

# Science China Newsletter, June 2020

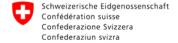
Trends in education, research, innovation and policy



Fenghuang, China

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### **Swiss Spotlight**

#### Thank you to all the Swiss Spotlight Scientists

(swissnex China, June 30, 2020)

David N. Jansen a computer scientist; Simon Duttwyler a full-time chemistry professor at at Zhejiang University; Fred Mast a cognitive scientist and visiting professor at the Institute of Neuroscience, Chinese Academy of Sciences in Shanghai; Mario Andrea Marchisio an Associate Professor in Synthetic Biology at Tianjin University; Martin Schnauss visiting Professor at University of Science and Technology Beijing; Bernhard Schmid guest professor at Peking University; Stefanie Tschirky fashion design and



fashion history lecturer at Mod Art International, Shanghai University; Ying Liu an Assistant Professor in Finance at the Shanghai University of Finance and Economics; Markus Prandini Visiting Professor at Shenzhen Technology University; Tudor S. Ratiu Chair Professor of Mathematics and Vice Dean of Network of International Centers of Education at the School of Mathematical Sciences, Jiao Tong University; Laurent Kneip Assistant Professor within the School of Information Science and Technology at ShanghaiTech University; Marc Troyanov visiting professor at Shanghai JiaoTong University; Justin Veuthey a visiting researcher at the School of Public Administration of Shandong University; Alexandre Sadeghi an architect and designer and part of Design Principal at Studiolite (SLT), based in Shanghai...

/web/2020/00-200630-aa

#### Thank you to all the Swiss Spotlight Startups

(swissnex China, June 30, 2020)

Wingtra for professional VTOL drones for mapping and surveying; Flyability for building safe drones and operating indoors, in complex and confined spaces and in contact with people; UrbanFarmers (UF) a global pioneer in urban farming and aquaponics; Technis a smart flooring solutions for people flow management and monitoring in complex environments; Ava a medical data technology company focused on innovations in women's reproductive health; Fixposition AG developping the next generation of navigation and localization systems; SimplicityBio's machine learning platform BOSS analyses biological, clinical and digital data streams; Cellestia a privately-owned clinical



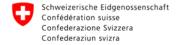
stage biopharmaceutical company; Climeworks for CO2 removal to enable negative emissions and achieve zero CO2 emissions globally; hololone for out-of-the-box Augmented Reality solutions across industries; rqmicro for rapid microbiological tests to improve water and food safety; Deep Cube SA developping artificial intelligence (AI) technologies for medical screening in real time; Verity as global leader in autonomous indoor drone systems and a leading provider of drone failsafe technology; Embion to access to next-generation nutrition innovation through its platform technology...

/web/2020/00-200630-f1

#### Latest Data on Novel Coronavirus

(China Daily, June 30, 2020)

https://www.chinadaily.com.cn/china/special\_coverage/2020latestdata/web/2020/00-200630-32





### 1. Policy

#### SOE Reforms to Drive Economic Development and Competitiveness

(China Daily, June 05, 2020)

As China prepares to soon unveil a three-year action plan for the reform of its State-owned enterprises to further focus on mixed-ownership reform and reorganization, industry experts said the move will aid the government's efforts to steer the economy toward innovation and technology-driven high-quality growth. Premier Li Keqiang delivered the Government Work Report on May 22 at the opening of the third session of



the 13th National People's Congress in Beijing, during which it was announced that China will launch a three-year action plan for SOE reform, improve the system of State capital regulation and intensify mixed ownership reform of SOEs. The country will basically complete the task of relieving SOEs of the obligations to operate social programs and resolve their other longstanding issues. SOEs should focus on their main responsibilities and businesses, establish sound market-oriented operating mechanisms and increase their core competitiveness.

/web/2020/01-200605-56

#### Quicker Approval for Business Startups

(China Daily, June 25, 2020)

China will work to cut the time needed for approval to start a business to no more than four working days by the end of this year, and better regulate charges imposed on businesses by industry bodies and associations, a State Council executive meeting chaired by Premier Li Keqiang decided on June 24. Procedures and services for starting a businesses will be optimized. A unified online platform for accessing such services will be established in every province by the end of the year, allowing applications to be filed online in a single form. Efforts will be made to reduce the time needed to process applications to start a new business from five working days to no more than four.

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#### 2. Education

#### Chinese Universities Rise in Global Rankings

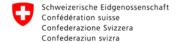
(ChinaDaily, June 13, 2020)

Fifty-one universities on the Chinese mainland have been included in the global top 1,000 universities, compared with 42 in its last rankings, according to the latest QS World University Rankings. Tsinghua University is China's highest-ranked university, rising from 16th place last year to 15th, and achieving its best ranking since the list was first published in 2004, according to the rankings released by London-based higher



education analyst QS Quacquarelli Symonds. Peking University slipped one place to 23rd. Fudan University rose six places to 34th and Shanghai Jiao Tong University rose 13 places to 47th. Both universities achieved their best rankings. QS ranked 1,000 universities from 80 countries and regions. Six indicators were used in compiling the annual rankings, including academic and employer reputation, citations per faculty, student-to-faculty ratio, as well as international student and faculty ratios.

/web/2020/02-200613-13





#### \$24b on Compulsory Education in 2020

(China Daily, June 17, 2020)

China's central budget has allocated 169.59 billion yuan (about \$23.93 billion) worth of subsidies to support compulsory education in 2020, an increase of 8.3 percent year on year, the Ministry of Finance said on June 17. The subsidies will be spent to ensure the development of compulsory education and enhance the quality of education, according to the ministry. Starting from the spring semester this year, schools in central and



western China will receive the same amount of subsidies as schools in the eastern part of the country. Primary schools will receive 650 yuan annually for every student they have and junior high schools will get 850 yuan per student, said the ministry.

/web/2020/02-200617-90

#### **Education Sector Continues to Open Up**

(China Daily, June 19, 2020)

China will continue to open up its educational sector, a new guideline issued by the Ministry of Education and seven other departments said on June 16. An official from the ministry's Department of International Cooperation and Exchanges said although the COVID-19 pandemic has reshaped the global political and economic landscape, and China's development is faced with a more complex external environment, the country



remained committed to opening up its education sector. The pandemic will only have a temporary impact on the country's students going abroad, the official said. The guideline reiterated that the country will continue to cultivate more talent for its modernization drive by encouraging students to study abroad, and the ministry will continue to expand cooperation with other countries and offer more opportunities for overseas study, the official said.

/web/2020/02-200619-cc

#### School Drop-out Rate Declines by 99 Percent

(Global Times, June 21, 2020)

China has reportedly achieved a nearly 99 percent decline in the number of school dropouts before the end of their 9-year compulsory education, an important factor in accomplishing its 2020 goal of poverty alleviation. More impoverished drop-outs in China are returning to school with the help of governments. The number of students having dropped out of school had largely decreased from 600,000 in May 2019 to 6,781 by



June 2020, the People's Daily reported on June 19. As for China's 52 counties that haven't been pulled out of poverty, there were a total of 82,000 drop-outs in May 2019 but only 433 by June 2020, it added.

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#### Beijing Keeps Gaokao Dates as Scheduled

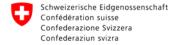
(China Daily, June 30, 2020)

Around 50,000 students in Beijing will go back to campus to sit for their college entrance examinations with strict coronavirus prevention measures in place, a senior official announced. According to the commission, 49,225 students in their final year of senior high school will participate in the exam at 2,867 examination rooms in 132 schools. Each room will hold no more than 20 students in order to reduce density, and spare rooms are



prepared for emergency use. For students who are in centralized quarantine for medical observation, they will take the exams alone in rooms. Local governments will provide private transportation for those students to prevent infection.

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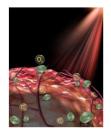


#### 3. Life Sciences / Health Care

#### Oxygen from Engineered Algae to Treat Hypoxic Cancer

(Zhejiang University, June 11, 2020)

Microalgae, a photosynthetic unicellular microorganism in nature, have been extensively used in biofuels, food, and nutrition. Recently, the research team led by ZHOU Min and SUN Yi from the Institute of Translational Medicine and the Second Affiliated Hospital, School of Medicine made groundbreaking discoveries about the role of engineered algae in cancer therapies. In their study, engineered live microalgae can be delivered to hypoxic tumor regions to increase local oxygen levels and resensitize resistant cancer cells to both radioand phototherapies. The hypoxic environment in tumors is markedly improved by in situgenerated oxygen through microalgae-mediated photosynthesis, thereby boosting



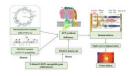
radiotherapeutic effects. Furthermore, the chlorophyll from microalgae produces reactive oxygen species during laser irradiation which can further enhance the photosensitizing effect and promoting tumor cell apoptosis. These findings demonstrate a novel approach that leverages the products of photosynthesis for treatment of tumors and provide proof-of-concept evidence for future development of algae-enhanced radio-and photodynamic therapies.

/web/2020/03-200611-1e

#### New Insights on Hereditary Eye Disease

(Zhejiang University, June 15, 2020)

The mutation of the X-linked nuclear modification gene PRICKLE3 was discovered for the first time and it was found to synergistically function with mitochondrial mutation, thus triggering Leber's hereditary optic neuropathy (LHON). Their findings answered the long-time unsolved question of 'gender bias' associated with this hereditary eye disease, which marks a milestone breakthrough in the research on pathogenic mechanism of



mitochondrial disease LHON. A systematic large-scale gene screening of more than 200 Han ethnic LHON families helped to the discovery of the X-linked gene PRICKLE3. A series of functional studies also revealed the synergy between mitochondrial gene 11778G>A mutation and X-linked nuclear modification gene mutation leading to the aggravation of the mitochondrial energy metabolism.

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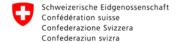
#### Increase in Public Health Emergency Supplies

(China Daily, June 17, 2020)

China will enhance its capacity of ensuring public health emergency supplies, with improved prevention and medical treatment, material reserves and production capabilities, the country's top economic planner said on June 16. In late April, the central authority adopted a plan on securing public health emergency supplies, with aims to tackle problems and improve weak links in the system, and comprehensively improve



the country's response abilities in terms of major public health emergencies. China will increase the investment in the construction of disease prevention and control institutions at various levels and biosafety laboratories, with each provincial-level region having at least one P3 laboratory with relatively high biosafety standards. /web/2020/03-200617-7d

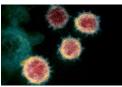


SWISSNEX **%** China

#### No Immunity Against Covid-19, New Study Suggests

(SCMP, June 18, 2020)

Humans may never develop immunity against Covid-19, according to new research on antibodies by Chinese and American scientists. Their conclusion was based on a study looking at whether hospital workers in Wuhan who were directly exposed to infected patients at the early stage of the outbreak had developed antibodies. At least a quarter of the more than 23,000 samples tested could have been infected with the virus at some



stage, according to the scientists. But only 4 percent had developed antibodies as of April. "People are unlikely to produce long-lasting protective antibodies against this virus," the researchers concluded in a non-peer-reviewed paper posted on preprint website medRxiv.org.

/web/2020/03-200618-5c

#### Coronavirus Strain Isolated Related to latest Beijing Outbreak

(China Daily, June 18, 2020)

Chinese scientists have successfully isolated the coronavirus strain that caused the latest COVID-19 outbreak in Beijing. The strain was isolated from samples collected from the respiratory tracts of infected cases in Xinfadi, a major wholesale market for agricultural products in Beijing. Nucleic acid testing showed success in the isolation and nurturing of the virus strain, as they are propagating quickly. The success is of



significance to getting to know more about the virus strain for the latest COVID-19 outbreak in Beijing, including its sequence and replication characteristic, evaluation of vaccines and selection of drugs for virus. \( \lambda \text{web} \) \( \lambda \text{2020} \) \( \lambd

### 4. Engineering / IT / Computer Science

#### New Observations for Giant Telescope

(ChinaDaily, June 03, 2020)

The 500-meter Aperture Spherical Telescope, or FAST, China's mega-science project and the world's largest single-dish radio observatory, has embarked on a search for extraterrestrial intelligence, according to science and Technology Daily. Located in Pingtang county in Guizhou province, FAST was officially unveiled in September 2016. As the world's largest instrument of its type, it can detect radio-waves from billions of light-years away. The search for extraterrestrial intelligence is one of the five main



scientific goals of FAST. In 2018, FAST installed back-end equipment specifically to find extraterrestrials. At present, the back-end equipment is being upgraded, and it is expected that new observations can be made after September when the extraterrestrial civilization search will be launched.

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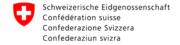
#### Unmanned, Air-Ground Vehicle for Deliveries, Rescue Missions

(ChinaDaily, June 15, 2020)

Developed by a team from Tsinghua University, the unmanned electric vehicle can switch between ground working mode and flying mode. It has a four-wheel drive system and is equipped with a rotor to enable flight. The vehicle, which is 1 meter long, 0.6 meters wide and 0.6 meters high, can conduct three-dimensional path planning, and can realize the functions of vertical takeoff and landing, spatial planning, hovering in the air and flight obstacle avoidance, according to the team. With a real-time perception module, the



vehicle can recognize different types of obstacle or terrain. When it encounters obstacles or terrain that cannot be bypassed on the ground, the vehicle can switch to flying mode and seek a more suitable area for driving





on the ground. The efficient and smooth switch of working modes will help improve the efficiency of transportation.

/web/2020/04-200615-2c

#### **UAV Capable of Serving Emergency Communication**

(China Daily, June 19, 2020)

The universal platform of the China-developed Wing Loong-1 Unmanned Aerial Vehicle (UAV) has been tested fit for facilitating space-air-ground emergency communication, according to its developer on June 19. The Wing Loong-1 universal platform has successfully passed a series of tests in an airfield in northwest China, said the state-owned plane maker Aviation Industry Corporation of China (AVIC). The successful tests proved that the Wing Loong-1 universal platform is fully capable of emergency communication and relay functions when loaded with base station and satellite communication (SATCOM) equipment, said the AVIC. It also showed that the Wing Loong-1 universal platform is capable of providing space-air-ground emergency communication support amid communication interruptions under emergency conditions.

/web/2020/04-200619-80

#### 5G Solutions for Smart Cities

(China Daily, June 24, 2020)

As the commercialization of 5G accelerates in China, more companies are exploring what smart cities will look like in the 5G era. US chip giant Intel Corp, for instance, is teaming up with partners such as China Unicom to build a 5G smart park in Nanjing, capital of Jiangsu province, to offer a peek into the future of such smart cities. The company's project, the Future Technological Smart Center in Nanjing, aims to gather a



wide range of domestic and foreign partners around artificial intelligence, internet of things, 5G, cloud computing and other technological innovations to explore what future cities will look like. At this time, the Nanjing center is covered by 5G signals from China Unicom. More than 20 cutting-edge applications have been implemented, including a smart office, conference, retail, education, robots and multimedia visual interaction.

/web/2020/04-200624-23

#### Successful Test Run of 600 km/h Maglev Prototype Train

(Tongji University, June 27, 2020)

The 600km/h high-speed maglev prototype train, built by the China Railway Rolling Stock Corporation (CRRC) Sifang Co., Ltd. and co-developed with Tongji University, successfully completed its test run on the maglev test track at the Jiading campus of Tongji University, which marked an important breakthrough in China's high-speed maglev research and development. On the high-speed maglev test track, the maglev prototype train had its first system debugging and extensive testing under the multiple



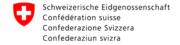
situations. More than 200 tests of seven categories were undertaken on key dynamic performances such as levitation and guidance, speed and position detection, rail coupling, ground traction, and train-ground telecommunications. The test results showed that the train's key performance indicators had met its design standards and expectations.

/web/2020/04-200627-7e

### Renovation Completed for Deep-sea Manned Submersible Ship

(China Daily, June 29, 2020)

Tansuo 2, the mother ship for China's manned submersible that is capable of diving to depths of 10,000 meters, has returned to Sanya in South China's Hainan province after an 18-month renovation project. Owned by the Chinese Academy of Sciences, Tansuo 2 adopts an advanced electric propulsion system and positioning





system, which can provide sufficient power and automatic cruise capability for deep-sea explorations. It can carry 60 researchers and serve as the mother ship for China's new manned submersible Fendouzhe (Striver) and manned submersible Shenhai Yongshi (Deep Sea Warrior), capable of reaching depths of 10,000 meters and 4,500 meters, respectively.

/web/2020/04-200629-f5

#### China Leads in Superfast Computers

(China Daily, June 30, 2020)

Chinese manufacturers continue to dominate the list of makers of the world's fastest supercomputers in terms of the number of systems, according to Top500, an authoritative ranking on supercomputers globally. Supercomputers installed by three Chinese vendors, Lenovo, Sugon and Inspur, account for 312 of the top 500 systems on the 55th edition of the Top500 supercomputer list. Lenovo provided 180 of the systems,



Sugon 68 and Inspur 64. The new fastest supercomputer is the Japanese system "Fugaku", followed by the second-placed "Summit" system of the United States. At number three is "Sierra," a system at the Lawrence Livermore National Laboratory in the US state of California. Chinese supercomputers "Sunway TaihuLight" and "Tianhe-2A" were placed fourth and fifth on the Top500 list.

/web/2020/04-200630-0f

### 5. Energy / Environment

#### Air Quality Improved While Density of Ozone Rised

(Global Times, June 02, 2020)

Among China's 337 cities, 157 have met the air quality standard in the past year, accounting for 46.6 percent. The cities on average enjoy 82 percent of days with good air quality, which indicates their air quality index (AQI) was lower than 100, according to the China Environment Report 2019 published by the Ministry of Ecology and



Environment on June 2. However, the density of ozone rose in 2019. Across the country, days of ozone pollution accounts for 41.8 percent of all pollutions in the year, becoming a key problem in summer's air quality, Bai Qiuyong, chief at the Department of Ecological and Environmental Monitoring of Chinese Ministry of Ecology and Environment (MEE) said at a press conference on June 2, in response to that ozone pollution problem has been more obvious as the density increased year by year.

/web/2020/05-200602-13

#### Green Technologies in 8 Fields

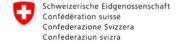
(China Daily, June 05, 2020)

Beijing will make efforts to develope green technologies in eight fields including air pollution prevention and control and water conservation and water environment. The fields also include energy saving and environmental services, solid waste decreasing and recycling, restoration of polluted areas and soil, use of modern energy, smart transportation, and eco-agriculture and eco-forestry, according to a plan jointly formulated by the Beijing Municipal Commission of Development and Reform and the



Beijing Municipal Science and Technology Commission. The plan, which highlights the leading role of companies in green technology innovation, forms part of efforts to build Beijing into an innovation center for environment-friendly technologies with global influence.

/web/2020/05-200605-d1





#### Grim Flood Season

(China Daily, June 12, 2020)

With higher precipitation than normal years, the country will confront a grim flood control situation this rainy season as torrential downpours wreak havoc in southern parts of the country. The accumulated precipitation so far this year has been 6 percent more than the same period in recent years. Following 19 rounds of rainfall, 148 rivers have been stricken by floods that raised water above their warning levels. Rainfall since June 2, which has engulfed 12 provincial regions, stands out as the strongest. The areas that



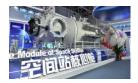
have received over 40 centimeters of precipitation reach more than 24,000 square kilometers. Floods caused by the downpours had left nine dead and another five missing in eight provincial regions, including Hunan and Guizhou provinces. A total of 120,000 people were evacuated.

/web/2020/05-200612-4f

#### New Lab to Develop Next-generation Batteries

(Xinhuanet, June 25, 2020)

Contemporary Amperex Technology Co. Limited (CATL), China's largest lithium-ion battery maker, broke ground on a new laboratory to develop next-generation batteries. It is being constructed at its headquarters in the city of Ningde, east China's Fujian Province. The "21C Lab," covering an area of 18 hectares, will focus on the development of next-generation electrochemical energy storage systems, and new energy conversion



systems. Beyond advanced research and development on metal lithium batteries, all-solid-state batteries and sodium-ion batteries, the 21C Lab will also work on the commercial application of its technology, such as developing lithium-ion battery reliability models, and non-destructive testing technology, the company said in a press release.

/web/2020/05-200625-3f

### 6. Physics / Chemistry / Material Science / Nano- & Micro Technology

### Plans to Have Rover on Mars in July

(China Daily, June 03, 2020)

China plans to launch a Long March 5 carrier rocket in July to send a spacecraft toward Mars that will land a rover on the red planet, according to the program's major contractor. China Aerospace Science and Technology Corp, a State-owned space conglomerate, said in a statement that the Tianwen 1, or Quest for Heavenly Truth 1, mission will fulfill three scientific objectives—orbiting the red planet for comprehensive observation, landing on the Martian surface and sending a rover to roam the landing site. It will conduct scientific investigations on Martian soil, geological structure, environment, atmosphere and water.

/web/2020/06-200603-7a

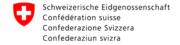
#### **Ultra-Secure Quantum Internet**

(China Daily, June 16, 2020)

Chinese scientists have achieved the world's first quantum key distribution over 1,120 kilometers without relying on any intermediate security relays. Experts said this represents a major milestone in building a practical global-scale, ultra-secure quantum internet, but the actual technology might still be years away. Quantum key distribution, known as QKD, is a technique used to achieve secure communication that uses



cryptographic protocols based on the laws of quantum mechanics. Today's QKD is mostly conducted through optical fibers on the ground, with few exceptions using quantum satellites. These protocols can generate





secret security keys that enable more secured data transfer between devices by allowing authorities to spot eavesdroppers trying to intercept communications.

/web/2020/06-200616-50

#### Water Structure Research Breakthrough with Light Source

(Xinhuanet, June 19, 2020)

Using large light source equipment, Chinese researchers have discovered the existence of a three-dimensional (3D) structure in a water droplet composed of just five molecules, representing a major step in solving a century-old scientific challenge. Scientists from the Dalian Institute of Chemical Physics, under the Chinese Academy of Sciences (CAS), and Tsinghua University, using China-developed vacuum ultraviolet free electron lasers, have observed a 3D structure in a water cluster, which is composed of five water molecules.

/web/2020/06-200619-a5

#### Beidou System's Applications Spread Around Globe

(China Daily, June 24, 2020)

China's domestically developed Beidou Navigation Satellite System has been widely used in many public sectors and business fields at home and abroad, according to the China Satellite Navigation Office. By the end of 2019, more than 100 million Beidoubased navigation chips, modules and other products had been sold. The system had by then been applied to nearly 6.6 million taxis, buses and trucks around China as well as



more than 70,000 fishing vessels across the country. More than 10,000 fishermen had been rescued or received assistance after they used a Beidou device to ask for help. Over 3,200 navigation facilities along rivers and more than 2,900 maritime navigation establishments now employ Beidou services. Beidou-enabled functions are also used in at least 50,000 agricultural machines and have improved their operational efficiency. /web/2020/06-200624-30

#### C919 Passenger Plane Conducts Test Flights

(China Daily, June 29, 2020)

China's indigenously-developed C919 large passenger aircraft has started high-temperature test flights in Turpan, a city known as the land of fire in Northwest China's Xinjiang Uygur autonomous region. The test flight team from the Commercial Aircraft Corporation of China, the manufacturer, decided to hold the tests and collect performance data at Turpan airport after analyzing meteorological reports of airports nationwide. The C919 conducted a successful maiden flight in 2017. Now the aircraft has started intensive test flights from various airports to make sure performance can meet airworthiness standards.

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## 7. Economy, Social Sciences & Humanities

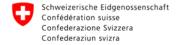
#### Train Tickets going Paperless

(Xinhuanet, June 19, 2020)

Normal-speed trains play a vital role in railway transport and also serve as an important choice for passengers, handling over one-third of all railway passenger trips annually. Now, railway passengers across China will wave goodbye to paper tickets as the country allows people traveling on normal-speed trains to use electronic tickets. The e-ticket system, which was previously limited to high-speed and intercity railways, will be



promoted on rail lines running at normal speed, with over 1,300 such stations involved in the new arrangement. <a href="https://web/2020/07-200619-11">web/2020/07-200619-11</a>





#### New Measures to Promote STAR Market

(Xinhuanet, June 19, 2020)

China's top securities regulator announced that the country would introduce a series of innovative mechanisms to advance the development of the sci-tech innovation board, also known as the STAR market. Policies will be rolled out to bring stocks on the STAR board tradable under the Shanghai-Hong Kong Stock Connect program, introduce the market maker system, and facilitate the transfer of old stocks during initial public offerings (IPOs), Yi Huiman, chairman of the China Securities Regulatory Commission (CSRC), said at the Lujiazui Forum in Shanghai. The country will unveil measures for the management of refinancing on the STAR board, and promote a rapid microfinance system to help enterprises, with core technologies, utilize the capital market for further growth, said Yi.

/web/2020/07-200619-c0

### Wuhan Documentary Goes Viral

(China Daily, June 30, 2020)

Long Time No See, Wuhan, a documentary featuring 10 stories of 10 families in Wuhan, the capital of Central China's Hubei province, the hardest-hit region in China by COVID-19, was viewed more than 25 million times in its first 24 hours online in late June. The film was produced by Takeuchi Ryo, a director from Japan. On May 15, Takeuchi called for volunteers living in the city to share their life experience after the virus outbreak on China's Twitter-like Weibo. After preparing for two weeks, Takeuchi arrived in Wuhan with his team to interview 10 selected families. As shooting progressed, Takeuchi found the interviews went really smooth. Many people wanted to assist or drive them around for free, and the hotel offered the group guest rooms for the lowest price.

/web/2020/07-200630-6c

### 8. Corporates / Startups / Technology Transfer

#### Insurer Ping An Tops Global Fintech Patent List

(China Daily, June 15, 2020)

China's leading insurer Ping An took the top spot in the world in fintech patents by filling 1,604 patents last year, according to a report released by the World Intellectual Property Organization. A total of 3,909 enterprises from 33 countries filed 14,706 fintech patents by the end of 2019, the report said. Alibaba filed 798 fintech patents, ranking second. Among the top 100 list, 48 enterprises came from China, covering traditional finance,



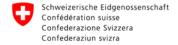
fintech, internet, e-commerce, technology, and telecommunications. Ping An has become one bright spot on the ranking, with its subsidiaries accounting for half of the top 10. Pingan Technology and Ping An's fintech arm OneConnect entered the top three, while Ping An Life Insurance, Ping An Property Insurance and Ping An HealthKonnect entered the top 10 ranking.

/web/2020/08-200615-58

#### Sanofi to Boost Healthcare Innovation in China

(China Daily, June 22, 2020)

French pharmaceutical giant Sanofi has announced an investment in a global venture capital fund in a bid to support worldwide innovation and technology, especially in China, its second-largest market. The capital injection in Cathay Innovation at an undisclosed amount will serve to strengthen Sanofi's connection to innovative healthcare ecosystems and help the company better navigate China, its strategic priority of development and innovation, Pius S. Hornstein, general manager for general medicines and country lead for Sanofi China said. Hornstein said the bet placed in China is due to the expectation that 30 percent of GDP





growth will be driven by China over the next decade, and the healthcare market is expected to claim roughly 10 percent of that growth.

/web/2020/08-200622-e8

#### Huawei to Build R&D Center in UK

(China Daily, June 26, 2020)

Chinese technology firm Huawei announced that it will build a state-of-the-art center in Cambridge, Britain, which will focus on the research, development, and manufacturing of optical devices and modules. According to the Chinese company, it acquired 500 acres (about 2.02 square km) of land in Cambridge in 2018 and the first phase of the Huawei Campus was approved by the local council on June 25. Huawei will invest 1 billion pounds (around \$1.2 billion) in the first phase of the project, which includes



construction of 50,000 square meters of facilities and will directly create around 400 local jobs, the company said. /web/2020/08-200626-c8

#### 9. Bilateral News

#### WHO Working Closely with China over COVID-19 Cases

(ChinaDaily, June 16, 2020)

The World Health Organization expressed concern over the new cluster of COVID-19 cases in Beijing after the Chinese capital experienced 50 days without any significant local transmission. The local authorities conducted nucleic acid tests on 76,499 people, with 59 testing positive for COVID-19, the municipal health commission said. WHO Director-General Tedros Adhanom Ghebreyesus said that more than 100 cases have



now been confirmed since China reported a new cluster of cases in Beijing after more than 50 days without a case in that city. Ryan said that Chinese authorities, like in South Korea, Japan and many other countries, have learned many lessons in the last six months in how to handle COVID-19 and have significant capacity. He said that WHO's team in China, based also in Beijing, is working closely with officials from China's National Health Commission and China's CDC (Center for Disease Control) and CDCs around China. <a href="https://www.web/2020/09-200616-9e">web/2020/09-200616-9e</a>

Calls for Grants/Awards

#### 2020 IAGC Ebelmen Award

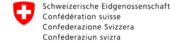
10.

(Fudan University, June 09, 2020)

The International Association of GeoChemistry (IAGC) is a pre-eminent international geochemical organization founded 1967. The Ebelmen Award endorsed by IAGC is awarded biennially to one geochemist of particular merit and outstanding promise less than 35 years old at the time of nomination. Dr. Zimeng Wang, a young researcher at the Department of Environmental Science and Engineering, Fudan University, claimed the Ebelmen Award 2020 for his contributions to geochemistry, the study of what's beneath the earth's surface. Wang takes a particular academic interest in aquatic geochemical processes, including fundamental aqueous speciation of heavy metals and radionuclides as well as pollution characterization and remediation at field sites.



/web/2020/10-200609-5b





#### Tongji Professors won National Innovation Prizes

(Tongji University, June 23, 2020)

The award ceremony of the Second National Innovation Prize jointly organized by the Ministry of Human Resources and Social Security was held on May 30. Three professors from Tongji University appeared on the prize list: WU Zhiqiang, professor of the College of Architecture and Urban Planning, Tonjgi University who is an academician of Chinese Academy of Engineering; JIAGN Changjun, professor of College of Electronic and Information Engineering, Tongji University, a chief scientist of the National Program on



Key Basic Research Project (973 Program)whose research is supported by the National Science Fund for Distinguished Young Scholars, and WANG Tao, executive vice director of the Institute of Disaster Medicine and of the Department of Emergency Medicine from shanghai East Hospital, Tongji University. /web/2020/10-200623-07

### Upcoming Science and Technology Related Events

[webinar] Digital Architectonics: A Symbiosis of Bricks and Bytes

July 14, 2020 https://is.gd/cZKzdq Architecture, Digital Technologies Shanghai, Switzerland

Café des Sciences: Connected, naturally

July 16, 2020
<a href="https://is.gd/GO3uMC">https://is.gd/GO3uMC</a>
Sustainability Research, Ecovillage Practice Chengdu

Full Day Visit to Changshu CEDZ, Novartis, EFTEC and Hörmann

July 17, 2020 https://is.gd/DxaL1c HealthTech, Automotive Shanghai

Data Intelligence World Forum (DIWF)

August 20, 2020 https://is.gd/7MX5QZ Big Data & Al Shanghai

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