



Press Review Taiwan
Science, Technology and Education



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## Science

### **Taiwan climate change data project unveils latest results (Taiwan Today, 07.09.2016)**

The second round of results from aircraft and ship-based monitoring of greenhouse gas levels above the Pacific Ocean under a Taiwan-initiated research project was announced September 6<sup>th</sup> by National Central University in northern Taiwan's Taoyuan City, indicating a sustained rise in carbon dioxide levels. According to the latest PGGM results, atmospheric CO<sub>2</sub> concentrations over the middle of the Pacific Ocean have exceeded 400 parts per million, far surpassing the global preindustrial value of 280 ppm. The data indicate the levels are rising by more than 1.5 ppm per year.

### **Taiwan effort to combat Zika shines on international stage (Taiwan Today, 08.09.2016)**

A Taiwan team's efforts to combat the Zika virus have been realized in a device designed to provide timely point-of-care analysis that will significantly contribute to the battle against contagious diseases. The device, dubbed BluBox and characterized by its capacity to analyze blood for the presence of the Zika virus in roughly 10 minutes, is the result of collaboration between the National Taiwan University Germination Program and Technical University of Denmark. It was honored in August by the U.S. Agency for International Development as part of its Combating Zika and Future Threats: A Grand Challenge for Development initiative.

### **Academia Sinica joins U.S.-led cancer prevention project (Focus Taiwan, 21.09.2016)**

Academia Sinica, Taiwan's top research institution, said September 21st that it has joined a U.S.-initiated project that seeks cooperation among several countries in an effort to promote cancer prevention and control. Describing Academia Sinica as having leading proteogenomics technology, Chen Yu-ju, head of Academia Sinica's Institute of Chemistry, said that "this cooperation shows that Taiwan's proteogenomics technology has won international recognition and will help promote Taiwan's visibility in the area of academic research."

### **CRISPR/Cas9 gene-editing will be used in human embryos: Doudna (Focus Taiwan, 24.09.2016)**

U.S. geneticist Jennifer Doudna, one of this year's three recipients of the Tang Prize in biopharmaceutical science, said on September 24<sup>th</sup> that public education on the gene-editing technology she is being honored for is needed, especially when considering its use in human embryos. In response to questions about the use of the CRISPR-Cas9 method in human embryos to create children with certain desired features, she said scientists and the media should help the public learn more about the application of the technology. She believed that the technology will be used in human embryos "sooner or later" and noted that it had already been employed in human embryos in a research setting in several countries.

### **Biopharmaceutical science Tang Prize winners thank others in field (Focus Taiwan, 25.09.2016)**

The three laureates of the 2016 Tang Prize in biopharmaceutical science said on September 25<sup>th</sup> the award recognizes not only their personal endeavors but the work of many others in life sciences. The prize was jointly awarded to Emmanuelle Charpentier, Jennifer Doudna and Feng Zhang for the development of a breakthrough CRISPR/Cas9 genome-editing platform that promises to revolutionize biomedical research and disease treatment. "This prize honors the work that has been done by so many to understand fundamental biology and explore where nature can take us and in this case, it took us clearly in a very, very interesting and very unexpected direction" said Doudna.

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## Education

### **International poetry festival promotes literary exchanges (Taiwan Today, 06.09.2016)**

The 2016 Formosa International Poetry Festival is underway in New Taipei City's Tamsui District, bringing together more than 30 poets from countries and territories including Bangladesh, Colombia, Iraq and Japan with the goal of building a cultural bridge between Taiwan and the world through literary exchanges. Staged September 1<sup>st</sup> to 20<sup>th</sup>, the second annual FIPF features an array of activities such as book launches, exhibitions of classic and contemporary publications, poetry readings and seminars.

### **Education Ministry forges deeper relationship with SE Asia (China Post, 10.09.2016)**

The Education Ministry, a participant in the Tsai administration's "New Southbound Policy," is working to build a deeper connection with Southeast Asia through student exchange programs, vocational courses and internships, and academic partnerships. The office was charged with cultivating a deeper, stronger and more critical relationship with countries in the Southeast Asia.

**More than 18,000 students join overseas internship program (China Post, 10.09.2016)**

More than 18,000 students have participated in overseas internship programs since the Education Ministry set up the project in 2007. In line with the Tsai administration's "New Southbound Policy," which eyes stronger ties with Southeast Asian countries, the Education Ministry will seek to open more opportunities for students interested in traveling to the Southeast Asia.

**Foreigners learn Mandarin at Mid-Autumn Festival-inspired event (Taiwan Today, 12.09.2016)**

The Full Moon Mandarin Connection, an event co-organized by the Ministry of Education and National Sun Yat-sen University to help foreigners learn Mandarin through sightseeing, games and cultural exploration, took place in southern Taiwan's Kaohsiung City September 11<sup>th</sup>, four days ahead of this year's Mid-Autumn Festival. Teachers from the Chinese Language Center of NSYSU spoke in Mandarin to around 100 participating foreigners from 14 countries as they explored Moon World, a scenic area known for its moonscape in Kaohsiung's Tianliao District.

**Government donates to PIF's scholarship fund (China Post 20.09.2016)**

The Taiwanese government donated US\$500,000 to the Pacific Islands Forum (PIF) in Fiji Monday to fund a joint scholarship program for higher education for citizens in the region. The new fund to the Taiwan/Republic of China-PIF Scholarship is an example of Taiwan's partnership with the region, where Taiwan has provided aid, said Taiwan's representative to Fiji, Jeffrey Kau. He also said at the donation ceremony in Fiji that Taiwan has offered assistance through agricultural, medical and development projects to countries in the Pacific for many years and has seen positive results.

**Yu Hsi honored for uniting cultures through poetry (Taiwan Today, 20.09.2016)**

Taiwan poet Yu Hsi was honored by the Czech Republic government Sept. 16 at the 36th World Congress of Poets in Prague for his commitment to fostering cultural exchanges between his homeland and the Eastern European country. At the six-day congress in the Czech capital, the 65-year-old poet also signed memorandums of understanding on facilitating cultural exchanges between the Crane Summit 21st Century International Forum, which he established in 2004, and three Czech Republic-based organizations, namely the Forum 2000 Foundation, Franz Kafka Society and Czech Centre of International PEN Club.

**Tang Prize Week to kick off in Taipei (Focus Taiwan, 20.09.2016)**

The long-planned Tang Prize Week will kick off in Taipei September 22<sup>nd</sup> to welcome visits by this year's Tang Prize laureates and honor their achievements. Set to run through September 28<sup>th</sup>, the event will feature a diverse lineup of activities, including a welcome reception scheduled for September 22<sup>nd</sup> at the National Palace Museum and an award ceremony September 25<sup>th</sup> at the Sun Yat-sen Memorial Hall, the Tang Prize Foundation said on September 20<sup>th</sup>. It will also hold a concert at the National Concert Hall on September 26<sup>th</sup> and throw lectures by several award winners, the organizer said.

**MOE seeks to entice more foreign students of Mandarin (Taiwan Today, 21.09.2016)**

The Office of Global Mandarin Education was inaugurated September 20<sup>th</sup> in Taipei City, marking a significant step in government efforts to build Taiwan into the leading destination for learning the language. Established by the Ministry of Education and operated from the campus of National Taiwan Normal University, the office is part of an eight-year project implemented since 2013 to enhance and promote the nation's Mandarin learning environment through such measures as training instructors, developing text and digital teaching materials and establishing the Chinese Linguipedia language database.

**Visiting U.S. scientist urges young to 'ask the right questions' (Focus Taiwan, 24.09.2016)**

A visiting U.S. scientist on September 24<sup>th</sup> encouraged young people in Taiwan to ask the right questions and gain knowledge in multiple disciplines to tackle modern-day challenges in the field of sustainable development. He said mankind's problems today can no longer be addressed within a single discipline. Today's problems require an understanding of various disciplines, including economics, social behavior, science, law and policy, said Gadgil, who is in Taiwan to receive the Tang Prize in sustainable development on behalf of American energy expert Arthur H. Rosenfeld.

**Tang Prize winner De Bary lauded as cultural bridge-builder (China Post, 26.09.2016)**

A blond-haired, blue-eyed American who set out to become a bridge-builder between East and West through an academic career as a Sinologist has become a cornerstone of the bridge itself, a leading Columbia University academic said in Taipei on September 24<sup>th</sup>. Rachel E. Chung, associate director of the University's Committee and Asia and the Middle East, said, William Theodore de Bary, did not assume the boundaries of Sinology either as a



regional area or an academic discipline, and it is this legacy and she urged the next generation of "the de Bary school" at Columbia University, Taiwan and all over the world to carry on.

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## Technology

### **Cyberattacks on rise since Tsai election (China Post, 05.09.2016)**

The National Security Bureau's (NSB) website has been hit by a rising number of cyberattacks since the election of President Tsai Ing wen in January, according to a recent report. The NSB's website has been the target of 17,659 rounds of cyberattacks over the first half of 2016, the NSB said in a report included as part of its 2017 budget proposal. The latest statistics represent an average of 12 cyberattacks per day, with the figures for January to June having almost surpassed the yearly total of 19,826 attacks for 2015. NSB sources told the Chinese-language Apple Daily that the majority of attacks were believed to have originated from China.

### **Google connects Taiwan to FASTER undersea cable (Focus Taiwan, 06.09.2016)**

Google Inc. announced September 6<sup>th</sup> that an extended section of its FASTER submarine cable to Taiwan has been put into service, boosting the speed of data transmission in and out of the country and the computing power of its largest data center in Asia. The cable connects Taiwan and Japan and is an extended section of the trans-Pacific cable linking to the United States. It said the cable connecting Taiwan offers speeds of up to 26 terabits per second (Tbps) and will improve the computing power of Google's data center in central Taiwan's Changhua County -- the company's largest center in Asia.

### **Taiwan High Speed Rail wins Asia-Pacific smart transport award (Taiwan Today, 07.09.2016)**

Taiwan High Speed Rail Corp. was named winner Sept. 6 of the prestigious Asia-Pacific Industry Award for its smart systems, reflecting the quality and strength of the local intelligent services sector. THSRC won for its disaster warning, passenger service and ticketing systems, as well as its provision of integrated i-traveling information for passengers.

### **New variant of ASUS flagship ZenFone 3 Deluxe hits Taiwan market (Focus Taiwan, 07.09.2016)**

Taiwan-based PC vendor Asustek Computer Inc. said September 7<sup>th</sup> that the latest variant of the recently introduced flagship ZenFone 3 Deluxe smartphone has hit the market in Taiwan, which is the first country in the world where the product has become available. The model is also the world's first smartphone with an aluminum alloy unibody featuring an invisible antenna design. According to the company's website the latest model is priced at NT\$24,990 (US\$800).

### **Hualien's new electric buses jolt into action (Taiwan Today, 09.09.2016)**

A fleet of seven new electric buses has begun operating in eastern Taiwan's Hualien County, promoting a healthy environment and helping ensure a quality tourism environment, the Hualien County Government announced September 7<sup>th</sup>. Three more new buses are expected to be added to the fleet before the year's end and will operate on Route 302 between Xincheng Station in Xincheng Township and Tianxiang in Taroko National Park. "The introduction of all-electric buses will provide residents and tourists with a quieter and smoother ride, while supporting our low-emission strategies aimed at safeguarding our beautiful and clean environment," said Lee Kuo-yun, an official of the Hualien Economic Affairs Department under the county government. "We intend to add electric buses to additional popular tourist routes so as to enhance the passenger experience."

### **Acer founder proposes approach for smart city development (Focus Taiwan, 12.09.2016)**

Acer Inc. founder Stan Shih proposed on September 12<sup>th</sup> that Taiwan should promote the development of smart cities through a public-private-people partnership cooperation mechanism. Based on its advanced information and communications technology (ICT), as well as software and service architecture, Taiwan is on a more advantageous footing than many other countries for developing smart cities, according to Shih.

### **ITRI's technology for safe li-ion batteries used in Sharp robot (Focus Taiwan, 14.09.2016)**

The Industrial Technology Research Institute (ITRI) said September 14<sup>th</sup> that its technology for preventing the explosion of lithium-ion batteries has been adopted by a Taiwanese company that has built a battery exclusively for Sharp's home surveillance robot. The ITRI's STOBA® technology-based battery module is making its debut at the annual seminar and exhibits of the ASIS International that is being held in Orlando, Florida September 12<sup>th</sup> to 15<sup>th</sup>.

### **HTC working with Japanese game supplier to promote Vive in Tokyo (China Post, 15.09.2016)**

Taiwan-based smartphone brand HTC Corp. is working with Japanese game software supplier Bandai Namco Entertainment Inc. to promote its first virtual reality headset, the HTC Vive, in Tokyo. In partnership with Bandai Namco, HTC has set up five VR zones in Tokyo featuring large arcades that give visitors the opportunity to





experience the fun of Vive by trying such programs as skiing, operating a train and fighting zombies at an abandoned hospital.

#### **Survey underscores shift to mobile devices in Taiwan (Focus Taiwan, 16.09.2016)**

Almost 60 percent of smartphone users tend to watch videos on their phones rather than on TV, an indication of the threat mobile devices are posing to TV station operators, a survey has found. Citing the findings of the Institute for Information Industry (III) survey, released on September 16<sup>th</sup>, III research arm Foreseeing Innovative New Digiservices (FIND) said 58 percent of respondents said they watched entertainment videos such as TV dramas, variety shows and music videos on their phones instead of TV.

#### **Hackers to faceoff in Taiwan in October (Focus Taiwan, 17.09.2016)**

Hackers around the world are scheduled to compete in one of the biggest online hacking wargames in Asia at the Hacks In Taiwan Conference (HITCON) in early October, to challenge information security with the hope they will help security experts make systems safer. The 12th HITCON Capture The Flag (HITCON CTF), a preliminary marathon-style online wargame, is scheduled to be held October 8<sup>th</sup> to 9<sup>th</sup>.

#### **Taiwan Photon Source opened (Focus Taiwan, 19.09.2016)**

President Tsai Ing-wen attended the inauguration of Taiwan Photon Source (TPS) and its multidisciplinary experimental facilities at the National Synchrotron Radiation Research Center (NSRRC) in Hsinchu on September 19<sup>th</sup>. While visiting the facility, which had been under construction for more than six years, Tsai expressed the hope of seeing more Taiwanese researchers conduct advanced research as did Nobel laureate Lee Yuan-tseh, who accompanied her at the ceremony. NSRRC Director Shang-jir Gwo said the TPS has great potential and can be applied to research in a wide range of areas, including designing target drugs for cancer, unraveling virus infection mechanisms and developing green energy.

#### **ITRI develops new breast cancer screening device (Taiwan Today, 19.09.2016)**

The government-supported Industrial Technology Research Institute has unveiled a revolutionary 3-D ultrasound machine designed to make breast cancer screening faster and easier than ever before. Developed in cooperation with EpiSonica Technology, based in northern Taiwan's Hsinchu City, using domestic information and communications technology equipment, the machine can render a complete 3-D image within one minute. According to the institute, global demand for such ultrasound technology is estimated to reach NT\$12 billion (US\$370 million) before the end of the year.

#### **Alliance for 3-D printing takes shape (China Post, 20.09.2016)**

A 3-D printing alliance was formed in Taiwan on September 19<sup>th</sup> in a bid to explore the booming technology and stake a larger share of the global market, the government-sponsored Industrial Technology Research Institute (ITRI) said. The ITRI pushed for the alliance by organizing several local 3-D-related technology development groups, to cover the upstream, midstream and downstream segments of the arena. The ITRI said that the alliance is expected to bring the technology to a wide range of applications, such musical instrument production, auto parts manufacturing, artificial limb development and lighting device production, to seize the growing business opportunities.

#### **US telecom giant Sprint picks MediaTek chips for new smartphone (China Post, 21.09.2016)**

TAIPEI--U.S.-based telecom operator Sprint has adopted chips supplied by Taiwanese IC designer MediaTek Inc. in a new smartphone-the LG X power T- for the Sprint network, a move analysts said can help the company gain a foothold in the North American market. The Taiwanese IC designer said the first MediaTek-enabled smartphone for Sprint was launched Monday, breaking new ground for MediaTek in the U.S. It was the first time MediaTek had sold one of its premium chipsets to a major U.S. carrier network.

#### **Ransomware attacks increasing in Taiwan: Trend Micro (Focus Taiwan, 21.09.2016)**

Trend Micro Inc. leading global software security company, said on September 21<sup>st</sup> that ransomware attacks have been escalating in Taiwan, registering 2 million over the past six months. On average, there is a ransomware attack every eight seconds in Taiwan, with 40 percent targeting personal computers, said Bob Hung, general manager of Trend Micro's Taiwan & Hong Kong Business Unit. That is the second highest attack rate in Asia-Pacific region, after Japan, he said.

#### **Taiwan, U.S. to cooperate on development of 5G standards (Focus Taiwan, 29.09.2016)**

Telecommunications standards development associations from the United States and Taiwan signed a letter of intent Thursday in Taipei to jointly develop standards for technologies in the areas of fifth generation (5G) mobile



telecom networks, Internet of Things (IoT) and Intelligent Transport Systems (ITS). The cooperation agreement was signed by the Taiwan Association of Information and Communication Standards (TAICS) and the U.S.-based Telecommunications Industry Association (TIA).

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