Beijing certifies 14 industry experts for honors

The Beijing Municipal Human Resources and Social Security Bureau has certified 14 experts from various academic and professional fields as “Beijing Scholars.” They are the third group of experts to be honored.

The 14 scholars, including Ge Gennian at the Capital Normal University and Ji Jiafu at Beijing Cancer Hospital, are the representatives in the capital who stand out among their fellows in fields such as medicine, information technology, agriculture, law and economics.

The Beijing Scholar Program, launched in late 2012 by the Beijing municipal government, is the city’s top talent training program aimed at grooming a number of world-class scientists, engineers and masters to stand at the forefront of their fields.

Every two years, the program selects no more than 15 scholars from the sectors of natural sciences, engineering, technology, philosophy, and social sciences. This is a vital move in support of the capital city’s construction as a center of technological innovation with global influences.

In recent years, the bureau has built a support and training platform across different sectors and institutions for Beijing’s scholars by developing personalized training plans and employing academicians from the Chinese Academy of Sciences and Chinese Academy of Engineering as tutors.

Beijing has made fruitful results over the recent five years since the implementation of the program. There have been four scholars selected to become academicians of the Chinese Academy of Sciences and the Chinese Academy of Engineering, accounting for a quarter of the current number of the academicians from municipal units.

The last five years have also seen the largest number of talent in the city becoming academicians of the Chinese Academy of Sciences and the Chinese Academy of Engineering. Nine scholars have won the three national science and technology awards, many scholars have made breakthroughs in scientific research, and many have served in major international and domestic academic institutions.

This year, the city has made a number of amendments to the pilot scheme of the program by promoting incentives and implementing policies more flexibly. For example, the Beijing Scholars will have the cap on their total salaries removed, and may apply to extend their retirement age.

HK, Beijing, Shanghai among most ‘magnetic’ cities in the world

China’s Hong Kong took the ninth spot in the 2017 Global Power City Index (GPCI) report released on Oct 12, followed by Beijing at 13th and Shanghai at 15th rank, according to Business Wire.

The annual GPCI report evaluates and ranks 44 major cities according to their “magnetism,” or their overall power to attract creative individuals and enterprises from around the world. Cities are rated on the basis of six categories: Economy, R&D, cultural interaction, livability, environment, and accessibility.

Beijing and Shanghai continued to perform strongly in “economy” criteria, achieving respective rankings of third and fifth as a result of their population size and GDP levels, and in terms of the number of the world’s top 500 companies with operations there.

Shanghai ranked third in the category of “accessibility”, due to the high number of passengers arriving or departing on domestic and international flights serving the city.

Although Hong Kong fell from seventh to ninth in the overall ranking this year, the city continued to score highly in the category of “accessibility”.

London and New York kept their first and second place on the GPCI for the fifth year in a row. Tokyo leapfrogged Paris to move into the top three for the first time, having been fourth for the past eight years.

Two more Asian cities, Singapore and Seoul, were ranked fifth and sixth, while two European capitals – Amsterdam and Berlin – notched the seventh and eighth.

Sydney, the most populous city in Oceania, achieved a top 10 overall ranking for the first time in seven years with a strong boost in its “Livability” ratings.

First published in 2008, the annual GPCI report is published by the Mori Memorial Foundation’s Institute for Urban Strategies, a research institute established by Mori Building, a leading urban developer in Tokyo.

Shingo Tsuji, director of the Mori Memorial Foundation and CEO of Mori Building, said that “Global players today are seeking cities not just with a strong business environment, but those additionally offering improved lifestyles: high quality residences, diverse cultural and retail facilities, a stress-free transportation network and a rich natural environment. For global cities to thrive, they need to maximize their strengths while overcoming weaknesses; this will help them to bolster their overall magnetic power and attract talent and investment from around the world.”

Top 15 cities in comprehensive ranking

1. London
2. New York
3. Tokyo
4. Paris
5. Singapore
6. Seoul
7. Amsterdam
8. Berlin
9. Hong Kong
10. Sydney
11. Los Angeles
12. Frankfurt
13. Beijing
14. Vienna
15. Shanghai

Latest thing in heart disease treatment: 3-D printing

A hospital in Guangzhou opened China’s first 3-D printing laboratory for cardiovascular medicine on Wednesday, with the facility expected to provide help in diagnosis, surgery preparation and realtime surgical guidance.

The lab at Guangdong General Hospital, a joint project with a company in Zhuhai, Guangdong province, was established to promote the clinical applications to further development the technology.

About 6.7 million structural heart disease patients in China need surgery, with the disease featuring a wide range of individual differences, complex treatment plans and difficult surgeries, according to Zhuang Jian, the hospital’s president and an expert in cardiovascular medicine.

The hospital's affiliated Guangdong Cardiovascular Institute has made 3-D printed models for 28 patients with congenital heart disease.

In treating a 2-year-old child in September, for example, the 3-D printed model helped doctors identify the exact cause of the disease and helped reduce the time to find four tiny lung-related airway structures from the usual two to three hours to 30 minutes.

The printed heart models are based on imaging examination results, with the whole heart and specific areas available.

The models also aid communication with patients' families, showing them the situation and the surgical plan.

Models printed with hard materials are used for teaching; those with soft materials assist in the treatment of patients.

As a short-term goal, the lab hopes to use the models to assist in diagnosis, surgical guidance and clinical treatments involving blood flow.

In the medium term, it hopes to be able to print tailor-made items for transplantation. In the long run, it hopes to produce artificial hearts using cell cultures as the 3-D material.

The hospital also plans to build a bank of 3-D models of various heart disease cases, which can help with teaching, Zhuang said.

Zheng Zhe, assistant president of the Chinese Academy of Medical Sciences' Fuwai Hospital, and an expert in cardiovascular diseases, said the present cardiovascular models printed with 3-D technology are mostly used for teaching.

"3-D models make teaching easier than with pictures alone," he said. "But most models are not detailed enough for clinical use."

For the present, experienced doctors can give good diagnoses of cardiovascular diseases with 3-D images displayed on a computer, he said.

Whether 3-D models will become popular will be largely decided by the materials used in the printing, he said, adding that models made of cells will be much more useful.

Robot gives guidance in Beijing court

The Chinese capital's first artificial intelligence robot for legal services was put into operation in a Beijing court on Thursday.

The robot, named Xiaofa, stands 1.46 meters tall and provides legal advice

and guidance in a child’s voice.

“Xiaofa explains complicated legal terms in everyday language to help the public better understand legal definitions,” said Du Xiangyang, founder and CEO of AEGIS Data, which designed Xiaofa. “We used a child’s voice to ease the tense emotions of litigants who come here for help.”

A staff member interacts with Xiaofa, a robot that provides simple legal advice and guidance for litigants, at Beijing No 1 Intermediate People’s Court on Thursday. [Photo/China Daily]

The robot can move its head and wave its hands as instructions show up on screen, and it can guide people to the exact service window for litigation services.

The appearance of Xiaofa was a big move for the Beijing court, as the capital works to build a “smart” court system. Over 40,000 litigation questions and 30,000 legal issues can be answered by the robot, according to the court.

“Interaction between humans and machines has improved immensely,” said Ma Laike, deputy head of Beijing No 1 Intermediate People’s Court. “It will decrease the cost of litigation, save trial resources and improve the efficiency of justice.”

Before the robot was introduced into the Beijing court system, it was tested by legal professionals.

In October 2016, China’s first AI legal robot, Faxiaotao, was unveiled in Hangzhou, Zhejiang province, attracting visitors from home and abroad.

Faxiaotao can help people analyze the best way to solve a dispute, and also assist them in selecting which attorneys are suitable to accept the case, according to the robot's designer, Itslaw, a company that combines internet technology with law.

For example, if a company's corporate client believes its advertisements or advertising slogans have been illegally copied by a rival company and would like to hire an attorney who is a specialist, Faxiaotao will first recognize what kind of case it is and then analyze its database for suitable lawyers who have dealt with similar disputes.

More than 300,000 attorneys across the country were listed in the company's database last year. When a query is made it selects the best three options, the company said.

The Supreme People's Court has ordered Chinese courts at all levels to build technology-friendly systems for lawsuits and explore the use of big data and AI to help judges and litigants search documents and resolve cases.

An internal intelligent system covers 3,520 courts across the country, giving the courts access to a great deal of information online.

19th CPC National Congress to feature more grassroots delegates

The Communist Party of China (CPC) is set to hold its 19th National Congress this month. The five-yearly political event is expected to pave the way for China's future development.

During the year, 2,287 delegates have been selected to attend this year's congress to be held in Beijing starting Oct. 18.

Attendees will include high-ranking government officials, Party leaders, and military officers as well as grassroots Party members from "frontline production and manufacturing" such as workers, farmers, technicians, nurses and teachers.

According to a circular issued by the CPC Central Committee in November 2016, frontline workers should account for no less than one-third of the delegates.

A total of 771 grassroots delegates have been selected from various social sectors, accounting for 33.7 percent of the total, up by 3.2 percentage points from five years ago.

The voices of grassroots delegates, especially those who have made achievements in reforms, scientific innovation and poverty alleviation, are

expected to gather wisdom and increase the strength of China’s overall reform across all social sectors.

While these delegates all share their belief in Marxism and contribution to the people, each has a story to tell.

Internet celebrity

For some of China’s college students, Party theory classes may not be a fun part of their campus life. But this is not the case for students at Nanjing University of Aeronautics and Astronautics.

Xu Chuan, a 35-year-old associate professor, has made the university’s Party classes popular by blending in vivid anecdotes and a touch of humor.

“Many of our graduates will go on to work in China’s national defense. Therefore Party classes are very important for them to nurture political awareness to better serve our country,” Xu said.

“I understand what interests young students. Instead of throwing rigid theories at them, I use my own experience to give the classes a personal spin,” he added.

To attract a wider audience, Xu regularly publishes articles online promoting the CPC ideals. He also uses his WeChat social media account to give advice to college students and young adults on topics such as education, careers and relationships.

In 2016, Xu’s article “Why should I join the CPC?” went viral garnering more than one million views after it was forwarded by the official WeChat accounts of CPC authorities.

“When students are asked about why they joined the Party, they tend to come up with very similar answers,” the article states. “They always say their grandfathers were the source of their Communist faith. It seems to me they all have the same grandfather.”

“If a person is not ready to sacrifice for the people and endure hardships, he or she is not qualified to be a CPC member,” the article goes on.

Xu’s WeChat account now has nearly 200,000 followers.

In June this year, he was selected to attend the 19th CPC National Congress.

“With a social media following of nearly 200,000 young people, I will try my best to pay attention to the needs of Chinese youth,” said Xu. “I will also inform them of information released at the congress to help them with their studies or career.”

Denim innovator

Some of the delegates deal with things that are more concrete.

Deng Jianjun is the technical director of Black Peony (Group) Co. Ltd., a Chinese manufacturer of denim, yarn-dyed fabrics and garments.

The process of making denim involves dyeing yarn with a dyeing and sizing machine.

In the 1980s, all machines had to be paused during the dyeing process for components to be replaced due to a technical defect.

Every pause wasted more than 300 meters of yarn, which was a common problem for global denim industry.

Determined to solve the problem, Deng spent more than a year visiting Chinese and foreign experts, then inventing new designs to improve the machines.

Deng's efforts paid off. In the early 1990s he made a series of improvements that allowed his company's dyeing and sizing machines to be able to operate without interruption, which has saved the company more than30 million yuan.

Since 1994, Deng's team has made hundreds of updates to the company's machinery to increase production capacity saving more than 80 million yuan.

As a Party delegate representing workers, Deng has attended the last two congresses. He sees it as his duty to represent the benefits of workers.

"We are currently trying to let machines do more of the work," Deng said, adding that the aim is to reduce the burden on workers and improve the working environment.

Wheat scientist

One out of every eight mantou, or steamed buns, in China is made from wheat developed by Ru Zhengang.

Ru, a professor at Henan Institute of Science and Technology, is China's leading agricultural scientist renowned for his expertise in breeding new species of wheat.

Back in the 1980s, when Ru had just graduated from university, China's wheat crops were mostly species imported from Italy.

Ru took it upon himself to make China independent in terms of wheat. After years of work, he developed the "Bainong-62" and "Aikang-58" species.

The Aikang-58 species has helped increase China's wheat output by 12.1 billion kilograms.

After being selected as a delegate to this year's CPC National Congress, Ru feels the weight of his new responsibility.

"Apart from my own research, I will perform my duty as a delegate to work with more people to build our nation," Ru said.