ABS 2026

The 12th International Conference on
Agricultural and Biological Sciences

July 7-10, 2026 | City University of Macau, China

Conference Program

澳門會展旅遊業協會
ASSOCIACAO DOS SECTORES DE CONVENCOES,EXPOSICOES E TURISMO DE MACAU
MACAO ASSOCIATION OF CONVENTION,EXHIBITION &TOURISM SECTORS

澳門城市大學
Universidade da Cidade de Macau
City University of Macau

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Part I Conference Program Overview

Tuesday | July 7, 2026

@ Corridor, 3/F, Luso Chinese Building, City University of Macau

14:00-18:00	**Registration**

Notice:

1. Please show us the acceptance letter or paper/abstract ID for registration.
2. Please pick up all the conference materials at the registration desk (name tag, conference program, meal tickets and field visit ticket etc.).

Wednesday | July 8, 2026

@ Room L307, 3/F, Luso Chinese Building, City University of Macau

09:00-09:10	**WELCOME SPEECH** *Prof. Fenli Zheng, Northwest A&F University, China*
09:10-09:50	**Keynote Speech 1: Fast3VmrMLM: A Fast and Efficient GWAS Algorithm That Identifies QTNs, QTN-by-environment Interactions, and QTN-by-QTN Interactions for Polygenic Traits in Big Data and Artificial Intelligence Era** *Prof. Yuanming Zhang, College of Plant Science and Technology, Huazhong Agricultural University, China*
09:50-10:30	**Keynote Speech 2: Can Soil Health Be Measured to Guide Sustainable Crop Management?** *Prof. Richard Dick, School of Environment and Natural Resources, Ohio State University, USA*
10:30-10:40	**Group Photo**
10:40-11:10	**TEA BREAK** (Room L105, 1/F, Luso Chinese Building)
11:10-11:50	**Keynote Speech 3: Enzymatic Production of Polysaccharides and Oligosaccharides from Ulva and Their Inhibitory Effect against Parkinson's Disease** *Prof. Fufeng Liu, College of Biotechnology, Tianjin University of Science & Technology, China*
12:00-14:00	**LUNCH BREAK** (Room L105, 1/F, Luso Chinese Building)
14:00-14:40	**Keynote Speech 4 (Online): Precise Promoter Cis-Regulatory Element Editing Enables Coordinated Improvement of Plant Architecture, Yield and Grain Quality in Rice** *Prof. Zhongming Fang, College of Agricultural Sciences, Guizhou University, China*
14:40-17:30	**Oral Session 1: Agricultural Frontier Biotechnology, Biocontrol, and Smart Agriculture**
18:00-18:30	**Depart for Macao Tower** Gather at: Rotunda Dr. Carlos A. C. P. D'Assumpção Bus Stop T307 (alongside the uphill road to CityU main gate) 宋玉生博士圓形地巴士站T307（城大校門上坡旁）
18:00-20:30	**Buffet Dinner at Macao Tower** (With Welcome Dinner Ticket)

Thursday | July 9, 2026

@ Room L307, 3/F, Luso Chinese Building, City University of Macau

09:00-11:55	**Oral Session 2: Agricultural Policy, Land Use, and Agro-Ecological Environment**
12:00-14:00	**LUNCH BREAK** (Room L105, 1/F, Luso Chinese Building)
14:00-16:00	**Poster Session** (Room L105, 1/F, Luso Chinese Building)

Friday | July 10th, 2026

One day tour in Macao City (With Field Visit Ticket)

	Depart from City University of Macau
09:00	Gather at: Rotunda Dr. Carlos A. C. P. D'Assumpção Bus Stop T307 (alongside the uphill road to CityU main gate) 宋玉生博士圓形地巴士站T307（城大校門上坡旁）
09:00-10:00	**Ruins of St. Paul**
10:00-11:00	**A-Ma Temple**
11:00-12:00	**Handover Gifts Museum of Macao**
12:00-16:00	**Free time at The Venetian Macao**

Notes: This itinerary is subject to changes based on operational needs and guide instructions.

Part II Keynote Speeches

Keynote Speech 1: Fast3VmrMLM: A Fast and Efficient GWAS Algorithm that Identifies QTNs, QTN-by-environment Interactions, and QTN-by-QTN Interactions for Polygenic Traits in Big Data and Artificial Intelligence Era

Keynote Speaker: Prof. Yuan-Ming Zhang

College of Plant Science and Technology, Huazhong Agricultural University, China

Biograph: Yuan-Ming Zhang is a professor of statistical genomics at Huazhong Agricultural University (HZAU) in China. His major is quantitative genetics. He obtained his bachelor's degree from Southwest Agricultural University in 1986, followed by his master's degree and PhD from Nanjing Agricultural University (NAU) in 1992 and 2001 respectively. He worked on the Rongchang campus of Southwest University from 1986 to 1999 before moving to NAU, and then to HZAU in 2014. He was a postdoctoral fellow at the University of California, Riverside, from 2003 to 2005, and became an associate professor in 1995, progressing to full professor in 2002. In 2022, he was selected as one of the world's top 2% of scientists. He is an editorial board member of Heredity, BMC Genomics, Front Plant Sci (Guest), and Acta Agronomica Sinica. He is also a council member of the Chinese Society of Agri-Biotechnology, and a full member of Sigma Xi, the Scientific Research Honor Society, and the Genetics Society UK. His team has developed several software packages for identifying genes associated with complex traits. These include mrMLM, IIIVmrMLM and Fast3VmrMLM for GWAS, GCIM for QTL mapping, dQTG-seq for bulked segregant analysis, and SEA for mixed inheritance analysis. They can be downloaded for free from https://github.com/YuanmingZhang65 and https://cran.r-project.org/web/packages/. He has published over 120 articles in journals such as Mol Plant, Plant Cell, Brief Bioinform and Heredity.

Abstract: The rapid advancement of omics technologies and AI presents new challenges for genome-wide association studies, including large population sizes, diverse marker types and quantities, and various dependent variable types. Climate change is another challenge. However, studies identifying genes, gene-by-environment interactions (GEI) and gene-by-gene interactions (GGI), as well as breeding by design, remain limited. To identify large-scale genes, GEIs, GGIs and key genes for polygenic or complex traits in big datasets, five algorithms and two computer science technologies were integrated into a compressed variance component mixed model and a 3VmrMLM algorithm framework, combining 'genome-wide scanning + machine learning' to develop an innovative Fast3VmrMLM algorithm. In a reanalysis of 18K rice lines in a single environment, Fast3VmrMLM detected 211 known functional genes for 14 traits, which far exceed the 100 genes identified by FarmCPU in Science. In a joint analysis across three environments, Fast3VmrMLM detected 103 known functional genes and 26 functional GEIs for six yield-related traits. In an epistasis analysis of 100K markers per environment across 18K rice lines, Fast3VmrMLM identified 133 known

functional genes and 41 gene pairs with experimental interaction evidence for six yield-related traits. A gene interaction network was constructed using the known and candidate genes, GEIs and GGIs from the above analyses, identifying 23 key Hub genes related to rice yield traits. The analysis of superior haplotypes for early heading genes identified 38 known major-effect genes that could advance heading by 1–15 days for breeding purposes, as well as 14 GEIs that could advance heading by 1–19 days in Hangzhou. Ten early-heading breeding lines suitable for all three environments and ten region-adapted breeding lines for Hangzhou were identified. In twelve-environment maize dataset, six GEIs interacting with five meteorological factors and two MEJA-detected GEIs helped to explain flowering time plasticity. Thirteen known genes, eight known GEIs and seven plasticity genes advanced flowering by 1.10 to 6.61days, whereas nine known genes, one known GEIs and three plasticity genes increased yield by 0.51 to 3.56 MG·ha–1, identifying fifteen high breeding potential hybrids and 29 genes. Fast3VmrMLM took 12.96 hours and 4.88 GB of memory to jointly analyze phenotypes across 40 environments in 1,000 varieties, each with one million markers, on a small server with 60 CPUs and 1 TB of memory. Additionally, genetic analyses of maize NCII breeding populations, soybean structural variation data, cotton multi-omics data, bin haplotype data and Monte Carlo simulation datasets further validated Fast3VmrMLM. Fast3VmrMLM effectively overcomes the 'blind spots' of traditional approaches when it comes to detecting dominant, small-effect, small allelic substitution effect and rare loci, and expands GEI detection to gene-by-meteorological factor interactions. The size of association mapping populations has increased significantly, from thousands to millions, overcoming the 'computational barrier' of big crop data and the 'bottleneck' challenge of high-end chips. This study presents a method and software platform for large-scale GWAS that is highly effective, fast, broadly applicable, compact and low-power.

Keynote Speech 2: Can Soil Health Be Measured to Guide Sustainable Crop Management?

Keynote Speaker: Prof. Richard Dick

Ohio Eminent Scholar, School of Environment and Natural Resources, Ohio State University, Fellow, Soil Science Society of America, Fellow, Agronomy Society of America, Fulbright Senior Research Scholar, Former President Soil Science Society of America, USA

Biography: Richard Dick is an Ohio Eminent Scholar and Professor of Soil Microbial Ecology at Ohio State University who leads a highly influential research program focused on soil microbial communities and their role in regulating biogeochemical processes and ecosystem services. He has authored over 164 peer-reviewed journal articles, contributed invited book chapters, and edited two books. His work integrates soil microbiome structure and function with applied soil health outcomes, linking biological indicators to nutrient cycling, soil resilience, and sustainable management. A defining contribution of his program is pioneering research on soil enzymology that established enzyme activities as practical, sensitive soil health indicators, now widely used. He has extensive international experience, including work in Bangladesh and over 25 years leading research in West Africa where he directs a multidisciplinary team studying shrub–crop interplanting systems,

demonstrating how these systems enhance water, nutrient dynamics and crop yields, and restore degraded soils. He is a Gordon Research Conference Lecturer, Fulbright Scholar, Fellow of the Agronomy Society of America, and Fellow and past President of the Soil Science Society of America. His work is widely cited (over 12,000 citations; h-index >50) and recognized globally, including designation among the world's top 2% of scientists.

Abstract: Growing recognition of the importance of soils has elevated "soil health" as a central concept in agricultural productivity and environmental sustainability. However, defining soil health in both conceptual and practical terms remains challenging. Unlike air and water, where standardized metrics exist, soils involve complex interactions among physical, chemical, and biological properties, making the development of reliable soil tests difficult. To guide land management, indicators must be dynamic by responding over short time scales (1–3 years), rather than static characteristics that change over decades (e.g., soil organic matter) or geologic time. While physical properties are informative, they are labor-intensive and spatially variable. Furthermore, the commercially available soil health tests are inconsistent in detecting management and do not correlate well with crop yield. There is a need for a soil health test that is temporally sensitive, robust, scalable, and interpretable across soil types. Biological indicators, particularly soil enzyme activities, show strong potential. Enzyme assays reflect microbial function, respond to management within 2–3 years, exhibit seasonal stability, and are compatible with high-throughput analysis. Some can be normalized to clay or carbon content, making measurements independent of soil type; and be measured on air-dried samples, facilitating adoption by commercial labs. Soils from across the U.S. Midwest under diverse management—including tillage, cropping intensity, and organic amendments—were evaluated using enzyme activities (arylsulfatase, N-acetylglucosaminidase, β-glucosidase), microbial markers (FAME), and selected chemical properties. These indicators were integrated into a soil health score that was sensitive to management and correlated with crop yields. This research underscores the importance of dynamic, biologically relevant indicators for advancing soil health assessment as a practical tool to guide land management and policy.

Keynote Speech 3: Enzymatic Production of Polysaccharides and Oligosaccharides from Ulva and Their Inhibitory Effect against Parkinson's Disease

Keynote Speaker: Prof. Fufeng Liu

College of Biotechnology, Tianjin University of Science & Technology, China

Biography: Dr. Fufeng Liu, Tianjin distinguished Professor, Hong Kong scholar. He received his Ph. D. degree of Biochemical Engineering at Tianjin University in 2008 and started his teaching and research career in Tianjin University and became an associate professor in 2011. He is a postdoctoral fellow under the "Hong Kong Scholars program" at the Hong Kong Polytechnic University from March 2013 to May 5015. Since 2016, he has been a full professor of College of Biotechnology at Tianjin University of Science & Technology. In recent years, he integrates molecular simulations,

theoretical models, biochemical and biophysical experiments to conduct fundamental research on the structure and function of amyloid proteins associated with Parkinson's Disease. His research interests include molecular dynamics simulations of the conformational transition and aggregation of amyloid protein associated human's disease, rational design of enzyme molecules and multi-scale modeling of biological and material systems. His work has produced more than 180 research papers published in peer-reviewed international journals. He is now an academic editor of both foods and a member of the editorial board of Aging & Disease.

Abstract: Parkinson's disease (PD) is a chronic, progressive neurological disorder characterized by the progressive loss of dopaminergic neurons in specific areas of the brain. The clinical presentation is characterized mainly by tremors, rigidity, bradykinesia, postural instability, and non-motor symptoms, with the etiology remaining unknown to date. Numerous studies indicate that the primary cause of PD is the misfolding and aggregation of α-synuclein (α-syn). Marine polysaccharides exhibit various biological activities such as anti-tumor, antioxidant, immunomodulatory, wound healing promotion, and regulation of blood glucose and lipid levels, indicating extensive potential for medical applications. Therefore, developing efficient functional factors from marine polysaccharides to prevent and treat PD is of significant research importance. Firstly, a simple and efficient method was developed for the heterologous expression and purification of Aβ and α-syn using an *E. coli* expression system. Subsequently, an uncomplicated, widely applicable, and high-throughput screening system for inhibiting α-syn aggregation was established in both in vivo and in vitro settings. Polysaccharides and oligosaccharides from Ulva were identified using the above system as the effective inhibitors against α-syn fibrogenesis. Moreover, an efficient enzymatic preparation method was also established. Finally, the *in vitro* experiments demonstrated the effective inhibitory capacity against α-syn fibrogenesis, reduction of cytotoxicity induced by α-syn aggregates, and protection of neurons from α-syn-induced functional impairment. Furthermore, the molecular dynamics simulations were also utilized to thoroughly investigate the molecular mechanism underlying the disassembly of the formed αS fibrils.

Keynote Speech 4: Precise Promoter Cis-Regulatory Element Editing Enables Coordinated Improvement of Plant Architecture, Yield and Grain Quality in Rice

Keynote Speaker: Prof. Zhongming Fang

Institute of Rice Industry Technology Research, College of Agricultural Sciences, Guizhou University, China

Biography: Zhongming Fang is a Professor of Molecular Genetics and Plant Breeding at the College of Agriculture, Guizhou University (GZU), China. His research focuses on the molecular genetic dissection of yield and quality traits in rice. He received his Ph.D. from the Graduate University of Chinese Academy of Sciences in 2012. Prof. Fang has led three projects funded by the National Natural Science Foundation of China (NSFC) and one sub-project under the National Key Research and Development Program, in addition to seven provincial and ministerial research grants. He has published over 30 papers as corresponding author in high-impact SCI journals, including Molecular

Plant, Plant Biotechnology Journal, Journal of Integrative Plant Biology, Plant Physiology, and Theoretical and Applied Genetics. Among these, one paper has been recognized as a Hot Paper and two as Highly Cited Papers. He holds over 40 authorized invention patents as the first inventor and has co-bred two new rice varieties. In recognition of his scientific contributions, Prof. Fang has received the Second Prize of Natural Science Award of Guizhou Province (ranked first), the Third Prize of Natural Science Award of Hubei Province (ranked first), and the Guizhou Provincial Youth Science and Technology Award. He is currently a supervisor to 2 postdoctoral fellows, 6 Ph.D. students, and 9 M.S. students, and has successfully guided over 20 graduate students to completion. Prof. Fang serves as Deputy Director of the Guizhou Key Laboratory of High Quality, High Efficiency, and Yield Enhancement in Grain and Oil Crops, and a Position Scientist in the Guizhou Rice Industry Technology System. He is also an editorial board member of the Journal of Plant Genetic Resources and a council member of the Guizhou Society of Biochemistry and Molecular Biology. He has been honored as a "Golden Teacher" (Provincial Teaching Master), a distinguished expert under the Guizhou Provincial Party Committee, and a recipient of the Guizhou Thousand Talents Innovation and Entrepreneurship Program and the Guizhou Outstanding Young Scientific and Technological Talent Award.

Abstract: Cis-regulatory element (CRE) editing via CRISPR-Cas9 is a powerful precision breeding strategy for fine-tuning gene expression and optimizing complex agronomic traits, avoiding the extreme adverse phenotypes caused by traditional gene coding-region knockout in crop improvement. Rice plant height and tiller number are pivotal architectural traits that determine lodging resistance and grain yield; while synergistically improving plant architecture, yield and grain quality remains a major challenge in high-quality rice breeding. This study presents two efficient CRE editing strategies to precisely modulate key regulatory genes for the comprehensive improvement of rice agronomic performance. Firstly, targeting the gibberellin biosynthesis key gene SD1 in the aromatic rice variety Kam sweet rice, we performed targeted editing on the SD1 promoter cis-regulatory element. A specific adenine insertion enhanced the binding affinity of the transcription factor TCP19, thereby strengthening the endogenous TCP19–SD1 repression module and downregulating SD1 expression. The edited lines exhibited reduced gibberellin accumulation, shortened internode cell length and significantly decreased plant height, which effectively improved lodging resistance, while completely retaining original grain yield and nitrogen utilization efficiency without compromising grain quality. Secondly, focusing on the tillering regulatory gene D14 in Kam sweet rice, haplotype analysis of 533 rice accessions verified that the low-expression D14 haplotype is tightly associated with higher tiller number and grain yield. A targeted "CT" deletion at the -1011 bp promoter region was generated via CRISPR-Cas9 editing, which weakened the binding and transcriptional activation effects of OsGL6, OsBLR1 and OsP10 on D14, thus reducing D14 expression. The D14 promoter-edited lines displayed significantly enhanced tillering capacity and grain yield, accompanied by improved grain quality with increased gel consistency and reduced amylose content. Transcriptomic analysis confirmed that both CRE editing strategies remodeled the regulatory networks of phytohormone (gibberellin, auxin and strigolactone) signaling, and further integrated nitrogen metabolism pathways to precisely regulate rice growth and development. Collectively, this study demonstrates that precise promoter CRE editing can fine-tune endogenous gene expression without disrupting gene function, achieving the coordinated improvement of rice plant height, tiller number, yield and grain quality. Our findings highlight the great potential of CRE editing as a superior alternative to conventional gene knockout, providing a reliable and versatile precision breeding strategy for the molecular design and improvement of complex agronomic traits in modern rice and other cereal crops.

Part III Oral Sessions

General Guidelines

- ✧ Duration for Regular Oral Presentation: 15 Minutes of Presentation including 2-3 Minutes of Q&A.
- ✧ All presenters are requested to reach the Session Room prior to the schedule and complete their presentation on time.
- ✧ Presenters should prepare Power Pointer or PDF Files for Presentation with Paper ID (**ABS******) marked in the last page or each page.
- ✧ Signed and stamped presentation certificates will be issued at the end of session.

Oral Presentation Guidelines

Devices Provided by the Conference Organizer:

- ✧ Laptops (with MS-Office & Adobe Reader) & Projectors & Screen
- ✧ Laser Sticks
- ✧ Microphones
- ✧ Please send us the PowerPoint once it is ready and have the PPT back up on a U-disk. For presenters who do not send PowerPoint, please save it in the laptop of the corresponding session 15 min in advance. Kindly tell the Session Chair (before the start of your session) that you are present.

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Best Oral Presentation Selection Procedure

ONE best presentation will be selected from EACH session based on the following criteria:

- ✓ Research Quality
- ✓ Presentation Performance
- ✓ Presentation Language
- ✓ PowerPoint Design
- ✓ **Effective Communications**

Selection Procedure

- ➢ An assessment sheet (see picture) will be delivered to listeners before the session starts.
- ➢ When the session finishes, each listener is required to fill in the sheet (he/she can vote for two excellent presentations) and give it to the Session Chair.
- ➢ The Session Chair will count the votes and select one best oral presentation with more votes. If there is a tie, the Session Chair will make the final decision.

Best Oral Presentations Award

The Best Oral Presenter from each session will receive an official certificate and a free registration to ABS 2027.

Samples of Assessment Sheet

ABS 2026 Oral Presentation Assessment

Dear participants,
Thanks for your support. Kindly read the instructions below for best oral presentation selection:

- You could select two best oral presentations with this form, and kindly fill in the form when all the speakers finish the presentations.
- **ONE** Best Oral Presentations would be selected separately from Session 1 to Session 2.
- To ensure the fairness of the selection, one person could fill in only one form, kindly fill in the form by yourself and fill in your paper/abstract ID.

You can refer to the following criteria for best oral selection:

Items	Assessment
Content	Right, Logical, Original, Well-Structured
Language	Standard, Clear, Fluent, Natural
Performance	Spirited Appearance, Dress Appropriately, Behaves Naturally
PowerPoint	Layout, Structure, Typeset, Animation, Multimedia
Reaction	Build a Good Atmosphere, Speech Time Control Properly

Please write down the paper ID and give reasons for your recommendation:

Paper ID	Reasons

Evaluated by _____ (Paper ID: _____)

Note: Please fill it out and give it to the Session Chair or assistant so that the Best Oral can be selected.

Session 1_ Agricultural Frontier Biotechnology, Biocontrol, and Smart Agriculture

Time: 14:40-17:30 July 8, 2026 **Venue:** Room L307, 3/F, Luso Chinese Building
Session Chair: 14:40-15:40 Prof. Fufeng Liu, Tianjin University of Science & Technology, China
16:00-17:30 Dr. Iffah Nadhira Madzuki, Universiti Malaysia Perlis, Malaysia

14:40-14:55	ABS4857	**Pollination Activity of *Elaeidobius Kamerunicus* Faust (Coleoptera: Curculionidae) on Malaysian Oil Palm Inflorescences in Peat and Mineral Soil** *Dr. Muhamad Haziq Hadif Zulkefli, Malaysian Palm Oil Board, Malaysia*
14:55-15:10	ABS4827	**Integrated Portable Electrochemical Sensing System for Rapid On-Site Nitrate Monitoring in Agricultural Soil and Runoff: Sensor Development, Algorithmic Optimization, and Field Validation** *Dr. Jun Liu, Southeast University, China*
15:10-15:25	ABS4838	**Botanicals and Their Phytochemicals against Fall Armyworm: A PRISMA-Guided Review and Network Analysis** *Ms. Hensly Joy P. Labonete, Mindanao State University–Iligan Institute of Technology, Philippines*
15:25-15:40	ABS4875	***Bacillus subtilis* SNK4: Genomic Features and Effects on Pigeon Growth and Gut Health** *Prof. Lihui Zhu, Shanghai Academy of Agricultural Sciences, China*
15:40-16:00		**TEA BREAK** (Room L105, 1/F, Luso Chinese Building)
16:00-16:15	ABS4888	**Clay Nanosheets as a Penetration-Enhancing Carrier for Thymol Targeting Pest Insects** *Ms. Hanyu Zheng, Queensland Alliance for Agriculture and Food Innovation/ The University of Queensland, Australia*
16:15-16:30	ABS4856	**Valorization of Pleurotus Pulmonarius Spent Mushroom Substrate through Microwave-Assisted Extraction** *Dr. Iffah Nadhira Madzuki, Universiti Malaysia Perlis, Malaysia*
16:30-16:45	ABS4908	**Characteristics of Cuticular Wax and Analysis of Wax Biosynthesis Related Genes in Lanzhou Lily (Lilium Davidii Var. Unicolor) Under Drought Stress** *Dr. Wenmei Li, Northwest Institute for Eco-Environment and Resources Research, Chinese Academy of Sciences, China*
16:45-17:00	ABS4922	**Multiple Resource Inputs Alter Soil Organic Carbon Partitioning Across Grasslands in Northern China** *Dr. Hongling Yang, Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, China*
17:00-17:15	ABS4885	**Identification of Rice Root-Knot Nematodes in Cianjur Regency Indonesia and the Utilization of Endophytic Bacteria for Their Control** *Mr. Roy Hanuddin, IPB University, Indonesia*
17:15-17:30	ABS4928 (Video)	**Marine Cyanobacteria in Mexican Atlantic: An Overview** *Mr. Ernesto Cabrera-Becerril, Universidad Autónoma Metropolitana Ciudad de México, México*

Session 2_ Agricultural Policy, Land Use, and Agro-Ecological Environment

Time: 09:00-11:55 July 9, 2026 **Venue:** Room L307, 3/F, Luso Chinese Building
Session Chairs: Dr. Muhamad Haziq Hadif Zulkefli, Malaysian Palm Oil Board, Malaysia

09:00-09:15	ABS4918	**Response of Microplastic Occurrence and Migration to Heavy Rainstorm in Agricultural Catchment on the Loess Plateau** *Prof. Juying Jiao, Northwest A&F University, China*
09:15-09:30	ABS4917	**Effects of Mollic Layer Thinning on Soil Quality and Crop Production in the Chinese Mollisol Region** *Prof. Fenli Zheng, Northwest A&F University, China*
09:30-09:45	ABS4823	**Contemporary Changes of Agricultural Land Use in Central Europe – Direction and Conditions** *Prof. Jerzy Banski, Institute of Geography and Spatial Organization, Polish Academy of Science, Poland*
09:45-10:00	ABS4824	**Generational Differences in the Sustainability of Maize Production under Extended Land Contracts in Northeast China** *Dr. Daying Zhao, Lingnan Normal University, China*
10:00-10:15	ABS4900	**Impacts of Population Mobility and Land Transfer on Crop Planting** *Prof. Yu Fan, Lingnan Normal University, China*
10:15-10:30	ABS4868	**Extreme Weather Reshapes Cichlid Morphology in the Cross River Basin, Nigeria** *Dr. Caroline Joseph Odum, University of Calabar, Nigeria*
10:30-10:50		**TEA BREAK** (Room L105, 1/F, Luso Chinese Building)
10:50-11:05	ABS4909	**The Spatial Spillover Effect of Digital Agriculture on Carbon Reduction: Evidence from China** *Prof. Caihong Tang, Panzhihua University, China*
11:05-11:20	ABS4910	**Can Coordinated Development of Fiscal and Financial Systems Narrow the Urban-Rural Income Gap? — Empirical Evidence based on 277 Chinese Cities** *Prof. Yunfei Long, Panzhihua University, China*
11:20-11:35	ABS4844 (Video)	**ICT-Enabled Agricultural Systems for Food Security, Climate-Smart Agriculture, and Inclusive Rural Development** *Dr. Rotimi-Williams Bello, Tshwane University of Technology, South Africa*
11:35-11:55	ABS4863 (Video)	**Screening and Delivery of Enzymatic Antioxidants in Nanoparticles or Capsules for Application in Agricultural Productivity and Environmental Sustainability** *Prof. Marcel Zamocky, Slovak Academy of Sciences, Slovakia*

Related video presentations are available via https://www.absconf.org

Part IV Poster Session

Materials Provided by the Conference Organizer:

- ✧ X Racks & Base Fabric Canvases (60 cm×160 cm, see the figure)
- ✧ Adhesive Tapes or Clamps

Materials Provided by the Presenters:

- ✧ Home-made Posters
- ✧ Posters printed by ABS 2026 Committee

Requirements for the Posters:

- ✧ Materials: not limited, can be posted on the Canvases
- ✧ Size: 60 cm (width) ×160 cm (height)
- ✧ Horizontal Head: please make the conference name 'ABS 2026' and the paper number '**ABS******' as the head of the poster in order to make all the posters unified

Requirements for the Posters:

- Each presenter is required to stand by their poster during the dedicated poster session to facilitate discussion and exchange with fellow participants. The selections for **Best Poster Presentation** awards will be made during this time.
- Posters will remain on display from **14:00-16:00** on **July 9th**. Presenters are responsible for removing their posters by this deadline. The Conference Secretariat will not be liable for any posters left uncollected after this time.

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<u>Best Poster Presentation Selection</u>

Selection Criteria:

- ➢ Research Quality
- ➢ Presentation Skill
- ➢ Design

Nature of the Award

- ➢ This award consists of free registration to ABS2027 and a certificate
- ➢ **TWO Best Poster Presentations** will be selected after session finishes with certificate issued and results demonstrated on ABS2027 website

Poster Presentations

Time: 14:00-16:00, July 9th, 2026 **Location:** Room L105, 1/F, Luso Chinese Building

Chairs:

Prof. Juying Jiao, Northwest A&F University, China

Prof. Zhaogang Fu, Lingnan Normal University, China

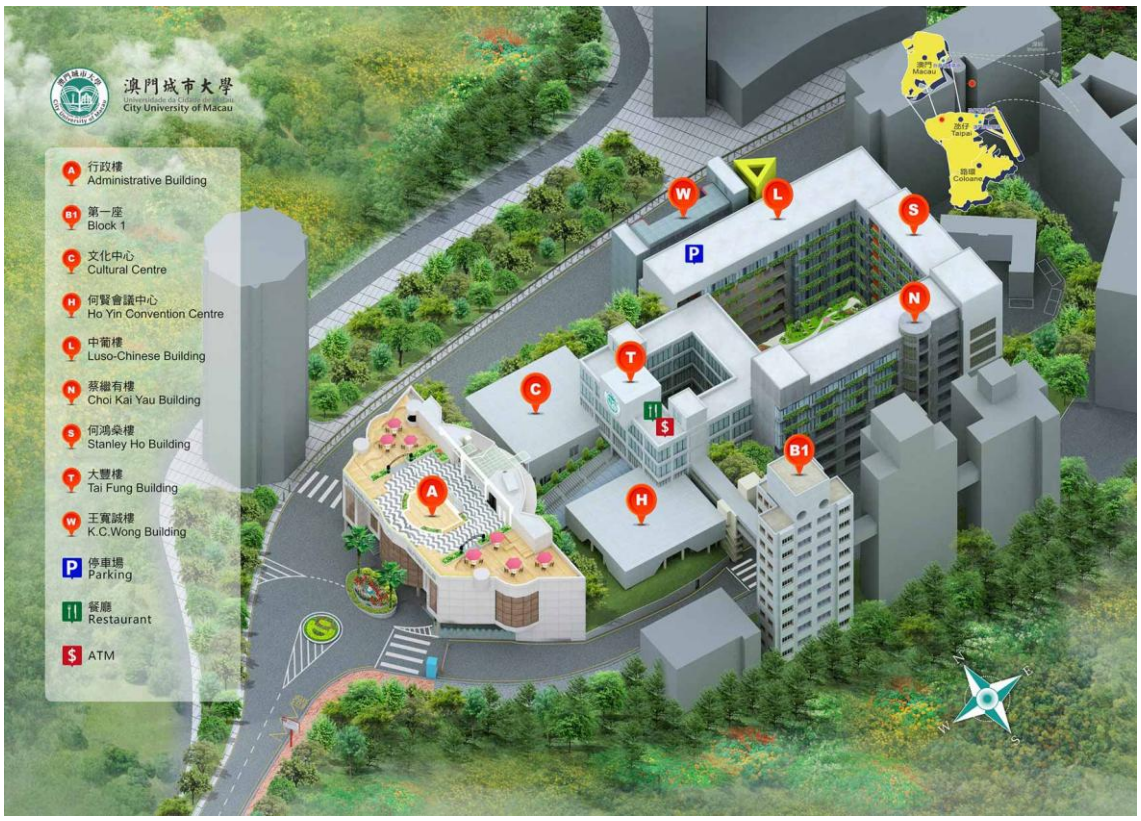
Dr. Daying Zhao, Lingnan Normal University, China

ABS4829	**Biogenic Selenium Nanoparticles Alleviate Mitochondrial and Lysosomal Dysfunction-Induced Intestinal Epithelial Barrier Injury via TBC1D15/Rab7 Axis** *Ms. Jiajing Chang, Northwestern Polytechnical University, China*
ABS4830	**Protective Effects of SeNPs on Intestinal Barrier Function in Early-Weaned Piglets and Its Mechanism** *Dr. Runan Zhang, Northwestern Polytechnical University, China*
ABS4831	**Preparation of *L. Reuteri* CICC 6118-SeNPs and Its Protective Effect on Intestinal Injury in Early-Weaned Piglets** *Dr. Xiaonan Zeng, Northwestern Polytechnical University, China*
ABS4833	**Agrobiodiversity that Sustains Life: Ecosystem Services and Soil Dynamics in Ecuadorian Amazonian "Chakras"** *MsC. Edgar Chicaiza Reisancho, Universidad Estatal Amazónica, Ecuador*
ABS4834	**Benefits and Challenges of *Brachiaria Decumbens* in the Amazon: Impact on Livestock, Soil, and Local Ecological Balance** *Dr. Hernán Alberto Uvidia Cabadiana, Universidad Estatal Amazónica, Ecuador*
ABS4835	**Arazá-based Probiotic (Eugenia Stipitata) as an Alternative to Improve Productive Performance in Broiler Chickens** *Dr. Alina Ramírez Sánchez, Universidad Estatal Amazónica, Ecuador*
ABS4837	**Popular Finance and Its Impact on Rural Businesses in the Ecuadorian Amazon** *Dr. Luis Armijo Auquilla Belema, Universidad Estatal Amazónica, Ecuador*
ABS4839	**Heavy Metals in Amazonian Ecosystems: Diagnosis in Puerto Napo, Tena Canton, Ecuador** *Prof. Angélica María Tasambay Salazar, Amazonian State University, Ecuador*
ABS4840	**Diagnosis of Livestock Activity in the Parish of Veracruz, Pastaza Canton** *Prof. Pablo Ernesto Arias, Amazonian State University, Ecuador*
ABS4847	**Impact of *Bactris Gasipaes* Meal on Carcass Traits and Allometric Growth in Laying Quails (*Coturnix Japonica*)** *Dr. María Isabel Viamonte Garcés, Universidad Estatal Amazónica, Ecuador*
ABS4851	**Ethnoveterinary Medicinal Plants in the Philippines: A PRISMA-Guided Systematic Review and Network Analysis of Candidate Phytogenic Alternatives to Antibiotic Growth Promoters** *Mr. Elgie Jimenez, Mindanao State University–Iligan Institute of Technology, Philippines*

ABS4853	**The Sociology of Tourism Value Chains and Rural Development in Yasuní, Ecuador** *Dr. Edison Eduardo Ruiz Mármo, Universidad Estatal Amazónica, Ecuador*
ABS4862	**Development of Rice-Based Milk and Yogurt Using Different Processing Methods** *Mr. Li-Ho Ni, National Taiwan University*
ABS4880	**Development of a Marine-Derived Natural Flocculant for Treatment of Coal-Fired Power Plant Wastewater** *Dr. Woong-Gil Hong, Cheongsoo E&S INC., C&C TRI, Republic of Korea*
ABS4914	**Evaluation of Triticale Productivity across Sowing Dates under Paddy and Upland Conditions** *Ms. Areum Han, National Institute of Crop Science, Republic of Korea*
ABS4915	**Integration of RNA-Seq, WGCNA and Haplotype Analysis Uncovers Regulatory Hubs for Salt Tolerance in Tongil-type Versus Japonica Rice** *Mr. Jing-Li Gao, Kyungpook National University, Republic of Korea*
ABS4916	**Genetic Insights into Decreased Rate of SPAD Value (DRS) as a Dynamic Indicator for Low Nitrogen Adaptation in Rice** *Mr. Dong-Hyun Baek, Kyungpook National University, Republic of Korea*
ABS4921	**Multiple-environmental Dissecting the Genetic Architecture of 1000-Seed Weight in A Doubled Haploid Population Derived from Rapeseed Cultivar 'Dadi199'** *Dr. Yunfei Wen, Huazhong Agricultural University, China*
ABS4879	**Farmer Entrepreneurship Drives New Rice Variety Adoption in West Guangdong** *Prof. Zhen Chen, Lingnan Normal University, China*

Part V Conference Venue

City University of Macau
Address: Avenida Padre Tomás Pereira Taipa, Macau
Website: https://cityu.edu.mo/en/



Access to Venue

1. From Macao Airport (澳門國際機場)

• About 4 KM
• Approx. 8 - 10 minutes by taxi

• Approx. 40 minutes by bus MT1, and get off at **T300 Esparteiro/Lou Lim Ieok** (史伯泰/盧廉若站)

2. From Border Gate Terminal (澳門關閘)（注：大陸方向為拱北口岸）

• About 10 KM
• Approx. 15 - 20 minutes by taxi

• Approx. 45 - 60 minutes by bus No. 25, and get off at **T300 Esparteiro/Lou Lim Ieok** (史伯泰/盧廉若站)

3. From Hong Kong- Zhuhai-Macao Bridge Frontier Port (港珠澳大橋澳門口岸)

• About 16 KM
• Approx. 25 minutes by taxi

• Approx. 45 - 60 minutes. Take bus No.102X, and get off at **Chun Lai Garden** (泉澧花園)

4. From New Hengqin Port (橫琴口岸澳門口岸)

• About 9 KM
• Approx. 20 minutes by taxi

• Approx. 30 - 40 minutes. Take bus No. 101X, and get off at **T300 Esparteiro/Lou Lim Ieok** (史伯泰/盧廉若站)

Notes: The campus is located on a hill. If alighting at Esparteiro/Lou Lim Ieok, please allow 10-15 minutes for the uphill walk. Comfortable footwear is recommended.

Part VI Acknowledgments

On behalf of the ABS 2026 Organizing Committee, we would like to take this opportunity to express our sincere gratitude to our participants. Without their support and contributions, we would not be able to hold the conference successfully. We would also like to express our acknowledgments to the Technical Program Committee members who have given their professional guidance and valuable advice as reviewers. Below are the lists of the Technical Program Committee members. For those who contribute to the success of the conference organization without listing their names here, we would love to say thanks as well.

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Prof. Moniruzzaman Khondker, University of Dhaka, Bangladesh

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