years, Prof. Sun has promoted the scientific collaborations between China, Sweden and other countries, which made a great contribution to the improvement of education and research in China, particularly in the fields of fundamental research of artificial photosynthesis.

## **5. Licheng Sun**



Dr. Licheng Sun (born in August, 1962) is a professor at KTH Royal Institute of Technology, Sweden. He is an expert in artificial photosynthesis, member of Royal Swedish Academy of Engineering Sciences, and the national distinguished