> **Medicine allows me to express my deep interest in science and in solving problems. And now it is helping other people."**
>
> **Gregg Stone,** professor of medicine at Columbia University College of Physicians and Surgeons

STRAIGHT FROM THE HEART

Gregg Stone, a doctor from the United States, is eager to explore and promote China's medical advances, **Liu Xiangrui** reports.

Gregg Stone visits the Nanjing No 1 Hospital in December. He says he's surprised by the advances of China's healthcare industry over a short period of time. PHOTOS PROVIDED TO CHINA DAILY

Gregg Stone, a cardiologist from the United States, has been working along with his Chinese peers to help people with heart diseases in China.

Stone, 60, is a professor of medicine at Columbia University College of Physicians and Surgeons, and serves as the director of cardiovascular research and education at the Center for Interventional Vascular Therapy at New York-Presbyterian Hospital.

As a specialist in interventional cardiology that deals with catheters, he has worked on many clinical trials.

His association with China began nearly 20 years ago, when he met Gao Runlin, an expert on interventional cardiology from the government-run Fuwai Hospital in Beijing.

At the time, this field was new in the country — with few procedures conducted here. Stone and Gao worked together to bring new medical techniques to China and train physicians.

"We talked about the need for regional training centers, large educational programs and government-invested laboratories to spread the techniques," says Stone.

After Gao launched an annual event called China Interventional Therapeutics in 2002, Stone worked with him to expand its influence, including establishing a partnership with Transcatheter Cardiovascular Therapeutics, a global conference sponsored by New York-based Cardiovascular Research Foundation, of which Stone is the vice-chairman.

The Chinese event, which includes lectures and live broadcasts of surgeries related to heart diseases, has become a gathering that is attended by 8,000 medical professionals every year.

"It appeals to both young doctors and the very experienced ones," Stone says.

Over the years, such collaborations have expanded to hospitals in Beijing, Nanjing, Shenzhen and other cities. Stone is also involved in promoting China's medical progress in the world.

After Chinese doctor Chen Shaoliang and his team from Nanjing No 1 Hospital developed a technique called the "DK Crush", which is said to significantly enhance the quality of treatment for a disease in the coronary artery, Stone actively helped them to promote the method internationally.

The technique was displayed at two important international medical conferences, including the 2011 Transcatheter Cardiovascular Therapeutics, which helped it gain wider recognition.

Stone is also helping Chen do international collaborative research to prove that a separate method developed by Chen to treat pulmonary hypertension is effective, before it can be adopted worldwide.

Chinese doctor Chen Shaoliang from Nanjing No 1 Hospital meets Stone and his wife in Nanjing.

According to Chen, Stone has helped the Nanjing hospital in Jiangsu province, develop its cardiovascular medicine department further.

Besides coming to China for research, meetings and to train doctors almost every year — sometimes at his own cost — Stone has also accepted several cardiologists from the hospital for training at his hospital in the US.

"He is very patient while answering questions from Chinese doctors," says Chen. "As a foreign expert, he has served selflessly ... we value his work very much."

In 2015, the Nanjing No 1 Hospital and New York-Presbyterian Hospital jointly established a research institute on heart diseases in Nanjing. The ground work included a series of collaborative plans.

Stone says he is surprised by the advances made in medicine by China over a short period of time.

"What's been accomplished in the past 15 years is that the research coming out of China is now being applied to the whole world," he says.

"Initially it was us trying to help China, but now China is working to help us and the rest of the world," he adds.

Stone received the Friendship Award in 2016.

The award is the highest honor given by the Chinese government to foreigners who have made significant contribution to the country's social and economic development.

"I am very proud if I have played a small role in contributing to the health of people in China. I hope that opportunity will continue, because there is more work to be done."

He has also been invited as a high-level expert to give his own suggestions to the Chinese government for the country's medical development.

While China has established many hospitals and laboratories with good facilities, he says more doctors need to be trained to make the sector better able to deliver medical care.

"In a country with such a large population, medical care can be very hard to be delivered consistently. But I think we are on our way to doing it," he says, adding that in the next decade, hospitals in the big cities will need to spread the lessons they have learned to smaller places for the entire country to benefit.

Stone got interested in medicine as a teenager, after he volunteered to transport patients in wheelchairs at a hospital.

"Medicine allows me to express my deep interest in science and in solving problems. And now it is helping other people," he says.

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Sweden honors Chinese scientist

STOCKHOLM — Chinese scientist Yao Tandong received the 2017 Vega Medal in Stockholm on Wednesday, for his contribution to research on glaciers and the environment on the Qinghai-Tibet Plateau.

Swedish King Carl XVI Gustaf gave the award to Yao at the Royal Palace of Stockholm and congratulated him personally for his outstanding achievements.

Sten Hagberg, chairman of the Swedish Society for Anthropology and Geography, says Yao's research on the "Third Pole", monsoon and glaciers are crucial to the understanding of the process of climate change, and affects more than 2 billion people, which is why it is a global topic.

Yao Tandong, a renowned expert on glacial studies. PROVIDED TO CHINA DAILY

Earlier, SSAG announced Yao as this year's Vega Medal laureate, for his outstanding contribution to glacier research and to the society at large. His research focuses on glaciers and environment on the Qinghai-Tibet Plateau, especially the cryosphere.

Yao is internationally acknowledged as one of the most accomplished scientists in the field of cryospheric study.

He has led several research programs — often together with American, French, German and Japanese scientists — in the last 20 years.

One of his later work shows global warming as causing the decline of glaciers on the Qinghai-Tibet Plateau, interacting with Indian monsoon winds and westerly winds. The research program Third Pole Environment, led by Yao, has become internationally significant.

XINHUA

Doctor brings AIDS vaccine project from US to Guizhou

By LIU XIANGRUI in Beijing and **YANG JUN** in Guiyang

For Zhou Xiangyang, AIDS research is full of challenges.

After graduating from Chongqing Medical University in 1982, he worked as a doctor in South China in the late 1980s and then went to study in France and the United States.

He joined the Wistar Institute, a Philadelphia-based biomedical research center, in 2007 and has served as its director of viral medicine since.

The 61-year-old has spent years researching HIV/AIDS and oncolytic vaccines, which have brought him international recognition.

According to the World Health Organization, there were about 36.7 million people living with HIV at the end of 2015, and about 46 percent of them were receiving antiretroviral treatment.

Zhou estimates that the number of people with HIV/AIDS in China has quadrupled in the past decade, mainly due to unsafe sex and drug abuse.

He remembers how a young Chinese couple he once treated shocked him and prompted him to strive harder to find a solution to the AIDS problem.

The couple had made their own wealth through hard work but were infected by HIV from taking drugs after they got rich, according to Zhou.

"As a doctor I felt the responsibility to reduce such patients' pain," he says.

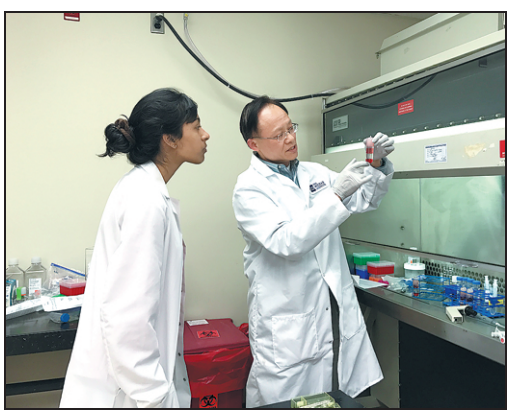
He then gradually became involved in research on relevant vaccines.

His team embedded the enveloping protein of HIV into the carrier of chimpanzee adenovirus.

The method enhanced the immunogenicity of the protein.

Zhou says the AIDS prevention vaccine's development has had encouraging results during testing on animals and it has moved to the first phase of clinical trials in the US.

> **As a doctor I felt the responsibility to reduce such patients' pain."**
>
> **Zhou Xiangyang,** director of viral medicine, Wistar Institute



Zhou Xiangyang instructs a student in the Wistar Institute in Philadelphia, the United States. BIAN ANG / PROVIDED TO CHINA DAILY

Lo Xiaoping from the QL Pharmaceutical Co Ltd, a company in Guizhou, invited Zhou to bring the vaccine research project to Southwest China's Guizhou province.

Earlier this year, the Chinese company signed a joint development plan with the Wistar Institute in the US.

Lo says Zhou has brought the "seeds" of the vaccine to his company, and the two sides will work together to carry it further.

Much work needs to be done in the near future, says Zhou.

For example, the virus strains from HIV carriers in Asia are different from those in the West, and lots of tests are needed to understand this.

While dealing with HIV/AIDS has been a challenge for doctors in any country, Zhou tells his students to maintain their patience.

As the doctor recalls, his experience of spending a few tough years in rural China when he was very young helped his persistence grow. The quality benefitted him in his research years later.

When he was studying for his PhD in France in the 1990s, he focused on molecular biological research. Back then, few people knew anything about the subject, Zhou says.

He needed to clone genes with methods that required using the enzyme endonuclease to cut the DNA sequence precisely.

But relevant research conditions in France were very poor then. It was hard to find and afford the expensive endonuclease.

He had to be very economical in using the enzyme. There were no other alternatives, either.

To reduce the use of incision enzyme, he had to improve the purity of DNA plasmid he collected from a bacteria and repeat the selection process several times.

As Zhou observes, the gap between China and Western countries in medical research has been narrowing. He believes Guizhou's strategies, including boosting the general health industry have been very positive factors for introducing talent.

"Guizhou has many beneficial factors for our project. It has a nice environment and huge government investment in terms of both capital and talent, which is attractive. We can enhance our competitiveness with more talent," Zhou says of the reason behind choosing Guizhou.

Lo says his company plans to soon recruit PhD-holders who will be sent for training at the Wistar Institute before they return to focus on AIDS-prevention research under Zhou's guidance.

Li Jiaxu contributed to this story.

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