

Thumbs Up for Young Researchers

By LI Linxu

As part of efforts to promote sci-tech innovation, the summit forum of the First China Science and Technology Youth Forum was held on May 8 in Beijing.

The forum showcased young researchers' achievements and vitality, said Wan Gang, president of the China Association for Science and Technology (CAST), noting that it has attracted nearly 3,000 young talent to participate.

Striving for excellence

Standing out from previous sub-forums, ten speakers exerted their best to charm the expert panel and audiences to win awards in the summit forum.

The award of Rising Star in Science and Technology went to Wu Xiaojun, professor of the School of Electronics and Information Engineering, Beihang University. Themed with "Love What I Choose, Choose What I Love," she shared her R&D story of generating high energy terahertz radiation from lithium niobate crystals.

This is an unforgettable experience, said Wu, adding that along with preparing for and participating in the forum, she created another world record — the generation of 13.9-mJ terahertz radiation.

The award of Best Suggestions went to You Weiwei, professor of the College of Ocean & Earth Sciences, Xiamen University.

Focusing on germplasm innovation, he shared his 20 years' research story of abalone breeding.

The forum provides a great platform for young researchers, said You, adding that although we come from dif-



The group photo of ten speakers at the summit forum of the First China Science and Technology Youth Forum. (PHOTO: CAST)

ferent sectors, we soon get along well with each other.

The Best Style award-winner Qin Ning, chief engineer of the Shengli Oil-field Geophysical Research Institute under Sinopec, said that the forum provides a unique opportunity for young researchers to exchange with each other, which will facilitate interdisciplinary integration.

She shared her story as a female researcher. Through tireless efforts, she and her team have developed high-precision imaging software modules with independent IPR.

The Best Popularity award-winner Lv Longwei, associate professor and associate chief physician of the Peking University School and Hospital of Stomatology, said she learned a lot from fellow young researchers, and received valuable feedbacks from

expert panel.

With unremitting endeavors, she has tackled a number of bottleneck problems in the field of regenerative medicine.

Challenging but rewarding

Challenging but rewarding are well demonstrated in all of the finalists' R&D road.

R&D in aerospace is indeed challenging, said Zang Jinliang, research fellow of the China Aerospace Science and Industry Corp., adding that fortunately, we have a great team and the older experts always give a helping hand.

Hou Suqing, associate research fellow of the Institute of Modern Physics, Chinese Academy of Sciences, also said that doing basic research is challenging in many ways, including mental stress and paper setbacks, but he found

strength and learned a lot from the scientists of older generation.

Zhong Xing, chief engineer of Chang Guang Satellite Technology Co., Ltd., said that though challenging, the R&D road is also rewarding. Now his R&D achievements have been applied at home and abroad.

Liu Jinglei, deputy director of the Network and IT Technology Research Institute under China Mobile Research Institute, shared his story of tackling computing bottlenecks. In the process, he encountered setbacks, had thoughts of giving up, but eventually rekindled confidence, and got over bottlenecks.

In the field of brain inspired computing research, interdisciplinary exchanges are difficult but in great needs, said Li Huanglong, associate professor of the Department of Precision Instruments, Tsinghua University.

To tackle research bottlenecks, bold thinking and careful verification are both needed, said Tang Minggang, researcher from the China Ship Scientific Research Center, while sharing his technological innovation road in the R&D of marine equipment.

From ocean to universe, the ten speakers presented their stories very well. Through them, we can see the young researchers are shouldering more responsibility and demonstrating good qualities in R&D, said Ye Peijian, academician of the Chinese Academy of Sciences, also member of expert panel, while making comments on the speakers' presentations.

The event, hosted by CAST, is one of a series of activities to implement the spirit of the 20th CPC National Congress, which vowed to cultivate greater numbers of young scientists.

China Passes Law Protecting Qinghai-Tibet Plateau

Policy

By ZHONG Jianli

In late April, a landmark law was passed by China's top legislature aimed at protecting the fragile ecosystem of the Qinghai-Tibet Plateau and promoting its sustainable development.

The Law on Ecological Conservation on the Qinghai-Tibet Plateau, which was approved during a standing committee session of the National People's Congress, will take effect on September 1.

Known as "the roof of the world," western China's Qinghai-Tibet Plateau spans around 2.58 million square kilometers and serves as the origin of several major rivers in Asia, including the Yangtze, Yellow, and Lancang-Mekong rivers.

The law outlines several fundamental principles for the protection of the Plateau's fragile ecology. These principles include prioritizing ecological conservation and natural restoration, adopting coordinated and classified policies and implementing scientific measures.

The law requires the protection and restoration of glaciers and frozen soils, rivers, lakes, grasslands, forests and wetlands, as well as the conservation of biodiversity in the region.



A morning picture of Bangong Lake in the western Qinghai-Tibet Plateau. (PHOTO: VCG)

Delivering Full-service IPR Protection

By CAO Xiuying & CHEN Chunyou

The strong guarantee of dedicated efforts made in the intellectual property rights (IPR) protection field has allowed a growing number of research results with independent IPR to be produced in the fields of crewed space flight, lunar exploration and supercomputers.

China provides a variety of IPR protection services, including authorization review, legal protection, and research result transformation, said Shen Changyu, commissioner of the China National Intellectual Property Administration (CNIPA), at a press conference held by the State Council Information Office on April 24.

Shen explained that CNIPA has initiated a project to enhance the quality of patents by providing prior review, centralized and delayed review on patents of key industries, and improving patent application efficiency of major research results.

In the fields of new energy, biomedicine and seed industry, specialists have been organized and dispatched to central state-owned enterprises, universities and research institutes to provide consulting services throughout the entire process of their innovation activities.

CNIPA has established many national IPR protection centers, with an aim to provide intellectual property administrative protection services to provincial level advantageous industries, including rapid preliminary review, and quick con-

Another measure implemented by the law is requiring the research of wild animal and plant species, strengthening protection of important habitats of wild animals, and protecting rare, endangered or endemic wild animal and plant species on the Qinghai-Tibet Plateau.

Scientific investigations and research are encouraged by the law, in an effort to strengthen monitoring of ecological conditions on the plateau. It supports the building of major sci-tech infrastructure to carry out research on climate change, biodiversity, water resources, snow mountain glaciers and frozen soils, as well as desertification prevention and control.

Coordinated efforts will be made to build sci-tech innovation platforms for ecological protection on the Plateau, increase the training of sci-tech professionals, and promote the application of advanced and applicable technologies in the region.

Relevant provisions also state that provincial-level governments on the Plateau must draw red lines for protecting ice caps and glaciers, and broaden the scope of protection for permafrost regions.

In addition, individuals found littering on the plateau could face fines between 500 RMB (about 72 USD) and 10,000 RMB (about 1,448 USD), according to the law.

Encouraging Medical Graduates to Work in Rural Areas

By CHEN Chunyou

In rural areas, people sometimes have to travel for hours for medical treatment, even when facing an emergency.

Recognizing the importance of creating a healthcare system that is tailored to the needs of rural areas, with a focus on quality and efficiency, efforts are being made by the Chinese government to provide residents with more accessible and comprehensive medical services in their local communities.

In 2020, the National Health Commission (NHC) implemented a policy to encourage medical graduates to work as doctors in rural areas. If qualified, they can apply for medical practitioner regis-

tration without taking additional exams.

This policy is currently being piloted in Hebei, Shandong, Shanxi, Inner Mongolia Autonomous Region, Hunan, Sichuan, and Yunnan, among other regions.

Since the policy's implementation nearly three years ago, more than 4,300 college graduates have been attracted to practice in village clinics and local hospitals. This mechanism has helped optimize the structure of rural doctors and improve the quality of medical and health services.

In April, a follow-up notice was jointly released by NHC and Ministry of Education, as well as four other departments, to further improve the allocation

of physicians in rural and remote areas and promote the quality of rural healthcare, in addition to creating more opportunities for graduates to utilize their professional expertise.

The updated version of the policy made improvements in three areas. Firstly, it is clarified that the post is open to both medical graduates and those who graduated but have been unemployed within two years of graduation.

The policy also requires township health agencies to reserve a certain number of positions for these medical graduates during recruitment. Meanwhile, these medical students are encouraged to obtain the qualification of a licensed assistant physician.

Standards System Unveiled for Carbon Goals

By LI Linxu

In its latest moves to advance green and low-carbon development, China has released a guideline on establishing a standards system for carbon peaking and carbon neutrality.

The guideline, which puts forward a framework for the standards system, as well as a series of basic principles, key targets, and major tasks, was recently released by 11 government bodies, including the National Development and Reform Commission (NDRC) and the Standardization Administra-

tion of China (SAC).

By 2025, no less than 1,000 national standards or industry standards will be established or revised, with a markedly increase in consistency with international standards, and a steady rise in energy consumption and energy efficiency standard indicators in key industries and products, according to the guideline.

The country also aims to take substantive participation in no less than 30 international standards in relevant green and low-carbon fields.

The standards system consists of four primary subsystems, which can be

further subdivided into 15 secondary subsystems, and 63 tertiary subsystems, covering key industries and fields, such as energy, industrials, transportation, construction, agriculture and rural areas.

Standards are an important part of national infrastructure in quality, an important foundation for green and low-carbon development, and are of great significance to reaching carbon goals, said an official from NDRC, noting that the guideline has laid out the key standardization work in carbon peaking and carbon neutrality.

In recent years, great progress has

been made in the standardization works for carbon peaking and carbon neutrality.

There are now more than 1,800 national standards, and 2,300 industry standards in China, covering the accounting and verification of carbon emission, energy conservation, non-fossil energy, new-type power system, resource recycling, and carbon sink.

International cooperation is greatly highlighted in the guideline, proposing to establish a working group on international coordination in relevant standards, and calling for strengthening international dialogue and exchanges.

Scientists Capture First-Ever Image of Black Hole's Accretion, Jet

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The first-ever photo of the M87 black hole was captured using a wavelength of 1.5 mm by the Event Horizon Telescope. However, for the most recent image, scien-

tists opted for a wavelength of 3.5 mm.

Using a wavelength of 3.5mm for the recently released picture allows for a larger telescope array and observes a brighter jet of the blackhole, whereas

the environment around the black hole was barely observable at a wavelength of 1.5 mm, said Lu Rusen, lead author of the research paper from SHAO.

According to Lu, involving ALMA

and GLT in the telescope array has greatly enhanced its resolution and sensitivity, making it possible to produce an image of the ring-like structure of the M87 black hole at a wavelength of 3.5 mm.

In the future, scientists intend to take color images of the black hole or even record a video to further observe and research on it.