

# TCM Highlighted in Fighting Against Infectious Diseases

By LI Linxu

Traditional Chinese Medicine (TCM) will play a bigger role in infectious disease prevention, treatment and public health response, according to a recently unveiled government plan.

Its role in the fight against COVID-19 has been widely acknowledged by experts at home and abroad.

In the process of treating COVID-19, there are promising data to suggest that TCM is beneficial in reducing the risk of progression from mild-to-moderate cases to severe COVID-19, according to a WHO expert meeting report released on its official website.

Further research is warranted on TCM for the treatment of COVID-19 since the progress to date lays a strong foundation for international collaboration and cooperation that will potentially benefit human health globally through more effective and appropriate application of TCM, said the report.

The newly unveiled government plan also hails the important contribution made by TCM to COVID-19 control and treatment, calling for further elevation of its capabilities in the prevention, control and treatment of emerging infectious diseases.



A pharmacist is examining traditional Chinese medicine decoction in Tianjin. (PHOTO: XINHUA)

By 2025, the capacity of health services provided by TCM will be significantly enhanced, while the policy and system for the high-quality development of TCM will be further improved, according to the plan.

It puts forward a series of goals to be reached by 2025, such as building a sound TCM service system, uplifting the quality and quantity of TCM talent, ac-

celerating the high-quality development of TCM industry, boosting its innovation capabilities, and elevating the level of opening-up and international cooperation.

The number of TCM hospitals is expected to increase from 5,482 in 2020 to 6,300 by the end of 2025, and the number of TCM general practitioners per 10,000 people is expected to rise

from 0.66 in 2020 to 0.79 by the end of 2025.

To achieve these goals, the plan laid out a range of major tasks and concrete measures, including further supporting the development of TCM hospitals at all levels, promoting the synergetic development of Chinese and Western medicine, and developing a high-level system for inheritance, protection and innovation in TCM.

It also emphasizes combining TCM and modern science, pledging to strengthen the financial and policy support to the research and development (R&D) of TCM.

A batch of research programs on the major, refractory, and rare diseases as well as emerging infectious diseases will be implemented, said the plan.

With regard to infectious diseases, the plan proposes that the expertise of major TCM hospitals will be enlisted to build national TCM centers for epidemic prevention and treatment in all provincial-level regions.

Meanwhile, the plan also calls for further strengthening the international cooperation in the R&D of TCM and promoting the role of TCM in the prevention and control of major infectious diseases.

## Policy Watch

# Maintaining a Good Academic Ethos

By CHEN Chunyou

For researchers, the academic ethos includes the way and attitude they approach their research, the sense of responsibility and value for the cause of science and technology, and the academic environment at large, such as research integrity, fair evaluation, incentives, and scientific spirit.

A good academic ethos is the lifeline of research and concerns the future of a nation's sci-tech career. China has always paid great attention to building a good research style.

In the revised *Law on Progress of Science and Technology*, the construction of a good academic ethos is highlighted in article 98, marking the fact that the country's sci-tech governance has achieved new heights, said Zhang Wenxia, researcher at the Chinese Academy of Science and Technology for Development.

**The requirement of the times**  
China has entered a new stage of development and faces new challenges. Having accomplished the first centenary goal of building a moderately prosperous society in all respects, China is embarking on a new journey toward the second centenary goal of building a modern socialist country.

The supporting and leading role of science and technology should be enhanced under this circumstance, said Zhang. Therefore, strengthening the construction of research style is an inevitable requirement for China to achieve high-quality development.

The researchers are expected to make more breakthroughs in basic research, original innovation and disruptive technologies, said Zhang, noting that only in a healthy environment will more research achievements be produced.

**Remarkable results achieved**  
The academic ethos continues to be improved in China, and its governance has become systematic. This has been made clear from the national level, such as the obligations of the research organizations in managing research activities,

the definition of research dishonesty, the subject to make investigations, the investigating procedures, the time span, and the punitive measures.

Zhang pointed out that the construction of academic ethos has become a regular practice in academic organizations since 2017. The universities and research institutes have realized that it is their responsibility to supervise the research activities, such as checking the re-contributed and republished theses, and making investigations if necessary, said Zhang, adding that they also set up academic committees, introduce regulations, organize training and hold lectures to strengthen the awareness of researchers.

**Make valuable and responsible research**

Article 67 of the revised law also says the researchers should promote the spirit of scientists, such as patriotism, innovation, truth-seeking, dedication, and collaboration, adhere to the spirit of craftsmanship, and be honest and trustworthy in research activities.

Zhang said this underscored the researchers' social responsibility. They are expected to have a practical attitude, and conduct high-quality research that has value and benefits society, instead of conducting the research solely for papers, she added.

In order to achieve further reform results, the country should continue to say no to the rigid talent evaluation system that overemphasizes the number of published papers, professional titles, academic backgrounds and awards, said Zhang, adding that what is more important now is to set new standards and truly practice the value advocated by the country through the evaluation mechanism.

To cultivate a good academic ethos needs interdepartmental cooperation, said Zhang, adding that apart from the Ministry of Science and Technology, other concerned ministries should explore ways to put the country's research value orientation into professional title evaluation and incentive systems.

# Tech Innovation Drives China's Low Carbon Development

By CHEN Chunyou

To tackle the challenges of climate change, more than 130 countries and regions have put forward the goal of carbon peaking and carbon neutrality. Sci-tech innovation is the key component to achieving this goal.

In China, a plan and a technology roadmap on supporting carbon peaking and carbon neutrality are being formulated. The Ministry of Science and Technology is organizing universities, enterprises and research institutes to propose major R&D projects and explore breakthroughs together.

Many regions, such as Beijing, Shanghai and Jiangsu, have proposed to take the lead in achieving carbon peaking in advance in their 14th Five-Year Plans. Among them, Anhui, Chongqing, Hubei and Hebei are committed to stepping up efforts to tackle green and low-carbon technologies.

For example, Anhui province has listed the competitive low-carbon industries on the preferential development agenda, and set up special projects, themed on ecology, carbon peaking and carbon neutrality, while also establishing the Anhui Energy Internet Joint Fund in provincial sci-tech program.

Hubei province has approved the establishment of the Carbon-Neutral Technology Innovation Research Institute, aiming to build the province into a national leader in demonstrating green and low-carbon technological innovation.

On April 15, the National Assessment Report on Development of Carbon Capture Utilization and Storage (CCUS) Technology in China was released. It is estimated that China's CO<sub>2</sub> capture capacity will reach up to 600 million tons per year by 2030.

This report predicts the development trend and the emission reduction

potential of the CCUS technology, which can provide the scientific basis for formulating policies on industrial emission reduction at national and local levels.

According to the report, the CCUS involves many fields, such as electricity, chemical engineering, cement and steel, ensuring China's energy security on the premise of meeting the demand for emission reduction.

Yuan Shiyi, academican of Chinese Academy of Engineering, suggested that a mid- and long-term development plan and annual plan should be formulated as early as possible to advance the CCUS technology development.

# Tough IPR Protection to Energize Seed Industry

By ZHONG Jianli

China will introduce stronger intellectual property rights (IPRs) protection for the seed industry to boost innovation on new plant varieties, and strive to form a complete system for protecting the IPRs of seeds by 2023, according to a guideline issued recently by the Ministry of Agriculture and Rural Affairs and eight other departments.

Dubbed as "chips" of agriculture, seeds are the foundation of modern agricultural development and national food security. Though the country has had

years of bumper harvests, China depends to some extent on foreign seed varieties.

To realize self-reliance and self-strengthening in the seeds industry, the country has made efforts to revise its related law and policy.

In December last year, the 32nd Session of the Standing Committee of the 13th National People's Congress passed a decision to revise the Seed Law of China. The revision became effective on March 1, 2022.

The newly released guideline is to further implement requirements of the

revised Seed Law, by expanding the scope of IPR protection for new plant varieties and establishing the essential derivation variety system.

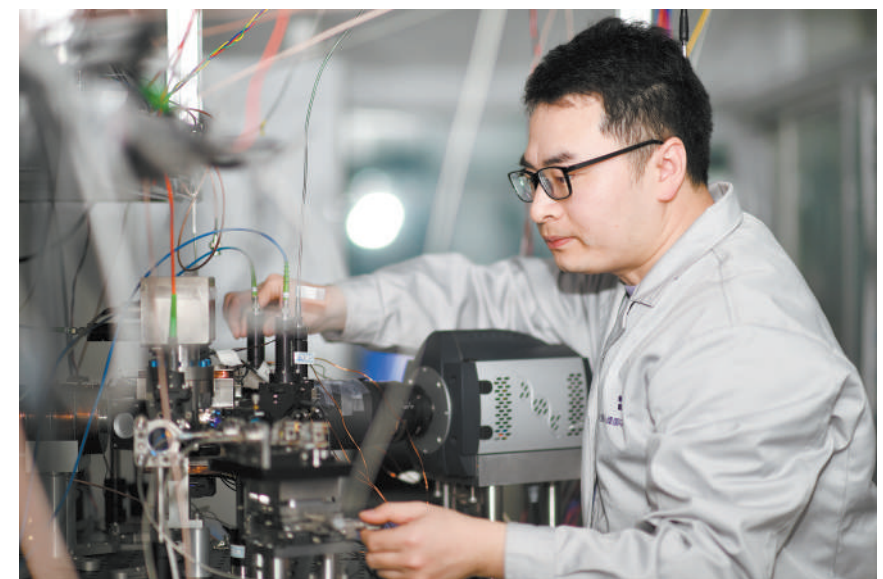
China has seen significant progress in R&D of germplasm in recent years, as Chinese scientists have completed sequencing or resequencing a variety of key agricultural crops. Yet, the country's seed industry is still facing a lack of originality in cutting-edge and core technologies, and basic research.

Therefore, the guideline also proposes to encourage original innovation and intensify investigation on major IPR

infringement cases.

In order to explore the establishment of the "seeds identity" management system, the guideline calls for speeding up the R&D of molecular detection technology, the formulation of relevant standards, and the establishment of the DNA fingerprint database.

With wider application of information technology including big data, the "one variety, one name, one standard sample, and one fingerprint" whole-process traceability management system should be established, according to the guideline.



A researcher conducts experiments in National Time Service Center of Chinese Academy of Sciences. (PHOTO: XINHUA)

## Bringing Life to the Sea of Sand

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There is an impressive story behind every splash of greenery added to the land of China.

"I do only one thing in my life — curb the desertification," said Shi Guanyin, a farmer and veteran CPC member from Dingbian county, located on the edges of the Maowusu Desert, Yulin city, in northwest China's Shaanxi Province. Shi received the July 1 Medal, the highest honor in the CPC for his contribution to desertification control over the past decades.

Yulin is home to 99 percent of the desertification area in Shaanxi Province. Shi led the villagers to plant trees on 14 thousand mu (1 mu is about 666.7

square meters) of land from 1968, creating the first oasis for the village in three years.

In 1984, he started his own company to control desertification. Over the years, local people led by Shi have braved innumerable difficulties, planted and kept alive more than 53 million trees on 250,000 mu of barren land, and in the process built up a "Green Great Wall" on the edge of the Maowusu Desert.

Wang Youde from Lingwu county, Northwest China's Ningxia Hui Autonomous Region, is another example. He led his colleagues to build 60,000 mu of forest in the past two decades, effectively preventing the expansion of the Maowusu Desert.

Needless to say, Saihanba National Forest Park, once a barren plateau in China's north, was turned into a lush oasis by the efforts of three generations planting thousands of hectares of trees.

**Invisible treasures**  
When you do land restoration, you address poverty, said Ibrahim Thiaw, the Executive Secretary of the UN Convention to Combat Desertification (UNCCD).

The restoration of ecosystems can promote the full use of rich resources contained in the desert, creating sustainable job opportunities that encourage local people to take better care of the land in return.

One such example is the Kubuqi Desert, located in north China's Inner

Mongolia Autonomous Region, which is rich in solar resources. Thus, the local government managed to coordinate desertification efforts with the development of photovoltaic power projects.

At an industrial base in the desert, photovoltaic panels shine in the sunlight, while potatoes and other crops grow under the shade of the panels.

Fifty-three percent of the desert is now covered by vegetation, with the level of precipitation witnessing a sharp rise, and the number of sandy days dropping significantly. The improvement of the ecological environment there has also boosted local tourism and in turn increased local people's incomes and improved livelihoods.

## Turn to Science and Technology for More Growth Drivers

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Xi called for making Asia an anchor for world peace, a powerhouse for global growth and a new pacesetter for international cooperation.

Win-win cooperation is a sure path to Asian development. The entry into force of the Regional Comprehensive Economic Partnership (RCEP) and the opening to traffic of the China-Laos railway have effectively boosted institutional and physical connectivity in our region. We should seize these opportunities to foster a more open Asia-wide market and make new strides in mutually beneficial cooperation, Xi said.

The Boao Forum for Asia (BFA) was held from April 20 to 22 at Boao, Hainan province of China, with the theme of "The World in COVID-19 & Beyond: Working Together for Global Development and Shared Future."

This year marks the BFA's 20th anniversary. Delegates from governments, business, academia and media gathered and discussed the post-pandemic development agenda for Asia and the world, focusing on green development, innovative development, inclusive development and collaborative development, so as to promote international solidarity and cooperation.

Source: XINHUA