



METABOLIC ENGINEERING CONFERENCE

JUNE 11-15, 2023
Marina Bay Sands, Singapore

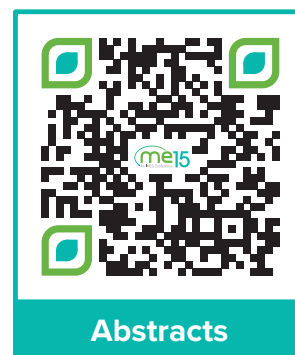
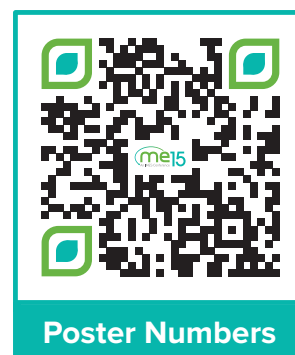
Organized by the International Metabolic Engineering Society

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TIPS FOR A SUCCESSFUL MEETING

-  Say **hello** to everyone.
You might make someone's day.
-  **Introduce** yourself to people you don't know.
They may be your next good friends.
-  Stop and **smile**.
You will brighten the room considerably.
-  Be **understanding**.
Everybody makes mistakes.
-  **Help** those with less experience.
We were all novices at some point.
-  **Respect** others.
We all have something valuable to contribute.
-  **Value** staff and volunteers.
They are here for you.
-  Be **kind**.
You will never like everybody, but you can be cordial to all.
-  **Enjoy** the meeting!
You can have fun while sharing, learning and networking.



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WELCOME ADDRESS

Greetings!

We are pleased to welcome you to Singapore for the Metabolic Engineering 15 Conference, taking place June 11-15, 2023 at the Marina Bay Sands. After the challenges presented by the Covid-19 pandemic, we are excited to be back together for the first in-person conference in the series since 2018. Clearly, there is enthusiasm from this growing community, as Metabolic Engineering 15 will be the largest conference in this series with over 600 registrants.

The Metabolic Engineering Conference is the world-leading event to share developments and achievements in the field. The conference enables participants to collectively explore how developments in metabolic engineering can advance diverse sectors across agriculture, biomanufacturing, medicine, and more. No other conference provides this breadth and excellence in the field of metabolic engineering.

Over the next 5 days, you will hear from leaders and up-and-comers in the field, including plenary speakers: Sang Yup Lee, KAIST; Kristala Prather, MIT; and Michael Koepke, Lanzatech. Throughout the week, there will be over 60 technical presentations from the global metabolic engineering community, as well as hundreds of posters and rapid-fire presentations. We are also excited to hear award lectures from the Greg Stephanopoulos Awardee, Jim Liao, and the Metabolic Engineering Awardee, George Guo-Qiang Chen.

There are a couple of new features in this edition of Metabolic Engineering that we would like to point out. Session chairs will start each session with a 5-minute overview and perspective of the field and lead a panel discussion. Lightning Talk Sessions are brief talks that provide opportunities for more people to present at the meeting, especially early career professionals. “Lunch with a Legend” and “Industry Mentoring Lunch” opportunities exclusively reserved for student attendees help connect students with the sages of the field. These new events will allow up-and-coming members of the community to share their work and learn from the leaders of our community.

Outside of the technical presentations, we are looking forward to networking events, particularly the Opening Reception on Sunday evening and the Banquet at the Flower Dome on Wednesday evening. We are grateful to the National University of Singapore, Temasek Life Sciences Laboratory, and the Singapore Tourism Board for their generous support of these events.

We would also like to thank the International Metabolic Engineering Society, for providing support to this conference, which allowed us to lower registration rates for many students, post-docs and early career professionals. Additionally, thank you to our conference sponsors for making this event possible, especially our Platinum and Gold Sponsors: the National University of Singapore, Conagen and Inscripta.

Finally, we would like to thank you for attending the conference and hope that you find the week to be stimulating, inspiring and fun!

Sincerely,



Matthew Chang
Chair



Hal Alper
Co-Chair



Yan Feng
Co-Chair



Christine Santos
Co-Chair



Tae Seok Moon
Co-Chair



Verena Sewers
Co-Chair

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- **Yan Feng**, Shanghai Jia Tong University, Conference Co-Chair
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- **Katharina Noh**, University of Juelich
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- **Claudia Vickers**, Eden Brew
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Sponsors as of May 26, 2023

TECHNICAL PROGRAM

SUNDAY, JUNE 11	
15:15-15:30	OPENING REMARKS
15:30-16:00	PLENARY TALK 1 Session Chair: Christine Santos , Manus Bio Systems Metabolic Engineering of Bacteria Sang Yup Lee , KAIST Location: Orchid Ballroom
16:00-16:30	LIGHTNING SESSION 1 Session Chair: Hal Alper , The University of Texas at Austin Location: Orchid Ballroom
16:00	Crispri Repression Screens Reveal Tradeoffs between Growth Rate and Robustness in Cyanobacteria in Various Trophic Conditions Rui Miao , Royal Institute of Technology
16:05	Producing Psychedelic Medicines – the Next Generation of Mental Health Treatment J. Andrew Jones , Miami University
16:10	Metabolic Pathway Assembly Using Docking Domains from Type I Cis-act Polyketide Synthases Tian Ma , Shenzhen Institute of Advanced Technology
16:15	Metabolomics-Guided Discovery of Metabolic Design Principles and Engineering Strategies Junyoung Park , University of California, Los Angeles
16:20	Upgrading Pseudomonas Putida by Systems Metabolic Engineering for Biotechnological Processing of Lignocellulosic Sugars Pavel Dvorak , Masaryk University
16:25-17:00	BREAK Location: Melati Ballroom
17:00-18:15	SESSION 1: METABOLIC ENGINEERING FOR NEXT-GENERATION AGRIFOOD Session Chairs: Anastasia Krivoruchko , Melt&Marble & Claudia Vickers , Queensland University of Technology Location: Orchid Ballroom
17:05	Metabolically Engineered Microbes for a Sustainable Agri-food Industry: From the Valorization of Waste Streams to the Synthesis of Agrochemicals, Food Preservatives, and Essential Nutrients Christoph Wittmann , Saarland University
17:20	Sustainable Production of Ingredients for Vast Range of Applications with Example of Advances in Microbial Production of Natural Sweeteners Elena Brevnova , Conagen Inc.
17:30	Precision Fermentation for Producing Food Ingredients and Fermented Foods Yong Su Jin , University of Illinois at Urbana-Champaign
17:40	Green Vitamin A: A World's First Bio-Based Process Liang Wu , DSM Biotechnology Center
17:50	Panel Discussion
18:15-18:35	RAPID FIRE SESSION 1: 1-20
18:35-21:00	POSTER SESSION 1A & OPENING RECEPTION Location: Orchid Junior Ballroom and Melati Junior Ballroom

TECHNICAL PROGRAM

MONDAY, JUNE 12	
7:30-8:30	BREAKFAST
8:30-9:00	PLENARY TALK 2 Session Chair: Susanna Leong , Singapore Institute of Technology Substrate-driven Control of Biosynthetic Pathways Towards Mixed-feed Utilization Kristala Prather , Massachusetts Institute of Technology Location: Orchid Ballroom
9:00-10:30	SESSION 2: NEXT-GENERATION ANALYTICS FOR METABOLIC ENGINEERING Session Chairs: Tomohisa Hasunuma , Kobe University & Byung Kwan Cho , KAIST Location: Orchid Ballroom
9:05	Metabolic Engineering using Microdroplets Hal Alper , The University of Texas at Austin
9:20	Comamonas Testosteroni as a New Chassis for Lignin and Plastics Valorization Ludmilla Aristilde , Northwestern University
9:30	Label-Free and High-Throughput Sorting of Metabolic Phenome for Microbial and Mammalian Cell Factories By Flow-Mode Raman-Activated Cell Sorting (FlowRACS) Jian Xu , Qingdao Institute of BioEnergy and Bioprocess Technology, Chinese Academy of Sciences
9:40	Pinpointing Metabolite Cross Feeding Interactions in Microbial Communities Using a Novel ¹³C Metabolic Flux Analysis Approach Maciek Antoniewicz , University of Michigan
9:50	Nonlinear Dynamic Models of Metabolism Derived by AI for Metabolic Engineering Applications Ljubisa Miskovic , Swiss Federal Institute of Technology (EPFL)
10:00	Panel Discussion
10:30-11:00	BREAK Location: Melati Ballroom
11:00-12:30	SESSION 3: BIG DATA AND ARTIFICIAL INTELLIGENCE FOR METABOLIC ENGINEERING Session Chairs: Dong Yup Lee , Sungkyunkwan University & Pablo Carbonell , Universitat Politècnica de València Location: Orchid Ballroom
11:05	Artificial Intelligence (AI)-Enhanced Structure Dynamics-Guided Biocatalyst Design Susie Dai , Texas A&M University
11:15	Characterization and Engineering of Microbial Metabolism By Using Bio Big Data and Machine Learning Hyun Uk Kim , Korea Advanced Institute of Science and Technology (KAIST)
11:25	Deep Learning Driven Biosynthetic Pathways Navigation for Natural Products with Bionavi Ruibo Wu , Sun Yat-sen University
11:35	Bridging Machine Intelligence and Synthetic Biology for Understanding and Engineering of Biological Systems Aleksej Zelezniak , Chalmers University of Technology
11:45	Panel Discussion

TECHNICAL PROGRAM

MONDAY, JUNE 12 (CONTINUED)	
12:15-13:15	INSCRIPTA LUNCH WORKSHOP Lunch Location: Peony Ballroom • Workshop Location: Orchid Ballroom
13:15-14:30	POSTER SESSION 1B Location: Orchid Junior Ballroom and Melati Junior Ballroom
14:30-15:45	SESSION 4: METABOLIC ENGINEERING FOR MULTI-CELLULAR SYSTEMS Session Chairs: Zengyi Shao, Iowa State University & Rodrigo Ledesma-Amaro, Imperial College London Location: Orchid Ballroom
14:35	Animal Free Glycosaminoglycans: Biosynthesis of Chondroitin Sulfate and Heparin Using Metabolic Engineering Approaches Mattheos Koffas, Rensselaer Polytechnic Institute
14:50	Bacterial Metabolites Essential for Post-Embryonic Development of C. Elegans Qing Sun, Texas A&M University
15:00	Challenges & Opportunities of Mixotrophic Syntrophic Cocultures Enabling CO2 Fixation to Achieve Transformative Product Yields Eleftherios Terry Papoutsakis, University of Delaware
15:10	Optimization of Strigolactone-Producing Bacteria-Yeast Consortium Yanran Li, University of California, Riverside
15:20	Panel Discussion
15:45-16:10	LIGHTNING SESSION 2 Session Chair: Hal Alper, The University of Texas at Austin Location: Orchid Ballroom
15:45	Engineering Synthetic Carbon Fixation in Escherichia coli Sebastian Wenk, Max Planck Institute of Molecular Plant Physiology
15:50	Eubacterium Limosum as a Chassis for High-Efficiency Bioproduction from C1 Substrates Benjamin Woolston, Northeastern University
15:55	Computer-Aided Design and Implementation of Efficient Biosynthetic Pathways to Produce High Added-Value Products Derived from Tyrosine in Escherichia coli Sofia Ferreira, ITQB-NOVA
16:00	The Biophotovoltaics for Biohydrogen Production Using Sunlight and Water Bin Lai, Helmholtz Centre for Environmental Research – UFZ
16:05	Establishing Pichia Pastoris as a Chassis for the Production of Plant Natural Products Jiazhang Lian, Zhejiang University
16:15-16:45	BREAK Location: Melati Ballroom

TECHNICAL PROGRAM

MONDAY, JUNE 12 (CONTINUED)

16:45-18:15	SESSION 5: METABOLIC ENGINEERING FOR NEXT-GENERATION MEDICINE Session Chairs: In Young Hwang, Singapore Institute of Technology & Lawrence Chun Loong Ho, Shenzhen Institute of Advanced Technology Location: Orchid Ballroom
16:50	SynBio-Driven Biosystems Design for the Innovative Bio-industrialization Zixin Deng, Key Laboratory of Combinatorial Biosynthesis and Drug Discovery, Wuhan University
17:05	Metabolic Engineering for Production of the Drug Candidates Scyllo-Inositol and D-Chiro-Inositol Michael Bott, Institute of Bio- and Geosciences
17:15	Engineering Strategies for Higher Production of Aromatic Amino Acid Derivatives in <i>Saccharomyces Cerevisiae</i> Yunzi Luo, Tianjin University
17:25	An Integrated Technology Platform for Microbial Biosynthesis Michal Pyc, Willow Biosciences Inc.
17:35	Engineering Genetic Switches for Precision Medicine Haifeng Ye, East China Normal University
17:45	Panel Discussion
18:15-18:35	RAPID FIRE SESSION 2: 21-40
18:35-21:00	POSTER SESSION 2A & RECEPTION Location: Orchid Junior Ballroom and Melati Junior Ballroom

TUESDAY, JUNE 13

7:30-8:30	BREAKFAST
8:30-9:10	GREG STEPHANOPOLOUS AWARD LECTURE: METABOLIC ENGINEERING IN FUTURE SOCIETY James Liao, Academia Sinica
9:10-10:30	SESSION 6: FUTURE OF METABOLIC ENGINEERING Session Chairs: Kristala Jones Prather, MIT & Sang Yup Lee, KAIST Location: Orchid Ballroom
9:15	New frontiers of Metabolic Engineering Greg Stephanopoulos, Massachusetts Institute of Technology
9:25	Innovation Trends in Metabolic Engineering Jens Nielsen, BioInnovation Institute
9:35	Engineering Yeast to Synthesize Medicinal Compounds Via an Integrated Systems Approach Christina Smolke, Stanford University
9:45	New Challenges in Metabolic Engineering and Biofoundry Akihiko Kondo, Kobe University
9:55 - 10:30	Panel Discussion

TECHNICAL PROGRAM

TUESDAY, JUNE 13 (CONTINUED)

10:30-11:00	BREAK Location: Melati Ballroom
11:00-12:30	SESSION 7: NEW-TO-NATURE CHEMISTRY FOR METABOLIC ENGINEERING Session Chairs: Pablo Ivan Nickel, Technical University of Denmark & Julius Fredens, National University of Singapore Location: Orchid Ballroom
11:05	Engineering Microbial Metabolism for New-to-Nature Chemistry and Products Jay Keasling, University of California, Berkeley
11:20	Artificial Membraneless Organelles for Metabolic Engineering Xiaoxia Xia, Shanghai Jiao Tong University
11:30	New Keys to Unlock the Treasure Trove of Microbial Natural Products Nigel Mouncey, DOE Joint Genome Institute
11:40	Engineering Production of New-to-Nature Terpenoids in Saccharomyces Cerevisiae Codruta Ignea, McGill University
11:50	Posttranslational Formation of Cyclophanes in Bacteria Brandon Morinaka, National University of Singapore
12:00	Panel Discussion
12:30-13:30	CONAGEN LUNCH WORKSHOP Location: Peony Ballroom
13:30-14:45	POSTER SESSION 2B

WEDNESDAY, JUNE 14

7:30-8:30	BREAKFAST
8:30-9:00	PLENARY TALK 3 Session Chair: Pimchai Chaiyen, VISTECH The Carbon Revolution: Scaling Circularity to Replace Fossil Oil Michael Koepke, LanzaTech Location: Orchid Ballroom
9:00-10:30	SESSION 8: NEXT-GENERATION FEEDSTOCK FOR METABOLIC ENGINEERING Session Chairs: Hector Ruiz, Autonomous University of Coahuila & Ben Woolston, Northeastern University Location: Orchid Ballroom
9:05	Upgrading CO2 to Value-Added Chemicals Via Cell-Free Systems Pamela Peralta-Yahya, Georgia Institute of Technology
9:15	Teaching Old Dogs New Tricks — Elucidating Core Design Principles to Engineer Nonconventional Yeasts and Consortia As Microbial Factories Zengyi Shao, Iowa State University

TECHNICAL PROGRAM

WEDNESDAY, JUNE 14 (CONTINUED)	
9:25	Macroalgae Biorefinery: New Opportunity of Metabolic Engineering Gyoo Yeol Jung, Pohang University of Science and Technology (POSTECH)
9:35	Engineering Methylophilic Yeasts As Next-Generation Chassis for Biomanufacturing Chemicals from Methanol Yongjin Zhou, Dalian Institute of Chemical Physics
9:45	New Metabolic Engineering Strategies for Producing Oleochemicals in Microbes Brian Pflieger, University of Wisconsin-Madison
9:55	Panel Discussion
10:30-11:00	BREAK Location: Melati Ballroom
11:00-12:30	SESSION 9: NEXT-GENERATION CHASSIS FOR METABOLIC ENGINEERING Session Chairs: Jens O. Krömer, Helmholtz-Centre for Environmental Research & Jiazhang Lian, Zhejiang University Location: Orchid Ballroom
11:05	CRISPR-Cas Toolkits for Genome Scale Functional Genomics in Non-model Microbes Carrie Eckert, Oak Ridge National Laboratory
11:20	The Weizmann Process Revisited for Advanced Lignocellulosic Biofuel Production Philippe Soucaille, Toulouse University
11:30	Gene-Editing and Mining of Novel Gene-Elements in Non-Model Rhodococcus Huimin Yu, Tsinghua University
11:40	Harnessing Lignocellulolytic Anaerobic Fungi for Metabolic Engineering Kevin Solomon, University of Delaware
11:50	Computational Biology-Guided Microbial Engineering Empowers Artificial Intelligence-Guided Bioprocess Design to Achieve Record Algal Productivity Joshua Yuan, Washington University in St. Louis
12:00	Panel Discussion
12:30-14:00	LUNCH Location: Peony Ballroom
14:00-15:30	SESSION 10: SYNTHETIC BIOLOGY FOR METABOLIC ENGINEERING Session Chairs: Han Li, University of California, Irvine & Aditya Kunjapur, University of Delaware Location: Orchid Ballroom
14:05	Metabolic Engineering of Yeasts for the Production of Betalain-type Natural Colors Irina Borodina, Technical University of Denmark
14:20	Towards Universal Synthetic Heterotrophy in Baker's Yeast. or Why to Stop Fighting Cellular Nature with Engineering Goals Nikhil Nair, Tufts University
14:30	Efficient Production of Various Disubstituted Mycosporine-like Amino Acids, Natural Sunscreen Materials, in Yeasts Ji-Sook Hahn, Seoul National University

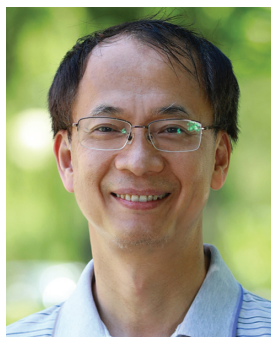
TECHNICAL PROGRAM

WEDNESDAY, JUNE 14 (CONTINUED)	
14:40	Next-Generation Tools for Metabolic Engineering Rodrigo Ledesma Amaro, Imperial College London
14:50	Retrosynthetic Pathway Design and Enzyme Engineering for Cis-α-Irone Biosynthesis Xixian Chen, Singapore Institute of Food and Biotechnology Innovation, Agency for Science, Technology and Research
15:00	Panel Discussion
15:30-16:00	BREAK Location: Melati Ballroom
16:00-16:25	LIGHTNING SESSION 3 Session Chair: Hal Alper, The University of Texas at Austin Location: Orchid Ballroom
16:00	Membrane-Free ATP Production from Electricity Shanshan Luo, Max Planck Institute for Terrestrial Microbiology
16:05	How the Biosynthesis of Non-Standard Amino Acids Can Enable New Forms of Vaccines, Antibiotics, and Biological Containment Aditya Kunjapur, University of Delaware
16:10	Engineering Rhodosporidium Toruloides for Production of 3-Hydroxypropionic Acid from Lignocellulosic Hydrolysate Di Liu, Sandia National Laboratories
16:15	Biosynthesis of Mushroom-Derived Ganoderic Acids By Engineered Yeast Han Xiao, Shanghai Jiao Tong University
16:20	Complete Biosynthesis of QS-21 in Engineered Yeast Yuzhong Liu, California Institute for Quantitative Biosciences (QB3), University of California, Berkeley
16:25-17:45	ME15 AWARD CEREMONY Jay Bailey Young Investigator Award Poster Awards International Metabolic Engineering Award Lecture: Next Generation Industrial Biotechnology based on Synthetic Biology of Halomonas spp. George Guo-Qiang Chen, Tsinghua University
18:30-22:00	CONFERENCE BANQUET Flower Field Hall, Gardens By the Bay
22:00-24:00	FLOWER DOME VISIT

TECHNICAL PROGRAM

THURSDAY, JUNE 15	
7:30-9:00	BREAKFAST
9:00-10:30	SESSION 11: BIOFOUNDRIES: AUTOMATION IN METABOLIC ENGINEERING Session Chairs: Eriko Takano, Manchester Institute of Biotechnology & Pengfei Xia, Shandong University Location: Orchid Ballroom
9:05	Recent Advances in Biofoundry Development Huimin Zhao, University of Illinois Urbana-Champaign
9:20	Enabling Exquisite Control in Cell-Free Biomanufacturing with Orthogonal Redox Cofactors Han Li, University of California-Irvine
9:30	Design to Learn, Learn to Design: The Dual Challenge of Automated Strain Engineering Lars Nielsen, Australian Institute for Bioengineering and Nanotechnology, The University of Queensland
9:40	Automating Adaptive Laboratory Evolution to Generate a Full Technology Platform Adam Feist, University of California, San Diego
9:50	Engineering Oleaginous Yeast for Novel Food Ingredients Maciej Holowko, Nourish Ingredients
10:00	Panel Discussion
10:30-11:00	BREAK Location: Melati Ballroom
11:00-12:30	SESSION 12: METABOLIC ENGINEERING FOR BIOMANUFACTURING: FROM LAB TO INDUSTRY Session Chairs: Wataru Mizunashi, NEDO & Hal Alper, The University of Texas at Austin Location: Orchid Ballroom
11:05	Microbial Production and Downstream Conversion of Building Block Chemicals for Consumer and Industrial Products in a Fully Vertically Integrated Company Rebecca Lennen, Lygos, Inc.
11:15	Performing in Spite of Stress: How to Engineer a Robust E. coli Chassis for Large Scale Application Ralf Takors, Institute of Biochemical Engineering, University of Stuttgart
11:25	Data-Driven Design and Development of Commercial and Scalable Cell Factories Harish Nagarajan, Genomatica, Inc.
11:35	Crossing the Valley of Death to Commercialization: Manus' Journey Ajikumar Parayil
11:45	Metabolic Engineering: Made to Scale Matthew Lipscomb, DMC Biotechnologies
11:55	Panel Discussion
12:30-12:45	CLOSING REMARKS

International Metabolic Engineering Award



George Guo-Qiang Chen
Director of the Center of Synthetic and Systems Biology
School of Life Sciences,
Tsinghua University

George Guo-Qiang Chen is currently the Changjiang Professor in the School of Life Sciences and Department of Chemical Engineering at Tsinghua University. He received a B.S.

('85) in Applied Chemistry by the South China University of Technology, a Ph.D. ('89) in BioTechnology from Technische Universität Graz, and a postdoc studies ('90-'94) at the University of Nottingham & University of Alberta.

He is a member of a number of journal Editorial Boards including Metabolic Engineering, Biotechnology Advances, Trends in Biotechnology and Synthetic and Systems Biotechnology et al. In 2015, he founded the Center of Synthetic and Systems Biology at Tsinghua University. He is the Guest Chair Professor in Manchester Center of Biotechnology at the The University of Manchester.

Jay Bailey Young Investigator Award in Metabolic Engineering



Pavel Dvořák
Associate Professor,
Masaryk University

Pavel is an Associate Professor and group leader at Masaryk University where he also obtained his M.Sc. (2009) and Ph.D. (2014) degrees with honors in molecular biology. He began his research career at Loschmidt Laboratories, Faculty

of Science, Masaryk University, the protein engineering group of Jiri Damborsky.

Pavel conducted post-doctoral research ('15-'18) in the laboratory of Victor de Lorenzo in Centro Nacional de Biotecnología (CNB-CSIC) and was awarded a two-year Marie S. Curie fellowship. He has authored and co-authored 21 publications and three patents and was recently elected a board member of the Bioengineering

& Bioprocessing Division of the European Federation of Biotechnology.

Pavel is one of the PIs of the first Brno iGEM team, whose project CYANOTRAP was selected among the TOP 5 in the Environmental category in 2020. He is a co-founder of the civic organization BioMania.

The Gregory N. Stephanopoulos Award for Metabolic Engineering



Dr. James C. Liao
President, Academia Sinica

Dr. Liao is the President of Academia Sinica, Taiwan. After working as a research scientist at Eastman Kodak Company in Rochester, NY, he began his academic career in 1990 at Texas A&M University and then at UCLA in 1997. He is a member of the US National Academy of

Engineering, US National Academy of Sciences, and an academician of Academia Sinica.

Dr. Liao is a pioneer in Metabolic Engineering and Synthetic Biology. His research has focused on metabolism, including its biochemistry, regulation, and redesign. Currently, his work includes designing and engineering biochemical pathways for CO₂ fixation and production of fuels and chemicals. Dr. Liao received numerous awards and recognitions, including the US Environmental Protection Agency (EPA) Presidential Green Chemistry Challenge Award, the White House "Champion of Change" for innovations in renewable energy, the Eni Renewable Energy Prize bestowed by the President of Italy, the US National Academy of Sciences Award for the Industrial Application of Science, Novozymes Award for Excellence in Biochemical and Chemical Engineering, and the Israeli Samson-Prime Minister's Prize for Innovation in Alternative Energy and Smart Mobility for Transportation.

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1. Hold paramount the safety, health and welfare of the public and protect the environment in performance of their professional duties.
2. Formally advise their employers or clients (and consider further disclosure, if warranted) if they perceive that a consequence of their duties will adversely affect the present or future health or safety of their colleagues or the public.
3. Accept responsibility for their actions, seek and heed critical review of their work and offer objective criticism of the work of others.
4. Issue statements or present information only in an objective and truthful manner.
5. Act in professional matters for each employer or client as faithful agents or trustees, avoiding conflicts of interest and never breaching confidentiality.
6. Treat all colleagues and co-workers fairly and respectfully, recognizing their unique contributions and capabilities by fostering an environment of equity, diversity and inclusion.
7. Perform professional services only in areas of their competence.
8. Build their professional reputations on the merits of their services.
9. Continue their professional development throughout their careers, and provide opportunities for the professional development of those under their supervision.
10. Never tolerate harassment.
11. Conduct themselves in a fair, honorable and respectful manner.

CODE OF CONDUCT

AIChE's volunteers are the core of the Institute and make all of its programs, conferences and educational efforts possible. These offerings provide excellent opportunities for AIChE members and meeting attendees to gain greater technical expertise, grow their networks, and enhance their careers. AIChE events provide engineers, scientists, and students a platform to present, discuss, publish and exhibit their discoveries and technical advances.

At all times, volunteers and meeting attendees should act in accordance with AIChE's Code of Ethics, upholding and advancing the integrity, honor and dignity of the chemical engineering profession. AIChE's Board of Directors has developed these guidelines to foster a positive environment of trust, respect, open communications, and ethical behavior. These guidelines apply to meetings, conferences, workshops, courses and other events organized by AIChE or any of its entities and also to volunteers who conduct other business and affairs on behalf of AIChE.

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1. Volunteers and meeting attendees should understand and support AIChE's Code of Ethics.
2. Volunteers and meeting attendees should contribute to a collegial, inclusive, positive and respectful environment for fellow volunteers and attendees, and other stakeholders, including AIChE staff.
3. Volunteers and meeting attendees should avoid making inappropriate statements or taking inappropriate action based on race, gender, age, religion, ethnicity, nationality, sexual orientation, gender expression, gender identity, marital status, political affiliation, presence of disabilities, or educational background. We should show consistent respect for colleagues, regardless of discipline, employment status, and organizations for which they work, whether industry, academia, or government.
4. Disruptive, harassing or other inappropriate statements or behavior toward other volunteers, members, and other stakeholders, including AIChE staff, is unacceptable.
5. Volunteers and meeting attendees should obey all applicable laws and regulations of the relevant governmental authorities while volunteering or attending meetings. Volunteers and meeting attendees taking part in any AIChE event, including the ChemECar Competition™, should also comply with all applicable safety guidelines.
6. Violations of this conduct policy should be reported promptly to the AIChE President or Executive Director.

REGULATIONS + SAFETY INFORMATION



A NOTE ON PHOTOGRAPHY AND VIDEOGRAPHY FROM THE MEETING ORGANIZERS



RECORDING & PHOTOGRAPHY POLICY

AIChE Meetings are one of the primary ways the Institute fulfills its mission to advance the development and exchange of relevant knowledge. The content presented at this event is the property of the presenters and the firms where they work. Recording of sessions or taking photos of slides is strictly prohibited.



GENERAL PHOTOGRAPHY NOTICE

Sessions and events at the meeting are being photographed by a professional photographer. These photos will be used to illustrate articles in CEP Chemical Engineering Progress® Magazine, on the AIChE website and in promotional materials for future Meetings. By registering for this conference, you consent to your likeness being used for such purposes without compensation and release AIChE from any liability on account of such usage.



SAFETY TIPS

Enhance your experience at our conference by staying safe. Here are some safety tips to observe:

- When off the hotel grounds, please do not wear your badge in public. Doing so can give professional opportunists access to your name, which they may then exploit to your detriment.
- When you are through with your badge, turn it in to registration. Do not leave it laying in the open so that unscrupulous individuals have access to it. In addition, please do not let anyone have access to your badge for any purpose. Lending badges to others for access to the meeting is strictly prohibited.
- Have your room key out and ready when entering your hotel room. Fumbling in an attempt to locate it in either a pocket or purse outside your door could be a security risk.
- Never give a stranger your room number.
- Upon check-in to your room, note where the nearest fire exits are, so you know in which direction to go quickly in case of a fire emergency. Remember – smoke rises, so if necessary, while exiting, get as close to the floor as possible when there is heavy smoke present.
- When out in an urban area, it is advisable to travel in groups or pairs.
- Looking down and concentrating on a mobile device while texting or listening to music through earbuds can be a hazardous activity. Doing so while you are attempting to cross a street, get on or off an escalator, walk in a crowd, or make your way through an exhibit area can all be harmful to your safety and the safety of others. Recently, there have been many incidents of distracted meeting attendees who have attempted to walk up the down escalators or walk down the up escalators in our meeting venues.
- Please take advantage of the ample seating provided in our meeting facilities in order to use your mobile device(s) in a calm setting, so that you have a safe, enjoyable experience at AIChE meetings.
- Avoid excessive consumption of alcohol. Alcohol reduces inhibitions and impairs the capacity to reason – a perfect formula to make you a target for unscrupulous behavior.

This security advisory was implemented by AIChE's Executive Board of the Program Committee (EBPC) with your safety in mind. We welcome any other suggestions you may have to help attendees have a safe and pleasant experience at our meetings.



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