



腾冲科学家论坛  
TENGCHONG SCIENTISTS FORUM  
科技引领未来

SCIENCE · GENERAL HEALTH  
2022 • TENGCHONG SCIENTIST FORUM

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TENGCHONG · CHINA  
DECEMBER, 2022

International  
Programs



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# General Plan for Tengchong Scientist Forum 2022

To put the guiding principles from the 20th National Congress into action, fully implement the key points regarding technology innovation and in the speech delivered by President Xi Jinping during his visit to Yunnan, gather global resources for technical innovation, promote technical exchanges and cooperation between the eastern and the western regions of China, support Yunnan in building a national technical innovation center connecting South and Southeast Asia, serve the technology sector, and empower quality development, the People's Government of Yunnan Province and China Association for Science and Technology (CAST) will hold Tengchong Scientist Forum 2022 in Tengchong, Yunnan from December 1 to 3, 2022. This plan has been developed to guide the preparation works.

## **I. Positioning of the forum**

Holding an international vision, aiming to meet the national demands, following the principle that "science and technology is the primary productive force, talents are the most valuable resource, and innovation is the strongest drive", taking "leading the future with technology" as the mission, and promoting the scientific and scientist spirits, platforms will be built for exchanging advanced academic ideas, interaction among the government, industries and educational institutions, commercialization of technologies, and cooperation between China and countries in South and Southeast Asia, and create a featured high-end "technology Davos forum" that has an international influence.

## **II. Significance of the forum**

(I) It will help to accelerate the development of an international technology innovation community. With global high-end intellectual resources, oriented to the frontier of technology in the world, the economic competition, major national demands, and people's health, an international platform for technology innovation and cooperation will be established as a source of new ideas, to deepend exchanges and cooperation in technology across the world, respond to global challenges, and contribute Chinese wisdom to the development of the community with a shares future for mankind.

(II) It will help to accelerate the development of a national technology innovation center connecting South and Southeast Asia. Cooperation with countries in South and Southeast Asia in open scientific research, science parks, technology transfer and commercialization, technical and cultural exchanges, etc. will be promoted, a carrier for spreading of new technologies will be incubated, and a pattern of innovation cooperation will be formed that features a common development concept, smooth flow of key resources, connected technical



facilities, and an integrated innovation chain, to serve diplomacy and the Belt and Road Initiative of China.

(III) It will help to promote the development of a platform for technical exchanges between the east and the west. The possibility of establishing a permanent site for high-end technical forums firstly in the central and western regions will be studied, mechanisms in various forms for linkage and partnership between the east and the west and platforms for exchanges, cooperation and technology transfer and commercialization will be established, innovative and entrepreneurial talents and teams at high levels will be introduced, and a high-end technical think tank and a talent supporting system will be built, to accelerate the development of a future-oriented technology innovation system and a modern industrial system, and allow science and technology to empower quality development.

(IV) It will help to drive quality industrial development. Through continued forums, focusing on the new technology demand for accelerating the development of the province by industrial development, centering on fields such as new energy, biopharmacy, quality genes, advanced manufacturing, new materials, digital economy, modern equipment manufacturing, prevention and treatment of critical diseases, etc., high-end talents will be attracted, and featured industries will cluster here, so that academician and expert teams, high-level technical findings and high-tech companies will root in Yunnan.

### III. Theme

Purpose: leading the future with technology;

Theme in 2022: science · health

### IV. Sessions

The 2022 forum will have “1+10+N” sessions. “1” is the opening ceremony and the keynote forum. “10” are the parallel sessions, including a presidents forum, a forum on post-pandemic health industry innovation, a forum on the innovation of medical materials and industrial technical innovation, a forum on biodiversity and green development, a forum on international frontier sciences, a forum on technical and cultural exchanges in the Lancang-Mekong Region, a seminar on the biological consequences of global change (BCGC), a forum on innovative development of green food and bio-manufacturing, a forum on the development of the hot spring healthy industry, and an entrepreneur innovation forum. “N” means a series of supporting activities, including the series of “Innovation China”, a round table of Chinese and ASEAN engineers, an academician lecture, a tour of young scientists from Hong Kong, Macau and Taiwan around Tengchong, an IASP China member salon and conference on the development of Chinese parks and technology companies, a young scientist salon on healthy China and the outlook of future sciences, 2022 TusStar DEMO DAY, project promotion and cooperation consultation, field visit, etc.

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## LM Forum on Exchanges in Science, Technology and Culture

President Xi Jinping pointed out that people ties are an important task in the development of the Belt and Road Initiative and a critical foundation. The Lancang-Mekong Cooperation, as the first new mechanism of sub-regional cooperation jointly developed by the six countries along the river, is an important platform for coordinated efforts in exchanges and the development of the Belt and Road Initiative. For continuous and in-depth exchanges in science, technology and culture in the LM Region, exchanges and cooperation in scientific and technological innovation among countries in the LM Region should be deepened, scientists should be given full play in the exchanges in science, technology and culture, and efforts should be made to train foreign scientists that know China and are friendly to China, to consolidate and expand China's circle of friends in scientific and technological innovation, continuously level up exchanges in science, technology and culture. We will take the initiative to share China's experience in science and technology governance, to help participant countries improve their skills in science and technology governance in response to global challenges, improve the well-being of the people, and continuously meet the demands of the participant countries on people's well-being and technology. Efforts will be made to form joint force in science and technology innovation for the development of the Belt and Road Initiative. China Association for Science and Technology now joins hands with the People's Government of Yunnan Province to hold the LM Forum on Exchanges in Science, Technology and Culture during 2022 China Tengchong Scientist Forum. The specific plan is detailed below.

### **I. Theme**

Topic: Common origin of medicine for a shared healthy future in LM region

### **II. Organizational structure**

Sponsors: China Association for Science and Technology and the People's Government of Yunnan Province

Organizers: China Association of Chinese Medicine and CAST New Technology Center

Organizing committee

Chairpersons: Huang Luqi, academician, Deputy Director of National Administration of Traditional Chinese Medicine

Zhu Zhaoyun, academician, TCM R&D Director of Yunnan Baiyao Group

### III. Agenda

November 30 (Wednesday)		
Whole day	Checking in at Tengchong Guanfang Hotel (representatives participating offline in China)	
18:30-20:00	<b>Welcome banquet</b>	
December 1 (Thursday) Chunqiu Hall, Guanfang Hotel		
14:00-14:30	<b>Opening ceremony</b> Host: <b>Cao Zhengkui</b> , Chairman of the Board of Supervisors of China Association of Chinese Medicine	
14:00-14:10	<b>Welcome speech from Yunnan provincial government</b>	
14:10-14:20	<b>Speech from the leadership of the National Administration of Traditional Chinese Medicine</b>	
14:20-14:30	<b>Speech from CAST leadership</b>	
14:30-14:40	<b>Speech from Consul-General of the Consulate General of the Lao People's Democratic Republic in Kunming</b>	<b>Daopphet CHANTHANASINH</b>
14:40-14:50	<b>Signing ceremony</b> Presentation of the achievements in the development of the Overseas Center of Chinese Medicine of Yunnan University of Chinese Medicine	
14:50-15:50	<b>Keynote reports</b> Host: <b>Ding Zhongtao</b> , Deputy Secretary of CPC, President of Yunnan University of Chinese Medicine	
14:50-15:10	Keynote report 1: <b>Ecological Civilization and Natural Medicine</b>	Prof. <b>Zhu Zhaoyun</b> Academician of the Chinese Academy of Engineering
15:10-15:30	Keynote report 2: <b>Invigorating the Treasure of Ancient Science in TCM to Contribute More to Human Health</b> (online)	Prof. <b>Liu Baoyan</b> President of World Federation of Acupuncture-Moxibustion Societies (WFAS)
15:30-15:50	Keynote report 3: <b>Value and Role of Development of Traditional Medicine Culture in Sanitation and Health of LM Region</b> (online)	<b>Thongsavahn SENGKONGDALA</b> Vice President of the Institute of Traditional Medicine of Laos
15:50-16:00	Break	



16:00-17:40	<b>Exchange in the development of the wide concept of health in LM Region</b> Host: <b>Ge Yuanjing</b> , Vice President and Secretary General of Yunnan Provincial Association of the Traditional Chinese Medicine	
16:00-16:20	Topic 1: <b>Mechanism for Exchange Meetings of Traditional Medicine in Countries on Mekong River</b>	Prof. <b>Zheng Jin</b> Vice President of China Association of Chinese Medicine, Honorary President of Yunnan Association of Ethnic and Civil Medicine, President of the Committee of Academic Exchange Conference on Traditional Medicine in Countries in the Greater Mekong Sub-region
16:20-16:40	Topic 2: <b>Overview of Development of Chinese Medicine in Thailand</b> (online)	Mr. <b>Chen Shao Ting</b> President of Made by The Chinese Medical Association of Thailand
16:40-17:00	Topic 3: <b>How to Effectively Train Talents in Traditional Medicine in LM Region</b> (online)	Dr. <b>KYI KYI OO</b> Deputy Director of Research & Development Office, Department of Traditional Medicine, Ministry of Health, Myanmar
17:00-17:20	Topic 4: <b>Aromatherapy in TCM and Practical Application Thereof</b>	Prof. <b>Xiong Lei</b> Vice President of Pediatric Branch of World Federation of Chinese Medicine Societies
17:20-17:40	Topic 5: <b>Innovative Development of TCM and Herbology</b>	Mr. <b>Dong Xun</b> Director of Yunnan Institute of Pharmaceutical Sciences, General Manager of Strategic Development Institute of Yunnan Baiyao Group
<b>December 2 (Friday)</b>		
	<b>Field visit</b>	



## Introduction of Guests



### Zhu Zhaoyun

female, full senior engineer, academician of the Chinese Academy of Engineering. She is now serving as the Chinese medicine research and development director of Yunnan Baiyao Group, and the director of the National and Local Joint Engineering Research Center for Development of New Products of Southwest Ethnic Medicine. She has led the team to carry out resource survey and research, identify 4,392 drugs, and edit 6 monographs in 22 volumes and 11.91 million words, which have been widely applied. She explored the ethnic drug resources, and has invented and created 5 national new drugs which have been successfully launched to the market. She has established 5 nationally certified platforms and their teams. She was awarded the first prize of 2012 National Science and Technology Progress as the first contributor, Prize of Science and Technology Innovation of the Ho Leung Ho Lee Foundation, Prize of Outstanding Contribution to National Chinese Medicine, etc.



### Liu Baoyan

chief physician/professor

President of World Federation of Acupuncture-Moxibustion Societies (WFAS)

President of China Association for Acupuncture and Moxibustion

Principal researcher of China Academy of Chinese Medical Sciences

Academician of Eurasian Academy of Sciences

Traditional medicine consultant of World Health Organization

Director of the National Technical Committee of Standardization of Acupuncture and Moxibustion

Director of the Key Research Office of Clinical Evaluation Methods of the National Administration of Traditional Chinese Medicine



### Cao Zhengkui

chief physician, chief supervisor, former vice president and secretary-general of China Association of Chinese Medicine, member of the Academic Committee of the Academy of Strategy of China Association for Science and Technology, consultant of the Chinese Medicine Branch of the Standardization Administration



of the People's Republic of China, chief editor of the Journal of Traditional Chinese Medicine Management of National Administration of Traditional Chinese Medicine.



### **Zheng Jin**

Professor, doctoral candidate supervisor, and the sixth batch of instructors for national traditional Chinese medicine academic experience inheritance work. Zheng Jin is vice president of China Association of Chinese Medicine, president of Yunnan Provincial Association of the Traditional Chinese Medicine, academic leader of provincial key discipline "Ethnomedicine" of Yunnan province, and academic leader of key discipline "Dai Medicine" of the National Administration of Traditional Chinese Medicine.



### **Ding Zhongtao**

Doctor, second-grade professor, doctoral supervisor, and "Yunling Scholar". Deputy Secretary of CPC, President of Yunnan University of Chinese Medicine, adjunct vice chairman of Yunnan Association for Science and Technology, and vice president of Quality Education Branch of China Association of Higher Education.



### **Xiong Lei**

Former president of Yunnan University of Chinese Medicine, Qihuang Scholar, chairman of the Pediatrics Branch of China Association of Chinese Medicine, expert entitled to Special Government Allowance from the State Council, young expert in outstanding contribution to national health and family planning, member of the National Ancient Classic Prescription and Chinese Medicine Compound Preparation Expert Evaluation Committee, academic and discipline leader of key discipline "Chinese Medicine Pediatrics" of the National Administration of Traditional Chinese Medicine, leading talent of Chinese medicine in Yunnan province, etc.



### **THONGSAVANH SENGKONGDALA**

Laotian, doctor. He graduated from Guangzhou University of Chinese Medicine in June 2007, majoring in Internal Medicine of Chinese Medicine with a PhD in Clinical Medicine, and researching in the direction of treatment of digestive system diseases with Chinese medicine. He began working at the Laos Ministry of Health in October 2007, successively served as physician-in-charge in the Traditional Medicine Hospital of the Laos Ministry of Health, deputy director of the Traditional Medicine Administration of the Medical and Rehabilitation Department of the Laos Ministry of Health, and director of the Office of the Practicing Physician Management Committee of Laos. He is now serving as vice president of the Institute of Traditional Medicine of the Laos Ministry of Health, mainly engaged in the management, research and clinical medical services of traditional medicine and alternative medicine of Laos. He is member of the Laos Association for Protection of Traditional Medicine, and member of the Professional Committee of Traditional Medicine and Alternative Medicine of Health Science University of Laos Ministry of Health, and is mainly responsible for teaching the Chinese medicine courses.



### **Chen Shao Ting**

President of the Federation of Chinese Medicine Societies of Thailand, licensed Chinese medicine practitioner in Thailand



### **Dr. KYI KYI OO**

Qualification : Dip. T. Med., BSc., MSc., PhD (Botany)

Occupation : Deputy Director (Research)

Department : Research & Development Division,  
Department of Traditional Medicine,  
Ministry of Health, MYANMAR



### Zhang Chao

Second-grade professor of Yunnan University of Chinese Medicine, chief physician, doctoral candidate supervisor, famous Chinese medicine doctor in Yunnan province, and the sixth batch of instructors for national traditional Chinese medicine expert academic inheritance work. He has been engaged in clinical practice, scientific research and teaching of Chinese medicine for more than 30 years, and has been successively awarded one first prize and one second prize of Science and Technology Progress of Yunnan Province and two first prizes of Teaching Achievements of Yunnan Province. He has edited 15 academic monographs and textbooks, and published more than 80 academic papers.



### Ge Yuanjing

Male, born in 1962, Han ethnicity, chief physician and professor. He is vice president and secretary-general of Yunnan Provincial Association of the Traditional Chinese Medicine, Association of Integrative Medicine and Association of Acupuncture and Moxibustion, chairman of Yunnan Provincial Society for Academic Research, and is also director of China Association of Chinese Medicine, standing director of Chinese Association of Integrative Medicine, etc. In addition, he is a member of the Traditional Chinese Medicine Inheritance and Development Expert Advisory Committee of Yunnan Provincial Administration of Traditional Chinese Medicine. He has long been committed to the clinical practice, management and academic exchange of Chinese medicine and the scientific popularization of Chinese medicine culture, and he is a well-known expert in the field of Chinese medicine in Yunnan province.



### Dong Xun

Male, senior engineer and licensed pharmacist, has successively served as Project Manager of the Corporate Development Department, Assistant to the General Manager (Technology), Vice President of Sales of the Raw Medicinal Materials Division, Deputy Director of the Corporate Development Department, and Director of the Strategic Committee Office of Yunnan Baiyao Group Co., Ltd. Currently, he is the General Manager of the Strategic Development Institute of Yunnan Baiyao Group, Secretary of the Party Committee and Director of Yunnan Institute

of Pharmaceutical Sciences, a member of the 9th Standing Committee of Yunnan Association for Science and Technology, and Director of SinoMab BioScience Limited (HK3681), invested by Yunnan Baiyao Group as the cornerstone investor.

He has been involved in 5 new drug development projects, and has successfully applied for more than 20 projects for the Group with government authorities, from which the company has obtained funds over RMB 100 million in total; he has accumulatively organized and managed 4 R&D teams, 2 sales teams, and 10 project management teams, and all have achieved good results. He has been engaged in the research and development of new drugs for more than 20 years, and has gained rich experience in various fields including research management, sales management, BD, pharmacoeconomics, etc.



### **Yan Zheng**

Director and associate researcher of the International Exchange Department of China Association of Chinese Medicine



### **Zhang Huaiming**

With on-the-job postgraduate degree, chief physician of integrative medicine, and "Special Guidance Expert for Management Mode and Application of Services of Preventive Treatment of Diseases by Chinese Medicine" of 2014-2015 China-WHO cooperation project. He successively served as vice president of the Municipal Health School, secretary of the Party Committee of the third-class general hospital, deputy secretary of the Municipal Party Committee, and chairman of the Municipal Association for Science and Technology, and is now serving as chairman of the Consortium of China Association of Chinese Medicine and Chinese Medicine Clinic, deputy secretary-general of the Integrated Innovation Consortium of China Association for Science and Technology, and member of the Expert Committee of Medical Research Center of Tsinghua University. He successively published the *Warnings of Diabetes*, *Regulation of Mental Activities for Health*, *Yoga Dream*, *Wall Chart of Chinese Medicine Health Guide*, *Use of Drugs is Like Use of Military Forces* and other works.



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## Sun Yonglin

Male, director of Office of International Cooperation and Exchange, dean of College of International Education, and dean of Lancang River-Mekong River College of Traditional Medicine, Yunnan University of Chinese Medicine. He has long been engaged in foreign cooperation, exchange and communication of Chinese medicine, international exchange of traditional medicine in Lancang-Mekong region, foreign service and trade of Chinese medicine, research of southern medicine and other related work. He has edited and participated in the translation and annotation of more than 20 bilingual monographs and textbooks related to Chinese medicine published at all levels.



## About China Association of Chinese Medicine

Founded in May 1979 under the leadership and with the support of the former Ministry of Health, China Association of Chinese Medicine (“the Association” hereinafter) is the earliest and largest national academic group in Chinese medicine in China, which operates under the professional guidance and supervision of China Association for Science and Technology (CAST) and the Ministry of Civil Affairs as the registration. The Secretariat of the Association is a council level organization directly subordinate to the National Administration of Traditional Chinese Medicine. As an important social force that promotes the development of Chinese medicine, the Association acts as a bridge and bond between the Communist Party of China and the government on the one hand and practitioners in the science of Chinese medicine on the other, a direct recommending organization for the national science and technology awards, and the Secretariat of the National Technical Committee on Standardization of Chinese Medicine.

Since its inception, the Association has closely followed the leadership of the Party group of CAST to develop the Association by Party development, taking academic development as its major task, with a focus on its main responsibilities and main business, as well as a vigorous academic atmosphere. Currently, the Association has 92 branches and publishes 85 periodicals. The Association also coordinates and guides the work of associations of Chinese medicine in different provinces, autonomous regions, municipalities directly under the central government and sub-provincial cities.

The Association has been successively honored as a “National Outstanding Social Organization” by the Ministry of Civil Affairs, “Model Organization” by the National Administration of Traditional Chinese Medicine, “Class I Outstanding Technical Group in Organization Innovation and Improvement of Service Capabilities 2015-2017”, “Supporting Organization for the Development of First-class Colleges and First-class Disciplines 2018–2020” and “Supporting Organization for the Development of First-class Associations with Chinese Characteristics 2021-2023” by CAST. In the “Results of Analysis and Assessment of Association Development” issued by CAST, the Association ranks 15 among the 210 associations subordinate to CAST and 3 among the 28 medical associations.



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## International Frontier Science Forum

With an international vision and “leading the future with technology” as its purpose, the International Frontier Science Forum amasses the high-end intellectual resources across the globe, targets the cutting-edge technologies in the world, keeps an eye on the innovation and development of international frontier sciences such as digital technology, discusses important issues in frontier science that need to be addresses urgently, shares the scientific concepts and innovative ideas in the process of achieving the sustainable development targets for 2030 set by the United Nations, and supports sustainable development actions in the region of the Association of Southeast Asian Nations and the world at large.

Through this forum, a platform will be built for international technology innovation, aiming to promote the development of an international technology innovation community, advance cooperation with ASEAN countries in open scientific research, science and technology parks, technology transfer and commercialization, technical and cultural exchanges, etc., provide a mechanism for China-ASEAN dialogue in science and technology, and respond to common challenges in global sustainable development.

### I. Theme

Theme: Frontier science supports sustainable development

### II. Organizational structure

Sponsor: China Committee of International Science Council (ISC-CHINA)

Organizers: Digital Belt and Road Program (DBAR)  
International Society for Digital Earth (ISDE)



### III. Agenda

<b>Morning, December 2, 2022</b> Chunqiu Hall, Guanfang Hotel		
Time	Activity	Guests
9:00-9:20	<b>Opening speech</b>	<b>Speech by the Leader</b>
9:20-9:35	Keynote speech 1: <b>Build a digital Belt and Road</b>	<b>Guo Huadong</b> Director of International Research Center of Big Data for Sustainable Development Goals, academician of the Chinese Academy of Sciences, and ISC-China President
9:35-9:50	Keynote speech 2: <b>Thirty Years of Pathogen Research</b>	<b>Rao Zihe</b> Former President of the International Union for Pure and Applied Biophysics, academician of the Chinese Academy of Sciences, Honorary President of the Biophysical Society of China, professor of the School of Medicine, Tsinghua University, and honorary member of ISC-China
9:50-10:05	Keynote speech 3: <b>Integrated Assessment of SDGs for Sustainable Urban Development</b>	<b>Vilas Nitivattananon</b> Dean of School of Environment, Resources and Development (SERD), Asian Institute of Technology
10:05-10:20	Keynote speech 4: <b>Develop New Materials for Energy Storage to Support National Energy Security</b>	<b>Han Yafang</b> Resigned President of International Union of Materials Research Societies (IUMRS 20-21), researcher of BAIMTEC Material, and Vice President of ISC-China
10:20-10:35	Keynote speech 5: <b>Big Steps of International Geological Congress 2024, Busan Korea for Sustainable Development</b>	Prof. <b>Daekyo Cheong</b> President of the Organizing Committee of the 37th International Geological Congress (2024), Vice President of International Union of Geological Sciences, former President of Geological Society of Korea, and professor of Kangwon National University
10:35-10:50	Keynote speech 6: <b>Data-Driven Earth Sciences Innovation for supporting SDGs</b>	<b>Cheng Qiuming</b> Academician of the Chinese Academy of Sciences, Past President of the International Union of Geological Sciences, professor of China University of Geosciences (Beijing), and Vice President of ISC-China
10:50-11:30	<b>Discussion and conclusion</b> Host: <b>Guo Huadong</b>	



## Introduction of Guests



### Guo Huadong

**Academician of Chinese Academy of Sciences  
Director General of International Research Center of Big Data for  
Sustainable Development Goals**

Guo Huadong is Director General of the International Research Center of Big Data for Sustainable Development Goals (CBAS), and a professor of Chinese Academy of Sciences (CAS) Aerospace Information Research Institute. He is an Academician of CAS, a Foreign Member of the Russian Academy of Sciences, a Foreign Member of the Finnish Society of Sciences and Letters, and a Fellow of the World Academy of Sciences (TWAS). He presently serves as Honorary President of the International Society for Digital Earth (ISDE), Director of the International Center on Space Technologies for Natural and Cultural Heritage under the Auspices of UNESCO, Member of the International Science Council (ISC) Global Commission on Science Missions for Sustainability, Chair of Digital Belt and Road Program (DBAR), and Editor-in-Chief of two scientific journals *International Journal of Digital Earth* and *Big Earth Data*. He served as Member of UN 10-Member Group to support the Technology Facilitation Mechanism for SDGs (2018-2021), Chairman of the International Committee of Remote Sensing of Environment (2017-2020), President of ISDE (2015-2019) and ICSU Committee on Data for Science and Technology (2010-2014). Prof. Guo specializes in remote sensing, radar for Earth observation, and Digital Earth science. He has published more than 500 papers and 24 books, and is the awardee of 19 international and domestic prizes.



### Zihe Rao

**Professor of Tsinghua University, Member of the Chinese Academy of  
Sciences**

Member of the American Academy of Arts and Sciences, Member of the Standing Committee of the CPPCC National Committee, Member of the Presidium of Academic Divisions of CAS, Honorary President of Biophysics Society of China, Founding President of China Union of Life Science Societies. He was president of Nankai University, Director-General of the Institute of Biophysics of CAS, and

President of International Biophysical Union (IUPAB).

He has revealed fundamental structure-function and mechanistic insights to the replication/transcription, assembly and host invasion of coronavirus, retrovirus, influenza virus, picornavirus, herpesvirus, Africa-Swine-Fever-virus and other disease-causing viruses, and uncovered how Mycobacterium tuberculosis achieves metabolite/energy transport and drug resistance. This has led to new therapeutic targets and innovative drug designs. To date, Zihe Rao has published more than 410 peer reviewed research papers, including 24 papers in Science, Nature and Cell, with over 28,000 citations (retrieved from Google Scholar). He also has 38 innovation patents.



### **Vilas Nitivattananon**

**Dean and professor of the School of Environment, Resources, and Development, Asian Institute of Technology (AIT)**



### **Yafang Han**

**resigned President of International Union of Materials Research Societies (IUMRS 20-21), and researcher of BAIMTEC Material**

Dr. Yafang Han is a professor of Beijing Institute of Aeronautical Materials; honorary professor of Shanghai University; Academician of Asian Pacific Materials Academy (APAM). She graduated with a B. S. from Shanghai Jiaotong University in 1967, M. S. and Ph. D. from University of Manitoba in 1982 and 1985. Dr. Yafang Han has conducted research and development on high temperature structural materials since 1970. She has been awarded the national innovation award for her excellent work on the development of intermetallic materials. Prof. Han has authored or co-authored over 160 papers in referred journals and conference proceeding and 5 books related to high temperature structural materials. She has been the editors for many academic journals: the editor-in-chief of the journal of "Progress in Natural Science:Materials International", associate editor-in-chief or editorial member of



8 academic journals, including Journal of Materials Science and Technology; Rare Metals; Acta Aeronautica & Astronautica Sinica; Acta Metallurgica Sinica; Chinese Journal of Nonferrous Metals; Materials China, etc.

Prof. Han has been served academic bodies, including C-MRS, IUMRS and ISC for more than 30 years. She has been EC members of International Union of Materials Research Societies(IUMRS) since 2008: president of 2019-2020, first vice president of 2017-2018, second vice president of 2024-2015, treasurer(2008-2011) and commission Chair(2008-). She has served for vice president, general secretary and standing council member of C-MRS for more than 30 years. Shi is vice president of International Science Council(ISC)-China since 2019.



### Daekyo Cheong

**President of the Organizing Committee of the 37th International Geological Congress (2024), Vice President of International Union of Geological Sciences, former President of Geological Society of Korea, and professor of Kangwon National University**



### Qiuming Cheng

**Academician of Chinese Academy of Sciences, foreign member of Academia European**

Vice President of the ISC-CHINA, past president of International Union of Geological Sciences (IUGS) (2020- 2024), founding Director of State Key Lab of Geological Processes and Mineral Resources (China University of Geosciences), chairholder of UNESCO Chair on Deep-time Digital Earth and Mineral Resources. Qiuming's expertise is in the interdisciplinary field of geoscience, mathematics, and data science. With solid training background in geology, mathematics, and computer science, he has successfully established an interdisciplinary research program on study of non-linear properties of the Earth's systems. He received several prestigious awards including Krumbein Medal (2008), the highest award given by the Int. Association for Mathematical Geosciences (IAMG) and the AAG Gold Medal (2020), the highest award given by the Int. Association of Applied Geochemists (AAG).



# Seminar on “Biological Consequences of Global Changes”

To promote biodiversity conservation and green development, China Association for Science and Technology (CAST) and the People’s Government of Yunnan Province will hold Tengchong Scientist Forum 2022 in Tengchong, Yunnan from December 1 to 3, 2022. On the morning of December 2, an international seminar on “biological consequences of global changes (BCGC)” sponsored by the International Society of Zoological Sciences ([www.globalzoology.org.cn](http://www.globalzoology.org.cn)) will be held. The BCGC program was initiated by the International Society of Zoological Sciences in 2008 and is supported by CAST, the Chinese Academy of Sciences and the International Union of Biological Sciences. The program aims to study and assess the impacts of global changes on the loss of biodiversity, animal epidemic diseases, biological invasion, outbursts of biological disasters, resource depletion, etc.

## **I. Theme**

Theme: Biological Consequences of Global Changes, BCGC

## **II. Organizational structure**

Sponsors: CAST and the People’s Government of Yunnan Province

Organizer: International Society of Zoological Sciences



### III. Agenda

December 2, (Friday) Laifeng Hall, Guanfang Hotel		
08:30-08:40	<b>Opening speech</b>	<b>CAST leaders</b>
08:40-11:00	<b>Keynote reports</b>	
08:40-09:00	Keynote report 1: <b>Pleoclimate Change and Human Activities Shape Animal Population History: Genomic Approach</b>	<b>Wei Fuwen</b> Research of the Institute of Zoology, Chinese Academy of Sciences and academician of the Chinese Academy of Sciences
09:00-09:20	Keynote report 2: <b>Climate Change in the Yukon Boreal Forest - 50 years of study in northern Canada</b>	<b>Charles Krebs</b> Professor of the University of British Columbia and academician of the Academy of Science of the Royal Society of Canada
09:20-09:40	Keynote report 3: <b>Biological consequences of global change in central Australia: extreme effects in an extreme environment</b>	<b>Christopher Dickman</b> Professor of the University of Sydney, Australia and academician of the Australian Academy of Science
09:40-10:00	Keynote report 4: <b>Spatial Dynamics and Climate Change</b>	<b>Marcel Holyoak</b> Professor of the University of California, Davis
10:00-10:20	Keynote report 5: Conservation of Chinese Plant Diversity under Global Changes	<b>Wang Zhiheng</b> Boya Distinguished Professor, Deputy Director of the Officer of Academic Development, Assistant Dean of the College of Urban and Environmental Sciences, and Deputy Director of the Institute of Ecology, Peking University
10:20-10:40	Keynote report 6: <b>The Response of Reptile Embryos to Spatial and Temporal Variations in Nest Temperatures</b>	<b>Du Weiguo</b> Director and researcher of the Key Laboratory of Animal Ecology and Conservation Biology, Institute of Zoology, Chinese Academy of Sciences
10:40-11:00	Keynote report 7: <b>Qualifying the Impact of Global Change on Animal Populations</b>	<b>Zhang Zhibin</b> Researcher of the Institute of Zoology, Chinese Academy of Sciences, foreign academician of the Norwegian Academy of Science and Letters, and foreign academician of the European Academy of Sciences

## Introduction of Guests



### Wei Fuwen

**Research of the Institute of Zoology, Chinese Academy of Sciences and academician of the Chinese Academy of Sciences**

Member of the World Academy of Sciences, is mainly engaged in conservation biology research of endangered animals such as giant panda and lesser panda. As the first person to introduce new technologies such as population genomics, metagenomics and comparative genomics into the research of giant pandas, Wei has clarified the population history, endangered process and evolutionary potential of giant pandas; revealed the adaptive evolution law of giant pandas in the course of food habit conversion and specialization in terms of morphology, behavior, physiology, genetics and intestinal microbes; expounded the mechanism of how habitat fragmentation leads to the collapse of isolated small population of pandas, and promoted the implementation of the national giant panda release and habitat corridor construction project. Wei is also the first to put forward new sub-disciplines of "Conservation Evolutionary Biology" and "Conservation Metagenomics". His major research results have been published by journals such as *Science*, *Nature*, *Nature Genetics*, *PNAS*, *Current Biology*, *Molecular Biology and Evolution*, and have been widely covered by well-known media such as Discovery Channel, BBC, Reuters, etc.



### Charles Krebs

**professor of the University of British Columbia and academician of the Academy of Science of the Royal Society of Canada**

Charles Krebs, is a world's top scientist in the field of ecology who has made great contributions to the dynamic regulation mechanism of animal population and published more than 200 papers on *Nature*, *Science*, *Ecology*, *Ecosystem*, *Molecular Ecology*, *OIKOS*, etc. So far, he has published seven books, among which *Ecology: The Experimental Analysis of Distribution and Abundance*, which is regarded as the most widely used textbook of Ecology in the world, has been reprinted five times. His book *Ecological Methods*, which provides abundant quantitative research techniques in Ecology, has become one of the most commonly used reference books for ecologists.



### Christopher Dickman

**Professor of the University of Sydney, Australia and academician of the Australian Academy of Science**

Christopher Dickman, focuses on the factors that affect the distribution and abundance of terrestrial vertebrates. In the past 25 years, Prof. Christopher Dickman has clarified the regulatory factors of the diversity of small vertebrates in arid areas of Australia through field observation and experiments. In addition, based on the study of small mammals and lizard communities in this area, Christopher Dickman has theoretically expounded the influence of environmental factors on species shaping and population dynamics, and discussed the related programs and importance of animal protection. So far, he has published more than 300 papers and participated in the compilation of more than 40 books.



### Marcel Holyoak

**Professor of the University of California, Davis**

Marcel Holyoak, once worked as the editor-in-chief at Ecological Letters. Prof. Marcel Holyoak's research focuses on the influence of global change on animal populations and the maintenance and protection of biodiversity in natural ecosystems, including the influence of environmental factors on population dynamics, the protection of endangered species, animal migration and ecology, and the spatial dynamics in parasitic relationships. So far, he has published more than 70 papers in magazines such as *PNAS*, *Ecology*, *Journal of Animal Ecology*, *OIKOS*, etc.



### Wang Zhiheng

**Boya Distinguished Professor, Deputy Director of the Officer of Academic Development, Assistant Dean of the College of Urban and Environmental Sciences, and Deputy Director of the Institute of Ecology, Peking University**

Wang Zhiheng, listed in the Overseas High-Level Young Talent Program (junior program), Excellent Young Scientist Fund, and National Science Fund for Distinguished Young Scholars. Wang is mainly engaged in the studies of biodiversity and conservation ecology. He has published 2 monographs, 2 articles in books, and



over 120 articles in periodicals, including more than 100 SCI articles. His articles have been cited approximately 8,500 times (based on Google Scholar), including more than 4,500 times of the SCI articles. He serves as the Secretary of the Review Team for Ecological Disciplines of the Office of the State Council Academic Degrees Committee and a editorial board member of several magazines including the *Royal Society*, *Ecological Monographs*, *Global Ecology and Biogeography*, *Journal of Plant Ecology*, etc. In 2011, he was nominated for the National Excellent Doctoral Dissertation Award; the Atlas of Woody Plants in China (in Chinese and English) compiled by Wang won the highest award in the Chinese publication circle, i.e., the Chinese Government Award for Publishing; in 2011, he was granted the Marie Curie Fellowship by the European Union; in 2012, he was listed in the Overseas High-Level Young Talent Program (junior program); in 2014, he won the first prize of the Natural Science Awards for Colleges of the Ministry of Education (as the second author); in 2015, he was granted the Excellent Young Scientist Fund; in 2018, was won the first prize of the 15th Shanghai Book Awards (as the second author) and the first prize of the 31st Outstanding Science Book Awards for Science Publishing Houses in East China (as the second author); in 2021, he was granted the National Science Fund for Distinguished Young Scholars.



## Du Weiguo

**Director and researcher of the Key Laboratory of Animal Ecology and Conservation Biology, Institute of Zoology, Chinese Academy of Sciences**

Du has a doctoral degree in ecology at Zhejiang University. In 2015, he was granted the National Science Fund for Distinguished Young Scholars. He serves as the Vice Secretary General of China Zoological Society, President of the Chinese Herpetological Society of China Zoological Society, and an editorial board member of SCI periodicals *Proceedings of the Royal Society B*, *Integrative Zoology*, *Journal of Experimental Zoology*, and *Asian Herpetological Research*. He is mainly engaged in the studies of the physiology and evolution ecology of reptiles, and has found that reptile embryos can respond to changes in the ambient temperature through behavioral thermoregulation, revealing the behavioral and physiological strategies of reptiles to cope with climate warming. He has published over 100 SCI articles in international journals including *PNAS*, *Current Biology*, *Biological Reviews*, *Proceedings of the Royal Society B*, etc. Currently, he is involved in research



projects under China National Key R&D Program and the National Natural Science Foundation of China.



## Zhang Zhibin

**Researcher of the Institute of Zoology, Chinese Academy of Sciences, foreign academician of the Norwegian Academy of Science and Letters, and foreign academician of the European Academy of Sciences**

Zhang Zhibin, He has been long engaged in the studies of the population ecology of rodents and other pests and their control strategies, and has found large-scale climatic factors driving the outbreak of rodents and other pests and their complex double effects, the regulation mechanism of antagonist cooperation on species coexistence and co-evolution, regulation mechanisms of population neurobiology and enteric microorganisms. He has proposed the theory and technology of rodent sterility control, and enriched and developed the theory of large-scale, non-monotonic population and community ecology, thus providing scientific basis and technical support for early warning, prevention and control of biological disasters and biodiversity conservation. He has published 7 academic books and over 300 articles. He has won the second prize of the National Scientific and Technological Progress Awards, the Outstanding Contribution Award of the Ecological Society of China, and the IUBS Award of the International Union of Biological Sciences (IUBS), and has been honored as a “National Outstanding Science and Technology Research Worker” and an Honorary Life Member at the International Conference on Rodent Biology and Management (ICRBM).



# China-ASEAN Roundtable on Engineer Exchanges

This year is the 55th anniversary of ASEAN and also the first year of a full strategic partnership between China and ASEAN as well as the implementation of RCEP, when China is vigorously promoting the development of the China-ASEAN Free Trade Area 3.0. Premier Li Keqiang of the State Council pointed out at the 17th East Asia Summit that, “[we should] keep to the right direction of economic globalization, continue to pursue trade and investment liberalization and facilitation, and adhere to the principles of open cooperation, mutual benefits and win-win results.” As ASEAN is the largest trade partner of China, in order to promote the exchange of engineers between China and ASEAN and enhance the cooperation with relevant engineering organizations in ASEAN, the Chinese Society of Engineers intends to hold the China-ASEAN Roundtable on Engineer Exchanges jointly with ASEAN Federation of Engineering Organizations (AFEO) during Tengchong Scientist Forum 2022, to build a platform for dialogues between the Chinese engineering circle and engineering organizations in ASEAN countries, promote bilateral cooperation and multilateral communication with engineering organizations in ASEAN countries, facilitate cross-border flow of engineers, and serve quality development of the Belt and Road Initiative.

## **I. Theme**

Theme: Engineer exchanges supports prosperity and sustainable development

## **II. Organizational structure**

Sponsors: China Association for Science and Technology and the People’s Government of Yunnan Province

Organizers: Chinese Society of Engineers and ASEAN Federation of Engineering Organizations (AFEO)

Co-organizers: International Cooperation Committee of the Chinese Society of Engineers and the Chinese Society for Electrical Engineering



### III. Agenda

December 2 (Friday) Laifeng Hall, Guanfang Hotel		
14:00-14:15	<b>Opening ceremony</b> Host: <b>Lin Mingshan</b> , Director of International Cooperation Committee, Chinese Society of Engineers	
14:00-14:05	<b>Speeches from the leadership of CAST and the Chinese Society of Engineers</b>	
14:05-14:10	<b>Speech from ASEAN Federation of Engineering Organisations</b>	<b>Ir. Mohd Khir</b> Secretary General of ASEAN Federation of Engineering Organisations
14:10-14:15	<b>Speech from the leadership of the Institution of Engineers Malaysia</b>	<b>Ir. Prof. Dr. Norlida Buniyamin</b> President of Institution of Engineers Malaysia
14:15-16:15	<b>Keynote reports</b> Host: <b>Zhao Yi</b> , Deputy Secretary-General, Chinese Society for Electrical Engineering	
14:15-14:30	<b>Introduction on China-ASEAN Projects and Demand for Engineers' Cross-border Mobility</b>	By: <b>Zhang Hongping</b> Deputy General Manager of Science and Technology Department, China Railway Construction International Group Limited
14:30-14:45	<b>International Recognition of Chinese Engineers and Engineering Capability Evaluation System</b>	By: <b>Zheng Kai</b> Director of CAST Center for Professional Training and Services, Deputy Secretary General of Chinese Society of Engineers
14:45-15:00	<b>Introduction on AER</b>	By: <b>Ir. Yau Chau Fong</b> Head Commissioner of the ASEAN Engineering Register
15:00-15:15	<b>Engineering Assessment in Malaysia and International Mobility</b>	By: <b>Ir. Prof. Dr. Norlida Buniyamin</b> President of Institution of Engineers Malaysia
15:15-15:25	<b>IES Chartered Engineer Certification Scheme</b>	By: <b>Danny Lee Meng Tuck</b> Vice President of Institution of Engineers Singapore
15:25-15:35	<b>The Assessment Processes for Issuing Professional Certificates in Myanmar</b>	By: <b>Engr. U Thant Syn Lay</b> Chairman of Assessment Committee, Myanmar Engineering Council
15:35-16:15	<b>Respective introductions of other ASEAN countries' engineering capability evaluation system etc.</b>	Council of Engineers of Thailand, Institution of Engineers Indonesia, Technical Committee of the Philippines
16:15-17:00	<b>Open discussion</b> Topic: <b>Issues regarding China-ASEAN engineer recognition and mobility and solution paths</b>	

## Introduction of Guests



### **Ir. Mohd Khir**

**Secretary General of ASEAN Federation of Engineering Organisations**  
**Vice President of Institution of Engineers Malaysia**  
**Board member of Board of Engineers Malaysia**  
**Honorary member of ASEAN Federation of Engineering Organisations**

Currently, he serves as the Secretary General of ASEAN Federation of Engineering Organisations, Vice President of the Institution of Engineers Malaysia, Board member of the Board of Engineers Malaysia (BEM), and President of the Training and Education Committee.



### **Ir. Prof. Dr. Norlida Buniyamin**

**President of Institution of Engineers Malaysia**  
**Board member of Board of Engineers Malaysia**  
**Professor of School of Electrical Engineering, MARA University of Technology**

She has long been committed to the improvement and maintenance of engineering education standards in Malaysia and ASEAN. In 2018, she was elected as the first female chief commissioner of ASEAN Federation of Engineering Organisations (AFEO, founded in 1972). Since 2017, she has served as a Board member of the Board of Engineers Malaysia (BEM) and President of the Training and Education Committee, as well as a member of the National Monitoring Committee (NMC) of BEM, which is responsible for monitoring the standards and mobility of professional engineers in Malaysia. She was honored as a Woman Engineer of the Institution of Engineers Malaysia in 2016.



### **Zhang Hongping**

**Deputy General Manager of Science and Technology Department, China Railway Construction International Group Limited, senior engineer**  
**Technical head of the high-speed rail project connecting three airports in Thailand, China Railway Construction International Group Limited**  
**FIDIC certified engineer, ISO/TC269 registered specialist**



He has long been engaged in railway design and design management, especially for high-speed railways. He served in the government for international capacity cooperation, coordination of policies for interconnectivity and connection of the infrastructure in bordering countries. He has rich experience in overseas engineering projects in countries such as Saudi Arabia, the United Arab Emirates, Thailand, Panama, etc.



### Zheng Kai

**Director of CAST Center for Professional Training and Services**  
**Deputy Secretary General of Chinese Society of Engineers**

He has long been engaged in the research of cadre education and training, assessment of technical talents, and international recognition of engineers. He guides and promotes important works of CAST, including the development of the Party school, incentives and nomination of technical talents, assessment of engineering competency and international recognition, development of the talent pool, etc.



### Ir. Yau Chau Fong

**B.Eng (Hons) Electrical, UM**  
**GBI Facilitator, ASEAN Engineer, Accredited Tier Designer (ATD)**  
**Certified Data Centre Risk Professional (CDRP)**  
**Associate Fellow, ASEAN Academy of Engineering & Technology (AFAAET)**  
**Honorary Member, ASEAN Federation of Engineering Organisation (AFEO)**  
**APEC Engineer, Int.PE International Engineer**  
**ASEAN Chartered Professional Engineer (ACPE)**

Ir. Yau (YCF) has a total of 16 years working experience mainly in a large and reputable consultant firm & data centre design & built specialist. His exposure includes large-scale Electrical System design for various types of buildings, plants & aviation industries & data centres. His experiences include design, implementation and contracting for Electrical Building Services of various types of buildings from specialised buildings such as hangars & data centres to highrise buildings, both locally and overseas.



### **Danny Lee Meng Tuck**

**Senior Education Advisor at Singapore Polytechnic  
Vice President (International Relations) at The Institution of Engineers,  
Singapore (IES) and the Deputy Chairman of Chartered Engineering  
Technologist and Technician Board**

Mr Danny Lee is serving as the Vice President (International Relations) at The Institution of Engineers, Singapore (IES) and the Deputy Chairman of Chartered Engineering Technologist and Technician Board. Mr Lee is a Fellow of IES, registered as Asia-Pacific Economic Cooperation (APEC) Engineer (Electrical) & Chartered Engineer (Aerospace) and also the ASEAN Federation of Engineering Organisations (AFEO) Honorary Member.



### **Engr. U Thant Syn Lay**

**P.E Metallurgy  
Chairman of Assessment Committee, MEngC**

Mr. Thant Syn Lay graduated with the Bachelors of Engineering, specializing in Metallurgy from Rangoon Institute of Technology (RIT) in 1982. He served in Myanmar Navy for 37 years, starting from 1984 before retiring in January 2021. During his period of military service, he was awarded Industrial and Business Excellence Medal (Second Level) in 2007 and achieved Master of Art (Defense) from National Defense University in 2013. He also achieved certificates before from China Shipbuilding Institute and Matsushita Electric (China) Welding School. He was certified as the Professional Engineer (P.E) in Metallurgical Engineering since 2015 and the certified ASEAN CHARTERED PROFESSIONAL ENGINEER since 2016. Currently, he is working as the Chairman of Assessment Committee at Myanmar Engineering Council since May 2022.

