

LIFE IN CHINA

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China's Combating COVID-19 Policy Effective in Many Ways

By LONG Yun & BI Weizi

His story with China began with "a personal connection between the University of Oxford and China," and he still has vivid memories of his first visit to Beijing on "an extremely cold winter day."

Professor Mark Bartlam is a prominent British scientist who specializes in biochemistry and molecular biology. He is currently a professor at Nankai University's College of Life Sciences.

According to Bartlam, the career opportunities and strong support for academic research from the Chinese government were the two major reasons that convinced him to settle in China 20 years ago.

Lessons learned from the past

Bartlam worked on the frontlines of the fight against the SARS outbreak back in 2002, being part of the joint research group in structural biology at Tsinghua University. The group successfully discovered the world's first SARS coronavirus protein structure, laying an essential foundation for the discovery of anti-SARS drugs.

Meanwhile, Bartlam has offered insight into the study and development of anti-COVID-19 drugs based on his prior experience and extensive research. He said that according to what he has read, there are highly encouraging indicators for the global development of anti-COVID-19 drugs. He is very encouraged by the fact that several Chinese medications have performed exceptionally well in clinical testing, indicating strong potential.

Although Bartlam is optimistic



Professor Mark Bartlam. (COURTESY PHOTO)

about the development progress of the drugs, he emphasized that researchers worldwide need to keep monitoring new strains variants, so as to make sure that the drugs that are available, or are being developed, remain effective.

"I was in Beijing when the SARS outbreak emerged in 2002 and 2003. So it was a privilege to be part of that group to be involved in this particular research," he said, adding that one of the most important things that humans learned from the SARS pandemic is that the scientific community should continue funding research into viruses and infectious diseases.

China's effective combating COVID-19 policy

Bartlam utilized his personal experiences to laud China's anti-COVID-19 campaign when commenting on China's Dynamic Zero - COVID Policy. "I have seen the pandemic from both China and the UK," he said, adding that as COVID-19 is

a global health crisis, policies against the pandemic must be tailored to specific countries.

"I think the policy employed by the Chinese government has proven effective in many ways," he said.

He spoke highly of China's capacity to do rapid nucleic acid testing and implement contact tracing, both of which are efficient elements to contain the pandemic. In addition, he considers that the local isolation campaign is also an efficient approach to suppressing cases in specific areas.

Communication, the most important skill for scientists

As a scientist and an educator, Bartlam strongly believes the most important skill for a scientist is communication. As a result, he organized a course for Nankai University students called "scientific writing and presentation."

According to Bartlam, the ultimate objective is to help the students write

better papers so that they can get their research to a wider audience. In a sense, academic communication skills can deliver their messages to the general public as well as the sci-tech community, stimulating more exchanges, which could provide them with better career opportunities.

He sincerely hopes the course will help the excellent talent in Nankai University to further improve their research capacity and put it into a broader context, so that they have a more comprehensive understanding of their research and its significance.

International cooperation, a vital part of science

As a scientist who has worked in various countries, Bartlam said that international cooperation is a vital part of science. He mentioned two potential approaches of collaboration. One is the academic platform for scientists to publish articles, exchange ideas and gain different perspectives.

The second approach is to successfully access resources that are unevenly distributed in our world. "Without international cooperation, science would be much more difficult. Moreover, the pace of scientific progress would be much slower," said Bartlam.

He has played an active role in the international scientific community and helped promote Nankai University as a world-leading university. He is actively involved in cooperation with his peers around the world. Additionally, he is assisting the university to establish cooperations with universities in the UK, such as University of Glasgow and University of Liverpool.



Dr. Hua Tuo. (PHOTO:VCG)

Mafeisan: First Anesthetic in the World

Traditional Eastern Wisdom

By BI Weizi

It is recorded that Mafeisan, the first anesthetic drug in the world, was created by Dr. Hua Tuo for surgical operations. As one of the three outstanding medical scholars in the late Eastern Han Dynasty (25- 220), Hua Tuo is known for many medical breakthroughs in the clinical treatment of internal, external, gynecological and pediatric dis-

eases, and is especially well-renowned for the creation of Mafeisan.

In the *Book of the Later Han Dynasty - Biography of Hua Tuo*, it is written: "If lesions were inside the body and could not be treated with acupuncture and medicine, Hua Tuo would let patients take Mafeisan. A moment later, the patients looked like drunk and unconscious. Then Hua Tuo could start to perform an operation and remove lesions."

Though any record of the original Mafeisan formula by Hua is missing, it is generally believed that it's com-

posed of cannabis, the rhizome root of Chinese wolfsbane, and flos daturae, according to *Shennong Bencaojing (also Shen-nong's Herbal Classics)*, an ancient Chinese book on agriculture and medicinal plants.

The essential aim of medical science is to alleviate human pain and suffering. In no field of medical endeavor has this aim been achieved more so than in the invention of anesthesia. So the creation of Mafeisan in ancient China is of great meaning, boosting the development of surgical operations for all of humanity.

NSFC and Gates Foundation Launch A Joint Program for Small-Scale Farmers

By Staff Reporters

On April 22, the National Natural Science Foundation of China (NSFC) and the Bill & Melinda Gates Foundation launched a joint program to support researchers in developing innovative solutions to climate-related agriculture production in low-income countries. The program focuses on two key areas: climate-smart crop breeding technologies and strategies, and index-based weather insurance. This is a commitment to fund 1 million USD by the NSFC and the Gates Foundation separately.

Climate change is already having a significant impact on agriculture. Farmers are contending with a surge in crop pests and diseases, rapidly rising temperature and extreme weather events. Ensuring these farmers have a steady supply of climate-smart crop varieties is a key component of adaptation.

The program is part of the 2022

Sustainable Development International Cooperation Program (SDIC) launched by the NSFC with a broad set of international organizations, to promote progress towards the United Nations Sustainable Development Goals (SDGs) and support exchanges and cooperation among researchers across different countries to conduct scientific research in response to global challenges.

At the Gates Foundation, agriculture research is a cornerstone of a long-term effort to fight hunger and poverty and support gender equality by investing in the small-scale farmers in sub-Saharan Africa and South Asia, vulnerable regions where most people depend on small-scale agriculture to support their families.

"We're excited to see the NSFC strengthen its commitment to supporting research targeting the adaptation needs of small-scale farmers," said Enock Chikava, Interim Director for Agri-

cultural Development at the Gates Foundation. "We understand that the world cannot end hunger and poverty without a significant global effort focused on agriculture adaptation in sub-Saharan Africa and South Asia."

China has considerable experience and expertise in developing climate-resilient agricultural products and techniques. Through this new partnership, the NSFC and the Gates Foundation will attract more Chinese scientists to join international collaborations committed to building climate resilience in vulnerable agriculture-dependent regions.

"Healthy, sustainable and green agriculture is crucial to realizing UN SDGs. Addressing the common challenges of agriculture demands our joint efforts. As NSFC's first joint funding opportunity in agricultural research with the Gates Foundation, this new program is well-placed to facilitate international collaborations and encour-

age Chinese researchers to contribute their knowledge and expertise, so as to tackle related scientific problems that developing countries are facing," said Prof. Xincheng Xie, Vice President of NSFC.

"Agriculture research is the key to providing a wealth of innovative, sustainable solutions that can empower millions of people with what they need to live healthy, productive lives," said Dr. Zhijie Zheng, Director of the China Country Office at the Gates Foundation. "This new program builds on our long-term partnership with the NSFC, directing China's expanding capacity for innovation to support small-scale farmers around the world."

The joint program will fund up to four proposals, with no more than two proposals in each of the two key areas. Each proposal, if selected, will be funded up to 250,000 USD by the NSFC and the Gates Foundation separately.

Letter to the Editor

Cross-Border E-commerce Can Help Alleviate Poverty in Global South

By Conteh Barbah Mohamed

The Chinese experience in cross-border e-commerce evolution and development, can be viewed as inspiration in the context of poverty alleviation in the Global South, especially in Africa.

Poverty has been an alarming topic in the Global-South countries, especially in Sub-Saharan Africa, where the prevalence of both abject and relative types of poverty is clearly seen. According to researchers, Africa has remained the most affected continent by the COVID-19 pandemic, with respect to poverty increase and reduction of household income. Based on the estimation made by the United Nations Conference for Trade and Development, the percentage of African people living below the poverty line was anticipated to increase by 3 percent in 2021. However, the continent is blessed with numerous riches and a youthful workforce. What it needs is an appropriate platform to stimulate its development. I believe that cross-border e-commerce could be one of the critical means to poverty alleviation in Africa.

In the late 1970s, when China embarked on its economic reform, millions of people began to be lifted out of poverty. Finally, in 2021 the nation has achieved total alleviation of poverty. I believe cross-border e-commerce played an important role in this.

Some Chinese e-commerce platforms like T. mall (Alibaba), JD.com, and Pinduoduo, were instrumental in observing the COVID-19 restrictions, from where international students in the country can buy goods online with no or less risk of contacting the virus. Furthermore, this shopping method also served to save time, money, and transportation cost for customers. In addition, these platforms help most of us foreign students to remain in China despite the pandemic, as we were able to buy everything from clothing and foodstuff, to cosmetics. As a significant percentage of international students cook for themselves, the e-commerce platforms provide almost everything needed by international students to cook at home.

From my experience, most of the raw foodstuff like palm oil, Maggi, fish, and numerous fruits are available in Africa in a huge quantity, at a much lower price than in China. The challenge is that we encounter too much food waste and loss due to inappropriate storage facilities, and there are no appropriate means of selling these products to raise income, apart from smuggling them to neighboring countries to be sold at the cheapest cost. This is a significant disadvantage to local farmers and SMEs. An efficient e-commerce platform can help salvage this situation and increase household income in Africa, especially in my country Sierra Leone. This can also create employment, as the cross-border e-commerce industry entails an extended value chain, based on my observation in China.

In recent years, the Chinese cross-border e-commerce generated huge revenue in the billions of dollars that have contributed to their economic development, despite the pandemic.

The current African e-commerce entails challenges like inadequate technological infrastructure, inefficient banking and payment systems, transportation costs, inadequate institutional infrastructure and security threats. Learning from the Chinese e-commerce models could help solve this problem.

Regarding the impact on poverty alleviation, the cross-border e-commerce is responsible for having helped to alleviate poverty in households, various industries, and the governmental sector. We need to give government and key business stakeholders reasons to establish reliable e-commerce infrastructure for a better Africa. China can also help Africa with effective and efficient training, finance, and joint venture business for achieving an outstanding cross-border industry, thereby alleviating abject poverty.

Conteh Barbah Mohamed is from Sierra Leone. This article belongs to the Outcome of 2021 MA Teaching Project "PBL Pedagogy on China Experience Sharing" by Li Li, Associate Professor, CIDGA, CAU.

PHOTO NEWS



China unveiled its first national botanical garden in Beijing on April 18. With a planned area of 600 hectares, the garden is an expansion of the Institute of Botany under the Chinese Academy of Sciences and the Beijing Botanical Garden. It has more than 30,000 plant species and five million representative plant specimens from five continents. To strengthen biodiversity protection, China is accelerating the construction of a system of national botanical gardens in places like Beijing and Guangzhou. Photo shows the entrance of the China National Botanical Garden in Beijing. (PHOTO: XINHUA)

Frequent, Repeated Tests Necessary to Detect COVID-19

By Staff Reporters

At the press conference held on April 17, Gao Chunfang, director of the Laboratory Center of Yueyang Hospital of Integrated Traditional Chinese and

Western Medicine Affiliated with Shanghai University of Traditional Chinese Medicine, explained the reasons for the high-frequency nucleic acid testing that is still being carried out in the country.

First, there is a certain incubation

period for any infectious disease, and a novel coronavirus infection is no exception. The incubation period varies from person to person.

Second, there is the concept of the detection window period, which refers

to the fact that after a patient is infected, the existing detection methods are not sensitive enough to detect the virus due to the low viral load.

Thus, it is less likely to detect positive results in the early stage of infec-

tion. Repeated testing can increase the probability of positive detection and timely detection of positive results.

Samples for COVID tests are collected through nasal swabs, throat swabs, or both, but there can be differ-

ences in the sampling process, such as the place and depth of sampling and the amount of material collected. Multiple tests can reduce the risk of false-negative results.

In addition, according to Gao, repeated testing is a common clinical way to detect pathogens such as urinary or blood tract infection.