

MEDICINE

TCM cancer treatment enters final trials in US

By SHAN JUAN
shanju@chinadaily.com.cn

A traditional Chinese medicine preparation used to treat cancer and boost patients' immunity has been given the go-ahead for a third phase of clinical trials in the US, the last major hurdle for those wishing to launch new drugs in the US market.

The drug, known as Kanglaite Injection, contains anti-cancer compounds extracted from the seed of coix, a grass-like relative of maize, and has been approved and used as a cancer treatment in China since 1995.

It has been used by more than 200,000 patients and is among the best-selling cancer treatments in the country.

Its inventor, Li Dapeng, has been seeking registration for the drug in the United States. The US Food and Drug Administration gave the go-ahead for clinical trials in 2001. Kanglaite is the first TCM injection treat-

ment to undergo the FDA approval process.

"After promising results from the Phase 2 clinical trials, they are permitting us to move on to the third and final phase, where a larger number of volunteer cancer patients will be involved," Li said. "If everything goes smoothly, KLT will hit the US market in three years."

In the second phase of trials, the natural herbal remedy exceeded the success rate of Western cancer treatments, prolonging patients' lives by 1.9 months with fewer side effects.

Li described the US approval procedure as long and costly, but said it would be worth the effort if it helps to bring TCM to patients worldwide. It has taken 16 years and the expenditure of millions of yuan to reach the phase three clinical trials stage.

Li is an academic at the Chinese Academy of Engineering and a researcher at Zhejiang Chinese Medical University.

Yu Wenming, deputy direct-

or of the State Administration of TCM, said the government will encourage the spread of more TCM products and services abroad to improve people's health worldwide.

TCM remedies that have already been recognized in the West include the asthma treatment Mahuang, also known as Ephedra sinica, and Qinghao, or Artemisia annua, used to treat malaria.

It is difficult to get approval in the West for TCM treatments because of differences in standards, according to TCM expert Zhang Boli of the academy.

"TCM has to learn their rules to become globalized, as people overseas also need this time-honored form of medicine," he said.

"TCM has an efficacy proven by time and experience, while the effectiveness of Western medicine is largely lab and evidence based."

Zhang called for more government support for Chinese TCM producers.



Home wet home

A student salvages some of his possessions in his flooded room at Nanjing University of Science and Technology in Jiangsu province on Sunday after torrential rains lashed the city. YANG BO / FOR CHINA DAILY

TRANSPORTATION

China joins global elite in fast rail

By ZHAO LEI
zhaolei@chinadaily.com.cn

China has become a world leader in high-speed railway technology with its development of a cutting-edge permanent magnet synchronous traction system that will take bullet trains to an ultrafast 500 kilometers per hour.

The advanced 690-kilowatt traction system was developed by CRRC Corp, the country's

train-making behemoth, at its Zhuzhou Institute in Hunan province. It will soon enter mass production, said Ding Rongjun, a member of the Chinese Academy of Engineering who heads the institute.

"Now we have our own permanent magnet synchronous traction system with full intellectual property rights, marking a new chapter in China's high-speed railways," he said, adding that only a handful of

countries are capable of manufacturing the sophisticated apparatus, including Germany and Japan.

Feng Jianghua, deputy director of the institute, said the adoption of the technology will reshape the high-speed railway industry because traction equipment is the most important part of a bullet train.

Currently, most high-speed trains in service in the world are propelled by alternating

current asynchronous motors, a traction system first developed in the 1970s.

The Zhuzhou Institute began research and development on permanent magnet synchronous traction technology in 2003 after it noticed that major international train makers, such as Siemens and Bombardier, had launched projects to acquire the equipment, Feng told China Economic Weekly.

The magazine quoted Xu Junfeng, a senior engineer at the institute, as saying that engineers overcame a large number of technical difficulties. China had never looked at the high-tech equipment before the project.

After eight years, engineers completed development in 2011 and installed the advanced traction system on trains running on Subway Line 2 in Shenyang, Liaoning province, as a trial.

The test has proved successful, Xu said.

In December 2013, the institute brought the system to bul-

500 km per hour

Speed of bullet trains operating on CRRC Corp's advanced 690-kilowatt traction system

let trains, expecting speeds of 500 km/h. Trials were undertaken on several trains in October.

Jia Limin of Beijing Jiaotong University, who heads China's high-speed railway innovation program, said that if everything goes well, trains equipped with the new trac-

tion system will become fully operational by 2018.

Compared with an alternating current asynchronous motor, the new system boasts more power, simpler configuration and lower electrical consumption, Jia said.

"The new system has fewer parts than the current traction apparatus, so it is more reliable and efficient," he said.

Sheng Guangzu, general manager of China Railway Corp, has pledged to speed up the development of key technologies in high-speed rail and to design a new bullet train using Chinese standards.

International Education Column

If you are interested in our special education column, please contact: i.education@chinadaily.com.cn

WHY YOU BELONG AT MISSOURI STATE UNIVERSITY

- Quality academic programs with high accreditations
- More than 1,400 international students on our friendly, safe campus in Springfield, Missouri
- Established presence in China thanks to branch campus in Dalian and partnerships with other Chinese institutions
- Recent honors: Named to America's Top Colleges list by *Forbes* magazine; received Best Midwestern distinction from *The Princeton Review*
- International students have memorable experiences, from campus involvement to travel around U.S.
- Unbeatable value with scholarships and internships for international students

www.missouristate.edu

Learn about TOEFL requirements, English as a Second Language courses and more: www.international.missouristate.edu/futurestudents

Queens Master of Finance in Beijing

A partnership with Renmin University

Earn a world-class master's degree in finance, while you work.

This English-language program provides an exceptional opportunity to earn a master's degree in finance from Canada's Queen's School of Business – one of the world's premier business schools. Weekend classes allow you to complete the program while you continue to work, right here in Beijing.

Find out more at qsb.ca/mfn_beijing

CHICAGO BOOTH

The University of Chicago Booth School of Business

INQUIRY. INSIGHT. IMPACT.

THE CHICAGO APPROACH. HONG KONG ADDRESS.

The Chicago Booth Executive MBA.

CHICAGO LONDON SINGAPORE HONG KONG

CityU DBA

An Executive Doctorate Programme Offered by One of the Best Business Schools in Asia (No. 2) and in the World (No. 37) (JTD Rankings 2015)

We warmly invite you to attend the upcoming information seminar to talk about some of the key features of our DBA programme...

- Rigorous but Practical,
- Reflective but Progressive,
- Distinctive but Collective, and
- Takes a few years to complete but has Lifelong Personal and Societal Impacts

Professor Muammer Ozer
Director, DBA Programme, Professor of Management

Online Application : www.cityu.edu.hk/dba/admission

www.cityu.edu.hk/dba

Welcome to Ireland, welcome to UCD.

Top 1% of higher education institutions worldwide

Scholarships available for international students

Career opportunities and 1-year stay back visa for Ireland

www.ucd.ie/international

University College Dublin is more than a campus, it is a safe and welcoming community.

Its 133 hectares of leafy space, lakes, playing pitches, historic and modern buildings is home to Ireland's largest community of students, faculty and researchers. Located in the Embassy belt of Dublin, one of Europe's most vibrant cities, the safe modern campus has a warm welcome for every visitor.

University of South Wales

Professional courses for a professional world

We offer professionally-oriented undergraduate and postgraduate courses in a range of areas including:

- Business • Engineering • Aircraft Maintenance • Law
- Accounting • Finance • Project Management • Computing
- TESOL • Built Environment • Nursing • Education
- Art and Design

www.southwales.ac.uk/international

Education UK
Innovative. Individual. Inspirational.

*Terms and conditions apply.