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Newsletter

Headlines

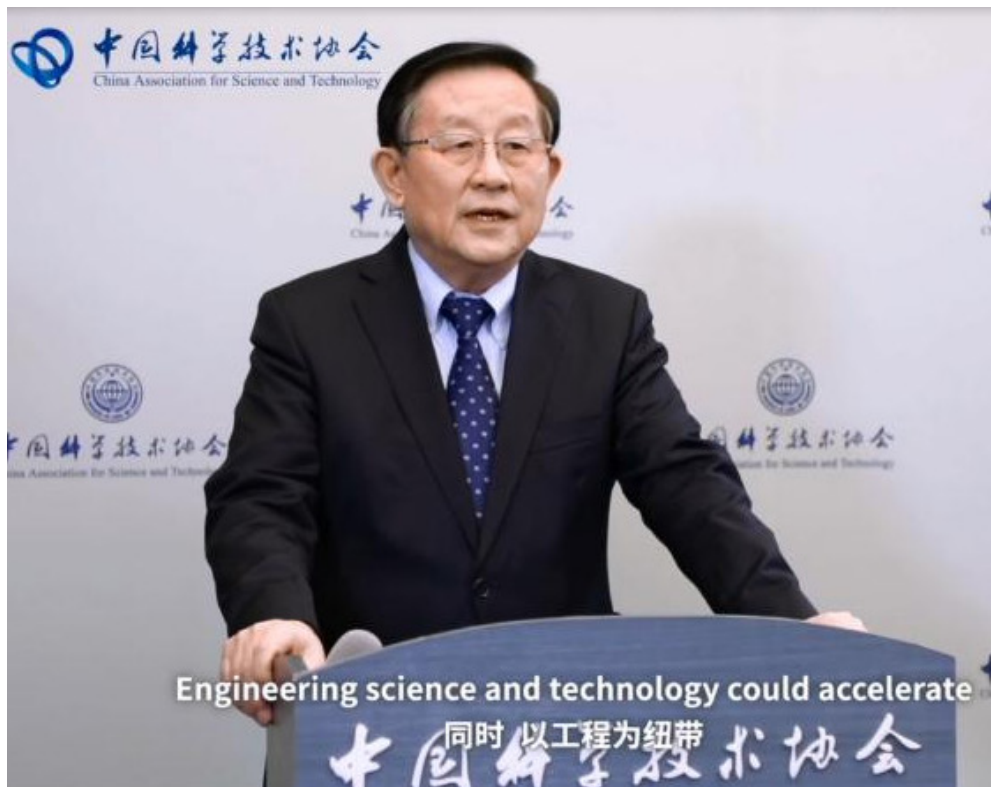
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World Engineering Day 2022 China Celebration Event

On March 4, 2022, World Engineering Day 2022 (WED 2022) was celebrated with the historic launch of WED2022 24HRS LIVE. Themed “Building Back Wiser: Engineering the Future,” the program featured presentations from Australia, China, India, France, Ghana, the United Kingdom, the United States, and Costa Rica demonstrating the important role of science and technology, particularly engineering technology, in boosting recovery from the COVID-19 pandemic and highlighting the irreplaceable role of engineers in building a sustainable future. It also called for building an open, innovative, and responsible world through engineering technology.

Wan Gang, Vice Chairman of the National Committee of

the Chinese People’s Political Consultative Conference (CPPCC) and President of the China Association for Science and Technology (CAST), Gong Ke, President of the World Federation of Engineering Organizations (WFEO), Huang Wei, President of the Federation of Engineering Institutions of Asia and the Pacific (FEIAP) and academician with the Chinese Academy of Sciences (CAS), and Yan Jinxiu, President of the International Tunneling Association (ITA), attended the event online and delivered speeches. In addition to a global live broadcast, the event also invited well-known engineering experts, organizations, and popular science workers to get involved in a series of activities to celebrate WED 2022 on multiple media platforms.



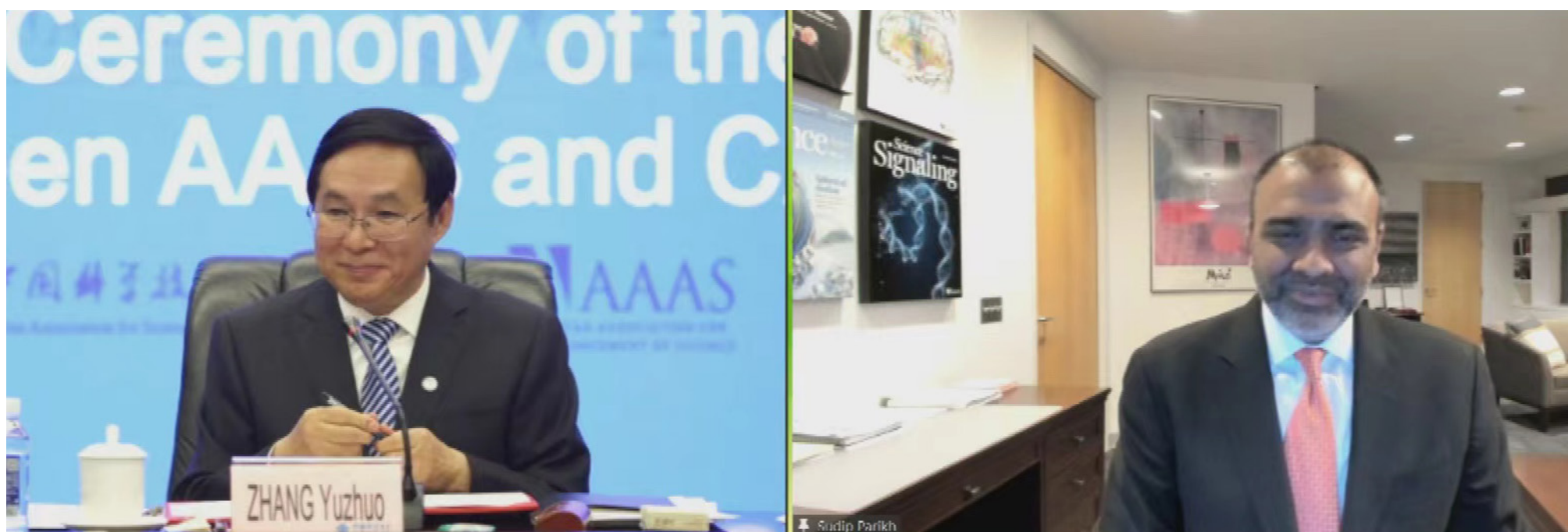
CAST Executive VP Zhang Yuzhuo has a virtual meeting with CEO of AAAS

On March 1, 2022, Zhang Yuzhuo, Executive Vice President and Chief Executive Secretary of CAST, virtually met with Sudip Parikh, Chief Executive Officer of the American Association for the Advancement of Science (AAAS), and Executive Publisher of the Science family of journals.

The two exchanged views on ways to promote public understanding and participation in science and technology, scientific integrity, academic standards and ethics, deepened exchange and cooperation in science and

technology policy, foster greater female participation in science and technology and engineering, strengthened cooperation on scientific journals, and academic and personnel exchanges. They expressed commitment to strengthening communication, enhancing openness and trust in the scientific and technological circles of the two countries, and promoting practical cooperation.

After the meeting, Zhang Yuzhuo and Sudip Parikh jointly renewed the Memorandum of Understanding (MoU) on Cooperation between CAST and AAAS.



CAST Summer Internship Program holds an online meeting

On March 4, 2022, the work mobilization meeting for the CAST Summer Internship Program for Hong Kong, Macao, and Taiwan university students was held online. Leaders from the CAST's Department of International Cooperation and Children & Youth Science Center (CYSC) and representatives of 8 pilot provinces and municipalities including Beijing, Tianjin, Shanghai, Jiangsu, Zhejiang, Fujian, Guangdong, and Sichuan, attended the meeting online.

The Summer Internship Program was established in 2002

by the China Association for Science and Technology (CAST) as an exchange program for Hong Kong, Macao, and Taiwan university students. It aims to provide young people from these areas an opportunity to experience the workplace, economy, and society of the Chinese mainland and feel the dynamics of multiculturalism. It helps them explore their full potential and values and achieve personal growth and development. Over the past 20 years, the program has hosted more than 4,000 students from over 20 universities in Hong Kong, Macao, and Taiwan and has been widely welcomed and acclaimed by participants.

17th Pan-Pearl River Delta Regional Science and Technology Association and Group Joint Conference held in Sichuan

On March 11, 2022, the Sichuan Association for Science and Technology and the Guangdong Association for Science and Technology jointly held the 17th Pan-Pearl River Delta Regional Science and Technology Association and Group Joint Conference in Chengdu, Sichuan Province.

The event was attended by about 90 representatives from a wide range of organizations, including 11 member units of the Joint Conference (science and technology associations in Guangdong, Hainan, Guangxi, Sichuan, Yunnan, Guizhou, Hunan, Fujian, and Jiangxi, Beijing-Hong Kong Academic Exchange Center, and Macau Institute of Engineers), Guangdong-Hong Kong-Macao Greater Bay Area Regional Association for Science and Technology, some provincial science and technology

societies, and specially invited organizations such as Hong Kong Productivity Council, Guangdong-CIS International Technological Cooperation Union, and the Sichuan International Medical Exchange & Promotion Association (SCIMEA).

The theme “Openness, Cooperation and Innovation” inspired participants to exchange views and share experience in international scientific and technological cooperation across the Pan-Pearl River Delta region and discuss measures and methods to promote technology sharing and innovation. Participants expressed hope to achieve development synergy and promote broader practical cooperation in science and technology, economy, and other sectors to complement various regional advantages for mutual benefits and win-win results.

2022 World Youth Scientist Summit Cooperation Symposium held

On March 3, 2022, the 2022 World Youth Scientist Summit (WYSS) Cooperation Symposium was held in Zhejiang Province. Representatives of the Zhejiang Association for Science and Technology and Westlake University attended the symposium. The two sides held discussions on the organization of the 2022 World Youth Scientist Summit, short-term exchange of young scholars, and high-end study visits.

The World Youth Scientist Summit is an academy event for high-level young global talent jointly organized and sponsored by the China Association for Science and Technology (CAST) and the Zhejiang Provincial People's Government. Themed “Converging the World's Talent, Creating a Better Future” this year, the Summit is held annually and praised by more than 20 international science and technology organizations.

National societies

CAST's member societies issue convention to uphold academic publishing ethics

On February 15, all of CAST's 211 national societies jointly issued the Convention on Ethics in Academic Publishing by the National Societies of the China Association for Science and Technology.

To support the work of all of China's scholarly community, the Convention outlined codes of conduct in the authorship of academic papers. It asked researchers, journal editors, and reviewers to uphold total editorial independence and clear ethical standards and avoid peer review manipulation to safeguard both fairness and objectiveness

in the publication process and the quality and integrity of published content to foster the high-quality development of China's scientific and technological undertakings. The Convention calls on all scientific researchers to abide by norms of scientific research activities, keep experimental data so that experiments can be replicated and verified, and ensure that research is authentic and credible. The Convention reaffirms ethical guidelines for article publication, advocates honesty and trustworthiness in scientific research practice, and draws clear lines against academic misconduct.

Vivian Wing-Wah YAM elected President of International Organization for Chemical Sciences in Development

Renowned scholar Vivian Wing-Wah YAM, Executive Director of the Chinese Chemical Society, an academician with the Chinese Academy of Sciences (CAS), and Professor at the University of Hong Kong, was recently elected President of the International Organization for Chemical Sciences in Development (IOCD), following two prominent scientists and former Presidents: Nobel Laureates Professors Glenn T. Seaborg, founding President, and Professor Jean-Marie Lehn, his successor.

Professor YAM's research interests include inorganic and organometallic chemistry, supramolecular chemistry,

photophysics and photochemistry, and metal-based molecular functional materials. Her career has been marked by many major awards for highly distinguished scientific contributions. She received the American Chemical Society (ACS) National Award and the 2022 Josef Michl ACS Award in Photochemistry. She is also honored as an inaugural Pioneer in Energy Research by ACS Energy & Fuels in 2021, which dedicated a special issue to her. In 2020, she was awarded the Porter Medal by the European Photochemistry Association, the Inter-American Photochemistry Society, and the Asian and Oceanian Photochemistry Association.

Xu Yigang, Academician with the Chinese Academy of Sciences, elected Geochemistry Fellow

The Geochemical Society (GS) and the European Association of Geochemistry (EAG) recently announced the names of its 2022 Geochemistry Fellows. Professor Xu Yigang, a geochemist from the Guangzhou Institute of Geochemistry (GIG) of the Chinese Academy of Sciences (CAS) and chief supervisor of the Chinese Society of Mineralogy, Petrology, and Geochemistry (CSMPG), was selected as a Geochemistry Fellow for his outstanding

contributions in the field of international geochemistry.

The honorary title of Geochemistry Fellow was established in 1996 by the Geochemical Society and the European Association of Geochemistry to be bestowed on outstanding scientists who have, over the years, made a major contribution to the field of geochemistry.

2022 World Transport Convention scheduled for Wuhan

On February 17, 2022, the 2022 World Transport Convention (WTC 2022) was scheduled to convene in Wuhan from June 13 to 16 of this year. The convention will be co-hosted by the China Association for Science and Technology (CAST), China's Ministry of Transport (MOT), and the Chinese Academy of Engineering (CAE), organized by the China Highway and Transportation Society (CHTS), and supported by sponsors in transport technology from China and beyond. The theme this year is "Innovation, Low Carbon, Recycle, and Sharing - More

Sustainable Transport".

Since its inception in 2017, the World Transport Convention has been held three times. It has served as an important platform for stakeholders to present research work and innovation, share experience, exchange views, and promote innovation and development of transport science and technology. It has received worldwide industry recognition.

S&T News

China's Ministry of Science and Technology releases list of top 10 scientific advances of 2021

On February 28, 2022, the High-Tech Research and Development Center (Basic Research Management Center)

(HTRDC) of China's Ministry of Science and Technology published a list of China's top 10 scientific advances of 2021.

Honorees were the Tianwen-1 Mars probe's successful landing on Mars, the successful launch of China's space station core module Tianhe, the Shenzhou-12 and Shenzhou-13 manned spacecrafts' successful launch and docking with the core module, starch synthesis from carbon dioxide, lunar evolution advances from lunar samples brought back by the Chang'e-5 mission, mechanism of SARS-CoV-2 evading antiviral drugs, the

world's largest fast radio bursts sample detected by the Five-hundred-meter Aperture Spherical Radio Telescope (FAST), scalable production of high-performing fiber lithium-ion batteries, quantum walks on a programmable two-dimensional 62-qubit superconducting processor, self-powered soft robot swimming in the Mariana Trench, and identifying the causes of bird migration routes and key genes of long-distance migration.

China approves COVID-19 rapid antigen tests for public use

On March 11, 2022, China's National Health Commission announced that the State Council Joint Prevention allows the use of antigen tests as a complement to mainstream nucleic acid tests and has updated its treatment plan by issuing provisional application guidelines on COVID-19 antigen tests. According to Li Jinming, Deputy Director of the NHC's Clinical Testing Center, the sensitivity of

the antigen tests that have already been approved in China generally ranges between 75% to 98%, and specificity measures between 95% to 99%. They are useful for those facing a high risk of infection. As of March 17, 2022, China's National Medical Products Administration had approved a total of 14 rapid antigen test (RAT) kits for COVID-19.

Professor Li Xiang-dong of Hong Kong Polytechnic University honored with 2022 Clair C. Patterson Award

Professor Li Xiang-dong, Dean of Faculty of Construction and Environment at Hong Kong Polytechnic University (PolyU), was honored with the 2022 Clair C. Patterson Award in recognition of his innovative and dynamic work in environmental geochemistry, including research in the fields of regional contamination, urban air PM2.5 pollution, and the origin and dissemination of antimicrobial

resistance.

The Clair C. Patterson Award is presented to only one recipient annually by the Geochemical Society for an innovative breakthrough in environmental geochemistry of fundamental significance within the last decade, particularly in service to society.

Cell cover story: Chinese scientists discover a new way to tackle obesity

On March 4, 2022, the prestigious international journal *Cell* published a new online study by Chinese scientists. The article, written by Ma Xinran, Xu Lingyan, and Zhang Qiang from the School of Life Sciences of East China Normal University, and Professor Hu Cheng of Shanghai Jiao Tong University Affiliated Sixth People's Hospital, reported the effects and molecular mechanism of how local hyperthermia therapy (LHT) targeting beige fat induces thermogenesis to reduce obesity and alleviate metabolic disorders. The paper was chosen as the cover story of *Cell*

and will be officially published on March 17.

"It is often problematic to use targeted therapy in treating obesity and metabolic disorder because it takes time to develop effective drugs, and because of the risks of off-target effects and potential side effects," wrote co-author Ma Xinran. "However, the conclusions of our study suggest that LHT might present an alternative because it is easy to apply, has little adverse effects, and is highly effective."

CAST is the largest non-governmental organization of scientific and technological professionals in the world. Through its 211 member societies and local branches all over the country, CAST maintains close ties with millions

of Chinese scientists, engineers, and other professionals working in fields of science and technology.

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