

International Conference of the Modernization of Chinese Medicine & Health Products

國際現代化中醫藥及健康產品會議

11-12 August 2022 Hong Kong Convention and Exhibition Centre

Traditional Chinese Medicine Based New Drug Discovery and Clinical Studies

中藥創新藥物研發及臨床研究

Event Report

Heavy-weighted Speakers Gathering at the Conference

Dr Libby LEE Ha Yun, Under Secretary for Health, HKSAR was the Guest of Honour who attended physically and gave her speech, while Prof Huang Luqi, Vice Commissioner, National Administration of Traditional Chinese Medicine recorded his speech for broadcast online at the ceremony.

17 speakers invited from the Australia, Austria, Germany, Japan, Mainland China and Hong Kong and United States shared the latest research findings on TCM Based New Drug Discovery and Clinical Studies:

Session 1: Keynote Speech

1. Prof Yung-Chi Cheng, Henry Bronson Professor of Pharmacology and Medicine, Yale University (United States)
2. Professor Zifeng Yang, Associate Dean, The First Affiliated Hospital of Guangzhou Medical University, Guangzhou Institute of Respiratory Health (Mainland China)
3. Professor Kwok-Fai So, Jinan University, Guangdong-HongKong-Macau Institute of CNS Regeneration (Mainland China)

Session 2: From CM clinical studies to new CM products

4. Professor Ka Kit Hui, Director, UCLA Department of Medicine (United States)
5. Professor Rudolf Bauer, Institute of Pharmaceutical Sciences, University of Graz, Graz, Austria (Austria)
6. Professor Thomas Efferth, Johannes Gutenberg University, Institute of Pharmaceutical and Biomedical Sciences, Mainz, Germany (Germany)
7. Dr Li Yang, Shanghai University of Traditional Chinese Medicine (Mainland China)

Session 3: R&D on Chinese Medicines

8. 杭州師範大學醫學院整合藥學院院長 謝恬教授 (Mainland China)
9. Dr Chan Kam Wa, Department of Medicine, School of Clinical Medicine, the University of Hong Kong (Hong Kong)
10. Professor Yang Dongzi, Sun Yat-Sen Memorial Hospital, Sun Yat-Sen University (Mainland China)
11. Professor Dennis Chang, Director, NICM Health Research Institute, Western Sydney University (Australia)

Session 4: Product Commercialization & Successful Cases Sharing

12. Professor Bian Zhao Xiang, Associate Vice-President (Chinese Medicine Development), Hong Kong Baptist University (Hong Kong)
13. Professor Li Zhang, Shanghai University of Traditional Chinese Medicine (Mainland China)
14. Dr Xiaoyu Ji, R&D project coordinator, Purapharm Corporation Ltd (Hong Kong)
15. Mr Chen Lizuan, Director, Zhejiang Tianhuang Medicinal Plant Pharmaceutical Co.,Ltd (Mainland China)
16. Dr Jin Tatsuzaki, President & CEO, TOKIWA Phytocamical Co., LTD (Japan)
17. Professor Xu Hong Xi, Distinguished Professor, Shanghai University of Traditional Chinese Medicine (Mainland China)

Engaging Hybrid Solutions for Chinese Medicine Professionals

The Conference was conducted in hybrid format, running simultaneously in physical and online channels, to offer convenience and flexibilities to Chinese Medicine Practitioners and Healthcare Professionals who might not be able to attend the event physically for whole day.

To facilitate knowledge exchanges and interactions between audiences and speakers both online and in-person, online audience were encouraged to raise questions via Zoom, while Pigeonhole was introduced for onsite Q&A for the first time. The overall execution was smooth and received close to 50 questions to speakers.

Key Takeaways of selected presentations

Prof Yung-Chi Cheng, Henry Bronson Professor of Pharmacology and Medicine, Yale University United States

Aging-related diseases are complex and heterogeneous. A systems biology paradigm that utilizes polychemical mixtures acting on multiple targets may lead to new breakthroughs towards preventing and treating complicated diseases.

To advance experience-based traditional medicines (such as TCM) to become evidence-based medicines may be helpful, key issues to be addressed, include: 1) high-quality and consistent preparation of drug product, 2) well-designed clinical trials 3) mechanisms of action knowledge.

The development of the systems biology cancer drug YIV-906 is an example of how a botanical drug could be developed – using mechanism-based quality control and conducting rigorous clinical studies.

With collaboration and the convergence of the knowledge and best practices of Western and Eastern medicines, the future of medicine could be WE Medicine.

Prof Kwok-Fai So, Jinan University, Guangdong-HongKong-Macau Institute of CNS Regeneration (Mainland China)

Subthreshold depression is a highly prevalent condition in adolescents who are at high risk for developing major depressive disorder. To investigate the clinical efficacy and safety of Lycium barbarum polysaccharide (glycopeptide) (LbGp) for treating subthreshold depression in adolescents, we conducted a randomized, double-blind, placebo-controlled trial (RCT) with 29 adolescents with subthreshold depression recruited at The Fifth Affiliated Hospital of

Guangzhou Medical University. The participants were randomly assigned to groups where they received either 300 mg LbGp (n = 15) or a placebo (n = 14) for 6 successive weeks. No side effects related to the intervention were reported in either group. Based on Hamilton Depression Scale (HAMD-24), the LbGp group performed significantly better in cognitive impairment, retardation and hopelessness.

Professor Ka Kit Hui, Director, UCLA Department of Medicine

The COVID-19 pandemic has provided a golden opportunity for the development of Chinese herbal medicine in the biomedically dominant global health care systems. Some insights from clinical research ranging from randomized controlled trial, whole systems research to implementation approach, and practical use will be shared.

Professor Rudolf Bauer, Institute of Pharmaceutical Sciences, University of Graz, Graz, Austria

Despite its origin in China, Chinese herbal medicine (CM) it is now used by various ethnic groups in all continents. Recent studies have demonstrated recurrent associations between specific taxa in the gut microbiota and ethnicity, which, however, may be related to the alpha but not beta diversity of gut microbiota. Gut bacteria are producing signalling molecules that regulate our body functions. Dysbiosis can lead to serious diseases, like inflammation, obesity, asthma, diabetes, and even cancer. Therefore, the individual gut microbiome is of high relevance for the activity of Chinese herbal medicine. Relevant species, which can be influenced by CM, are *Faecalibacterium*, *Prasnitzii*, *Akkermansia muciniphila* and *Fusobacterium* sp.

Dr Chan Kam Wa, Department of Medicine, School of Clinical Medicine, the University of Hong Kong (Hong Kong)

Diabetic kidney disease (DKD) is the leading cause of kidney failure globally. The kidney function decline results in dialysis, transplantation, and mortality. In our randomized multi-center pragmatic clinical trial (SCHEMATIC, NCT02488252), we randomized 148 DKD patients with macroalbuminuria to receive an add-on protocolized *Rehmannia-6-* (also known as *Liu-wei-di-huang-wen*) based Chinese medicine (CM) treatment program or standard care alone. After 48 weeks, the decline of estimated glomerular filtration rate (a measure of kidney function) and risk of hypoglycemia (a common and concerning adverse event) was significantly less with add-on CM. Further biochemical analysis showed that the TNF signalling (inflammation) pathway was associated with the treatment effect and the insulin resistance was lowered with CM treatment. These results indicate that 48 weeks of add-on *Rehmannia-6-* based CM treatment independently leads to significantly better preservation of kidney function and could be a useful strategy in the multidisciplinary management of DKD.

Dennis Chang, NICM Health Research Institute, Western Sydney University, NSW, Australia

Vascular dementia (VaD) is the second most common cause of dementia. Currently there are no approved pharmaceutical medicines for VaD. We have been working with Xiyuan Hospital, China Academy of Chinese Medical Sciences to develop a novel herbal formulation, *Sailuotong* (SLT) for VaD. Conventional pharmaceutical and analytical chemistry techniques were used to optimise and standardise the herbal extracts. The dosage regimen and mechanisms of action were determined in a series of preclinical studies. Phase I and II clinical trials were conducted to determine tolerability, clinical dose, efficacy and safety of SLT. In this presentation, the development process of SLT and the results of the research will be briefly discussed.

Professor Bian Zhao Xiang, Associate Vice-President (Chinese Medicine Development), Hong Kong Baptist University (Hong Kong)

Chinese herbal medicine has been widely used for the gastrointestinal diseases, including but not limited to functional diseases, such as functional constipation, dyspepsia, irritable bowel syndrome and organic diseases such as ulcerative colitis (UC) and colon cancers. These methods provide a support to the existing management strategy.

The questions are commonly faced by the Chinese medicine practitioners and researchers are whether the Chinese herbal medicine is effective and safe for the diseases, and if yes, how the Chinese herbal medicine takes effects. Also, another common question is whether the effects in one single patient could be repeated in a group of patients with same syndrome. To answer these questions, there is a need to go through the clinical trial following evidence-based medicine approach, from trial protocol design, registration, implementation, to reporting and data transparency to assess the efficacy and safety. During these trials, it is crucial too to follow the Chinese medicine theories during the trial process, from design to implementation. Treatment based on syndrome differentiation and holism should be followed too. These will facilitate the promotion of Chinese medicine to the public. Based on the efficacy assessment, the mechanism behind could thoroughly investigated. Further, these research can help to develop such Chinese Medicine formula into a new drug including botanical drug thus benefit more patients.

Professor Li Zhang, Shanghai University of Traditional Chinese Medicine (Mainland China)

Red ginseng and Asini Corii Colla (Ejiao) both are commonly used rare Chinese medicinal materials. Red ginseng has been commonly used in clinical practice to fight fatigue and improve immunity, while Ejiao is mostly used in patients with blood deficiency and gynecological diseases. Although these kinds of medicinal materials have been used for a long time, there have been no systematic clinical studies until now. In our previous study, we evaluated the clinical efficacy and safety of red ginseng and Ejiao using the randomized, double-blind, placebo-controlled clinical trials. The results showed that red ginseng could improve fatigue-related symptoms in patients with deficiency syndrome. Ejiao could significantly alleviate the blood deficiency syndromes, as well as improve the quality of life in these people. The safety evaluation showed that there was no significant change in the fire-heat symptoms score or other safety parameters. Our experiments provide the scientific and theoretical basis for the clinical application of rare Chinese medicinal materials.

Dr Jin Tatsuzaki, President & CEO, TOKIWA Phytocamical Co., LTD

SIRTMAX® is a *Kaempferia parviflora* extract with potent anti-aging effect via SIRT1 activation. Through cutting-edge research, the standardizing component of SIRTMAX®, 3,5,7,3',4'-pentamethoxyflavone (PURESIRTMAX®) was the first compound confirmed to directly activates SIRT1 and is six-time stronger than resveratrol.1) The efficacy of SIRTMAX® also is proven by clinical trials, where it increases SIRT1 mRNA and improves several aging-related parameters. Interestingly, SIRTMAX® also works synergistically with NMN, insinuating a promising future development. Superseding NMN and resveratrol, SIRTMAX® is fast becoming the new anti-aging ingredient. Commercialized worldwide and well-received in USA, the success of SIRTMAX® is undoubtedly benefited from the abundant scientific evidences.

Well Recognised Event Quality by Attendees

A post-event questionnaire was conducted with around 800 respondents. 99% respondents rated the ICMCM as average to excellent and found it very helpful/ useful to their work.

For more information or any inquiries about the Conference, please contact icmcm2022@hktcd.org or (+852) 1830 668.

*This material/event is funded by the Professional Services Advancement Support Scheme of the Government of the Hong Kong Special Administrative Region.

*此物品/活動由香港特別行政區政府的專業服務協進支援計劃資助。

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