



# CCIB Workshop on Technical Innovation in Traditional Plant Medicine



**Wednesday, October 13, 2021  
at 14:00 (Beijing time, GMT+8)**

## Background

On April 14, 2021, Tianjin Institute of Industrial Biotechnology (TIB), Chinese Academy of Sciences (CAS) and Commission on Science and Technology for Sustainable Development in the South (COMSATS) established the COMSATS Joint Center for Industrial Biotechnology (CCIB). As one of the International Joint Centers of the National Center of Technology Innovation for Synthetic Biology with TIB as its host institute, the CCIB is aimed to build an open, shared, and innovative cooperative platform thus to promote the development of biotechnology and bioindustry in the member states and the “Belt and Road” countries.

According to the tasks of the CCIB, a series of workshops would be organized in various areas such as biomedicine, bio-agriculture, future food, biomaterials, biochemicals and bioenergy. The workshop is aimed to provide a platform for interaction to learn from each other by sharing research progress and capacity, and thus to build a working team to promote high level Joint R&D for the sustainable development.

## Introduction

Medicinal plants have been used for thousands of years. Many natural products from plants show great pharmacological activities and are major sources for the discovery of new drugs nowadays. It has also played a prominent role in the treatment of COVID-19 in the past two years. However, the supplies of some plant metabolites cannot satisfy the requirements of markets.

The CCIB is organizing a Workshop on October 13 to discuss Sustainable Development Goal 3 with reference to Technical Innovation in Traditional Plant Medicine for Good Health and Well-Being. In this context, the meeting will mainly set the following topics: discovery of new compounds and biosynthesis pathway; production of high-value natural compounds; novel application of natural products.

## Virtual Platform

VooV Meeting (download from its official website: <https://voovmeeting.com>), ID: 336 136 502

- Ms. Qianqian Chai, Coordinator of CCIB, [chai\\_qq@tib.cas.cn](mailto:chai_qq@tib.cas.cn)
- Prof. Huifeng Jiang, Coordinator of R&D Group on Biomedicine of CCIB, [jiang\\_hf@tib.cas.cn](mailto:jiang_hf@tib.cas.cn)

## Speakers



**Prof. Dr. M. Iqbal Choudhary**  
Director, International Center for Chemical and Biological Sciences, University of Karachi



**Prof. Janar Jenis**  
Director of the Research Center for Medicinal Plants, Al-Farabi Kazakh National University



**Prof. Jingwen Zhou**  
Jiangnan University



**Prof. Huifeng Jiang**  
Tianjin Institute of Industrial Biotechnology (TIB), CAS



**Prof. Meng Wang**  
TIB, CAS

**For more information, please contact:**

# Program

## 14:00-14:05 - Introductory Remarks

Prof. Dr. Jibin Sun  
Director of CCIB and Deputy Director-General of TIB

## 14:05-14:10 - Opening Remarks

Dr. Akhtar Nazir  
Executive Director COMSATS and Federal Secretary,  
Ministry of Science and Technology, Pakistan

## 14:10-14:40 - Keynote Speech

**Traditional Chinese and Unani Medicine---Nexus  
for Human Beings**  
Prof. Dr. M. Iqbal Choudhary

## 14:40-15:40 - Invited Speeches (15 minutes for each)

**Phytochemical Investigation of Medicinal Plants  
from Kazakhstan**  
Prof. Jenis Janar

**Discovery of Bioactive Triterpenoids Biosynthetic  
Pathway in Mushroom**  
Prof. Meng Wang

**Towards the Customized Production of Flavonoids  
in Microorganisms**  
Prof. Jingwen Zhou

**Genome Sequencing and Natural Product  
Biosynthesis**  
Prof. Huifeng Jiang

## 15:40-16:20 - Panel Discussion

## 16:20-16:30 - Closing Remarks

### Prof. Dr. M. Iqbal Choudhary

Prof. Dr. M. Iqbal Choudhary is the Director and Professor of Bioorganic and Natural Product Chemistry at the International Center for Chemical and Biological Sciences (H. E. J. Research Institute of Chemistry and Dr. Panjwani Center for Molecular Medicine and Drug Research). He is also serving COMSTECH as Coordinator General. He is recently appointed as a UNESCO Chairholder.

Prof. Choudhary has, since 1990, been among the world leaders in the field of natural product chemistry, and has made pioneering contributions in the discovery of novel natural products. He has discovered many potent anti-epileptic and anti-leishmanial compounds from indigenous medicinal plants that are under clinical trials. His contributions to reverse bacterial resistance to antibiotics represent seminal contributions in this important field. He leads the developing world's finest research center of natural product chemistry (HEJ Research Institute of Chemistry) since 2002, and has trained hundreds of young researchers, especially women, from across the Afro-Asian region in natural product chemistry. He has established several research centers in Pakistan, and helped to setup research units in Africa, and South and Central Asia. His scientific, and capacity building contributions have been recognized by prestigious national and international awards and honors, and fellowships of several academies of science including Fellow of The Academy of Sciences for the Developing World, Islamic Academy of Sciences, and Chemical Society of Pakistan. Prof. Choudhary has 1,250 publications (Citations 32405, h-index 75) in the fields of organic and bioorganic chemistry, along with 57 international patents (40 US Patents), 68 books and 40 chapters in books, published by major U.S. and European presses. On the basis of his researches, 95 students have been awarded Ph.D. degrees in various areas of natural product and bioorganic chemistry.

### Prof. Janar Jenis

Prof. Janar Jenis is the Director of the Research Center for Medicinal Plants of Al-Farabi Kazakh National University. She is a leading scientist in the field of chemistry and technology of natural compounds with more than 20 years' experience. Her scientific interests are related to the study of developing of new smart molecules, which isolate from Kazakh medicinal plants by using methods spectroscopic and analytical techniques, biological evaluation and modification of the drug lead natural products. She is a member of the American Society of Pharmacognosy (ASP), and the Asian natural products Association (ASNP).

### Prof. Jingwen Zhou

Prof. Jingwen Zhou received his Ph.D. in Fermentation Engineering at Jiangnan University in 2009, his M.S. in Microbiology at Huazhong Agricultural University in 2006 and a B.A. in Food Science and Technology at Huazhong Agricultural University in 2003. He is a Professor of Lab of Biosystems and Bioprocess Engineering in the Science Center for Future Foods at Jiangnan University. His research areas include: metabolic engineering of microorganisms for the efficient production of plant natural products (flavonoids and terpenes) and vitamins (B3, B12, C, D2, D3), development of strategies related to carbon-nitrogen balance regulation, fine-tuning of metabolic pathway and high-throughput screening. He has over 120 peer reviewed publications and invited reviews, and awarded with National Award for Technological Invention 2nd Prize, WIPO-SIPO Award for Chinese Outstanding Patented Invention, and ACS membership award.

### Prof. Huifeng Jiang

Prof. Huifeng Jiang received his Ph.D. from Kunming Institution of Zoology, Chinese Academy of Sciences, and was a postdoctoral fellow at Division of Nutritional Sciences in Cornell University. Now he is a principle investigator in Tianjin Institute of Industrial Biotechnology, Chinese Academy of Sciences (TIB-CAS). Dr. Jiang's research focuses on identifying and designing novel biological parts. By combining omics technology and synthetic biology, he develops new platforms to dig new genes for producing plant natural compounds and to design novel enzymes for one-carbon utilization. Until now he has applied 20 patents and published more than 40 papers in *Nature Communications*, *ACS Synthetic Biology* and so on.

### Prof. Meng Wang

Prof. Meng Wang received his Bachelor's degrees in both Chemistry and Bioinformatics from Zhejiang University in 2005. He received his Ph.D. degree in Chemistry from Syracuse University in 2009. He joined Professor Huimin Zhao's Lab in University of Illinois Urbana-Champaign as a postdoc during 2010-2015. And he finally became an independent PI in Tianjin Institute of Industrial Biotechnology, Chinese Academy of Science in 2015. His research interests focused on lab automation for industrial biotechnology and natural product discovery. He has published 32 papers in journals such as *Nature Communications*, *Trends in Biotechnology*, *ACS Catalysis* and *Metabolic Engineering*. He also have 9 patents.