



中药全球化联盟

15th Meeting of Consortium for Globalization of Chinese Medicine (CGCM)

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## Herbal Resources III

### (Identification, Formulation and Manufacturing)

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**Chairman:** Prof. Suqin Sun, Tsinghua University  
**Co-Chairman:** Prof. Nianping Feng, Shanghai University of TCM  
Prof. Abraham Chan, PuraPharm International (HK) Ltd  
**Panelist:** Prof. Hubiao Chen, Hong Kong Baptist University

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### Summary

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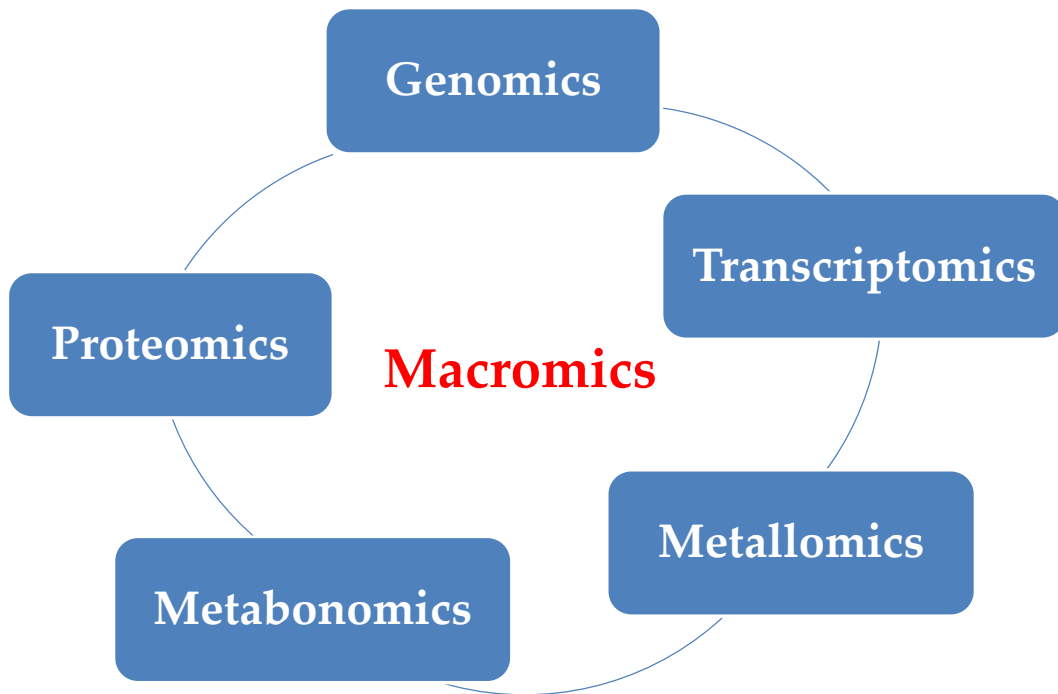
- 18 Abstracts accepted (128~145)
- Regions: Beijing, Chongqing, Guangzhou, Hong Kong, Jiangxi, Macau, Thailand, Shanghai, Taipei and Zhejiang
- Poster: 10
- 7 short lectures have been presented and discussed
- Participants: ~80
- Discussion time: Aug. 24, 4:30~6:45 pm
- Topics: Identification, formulation & manufacturing



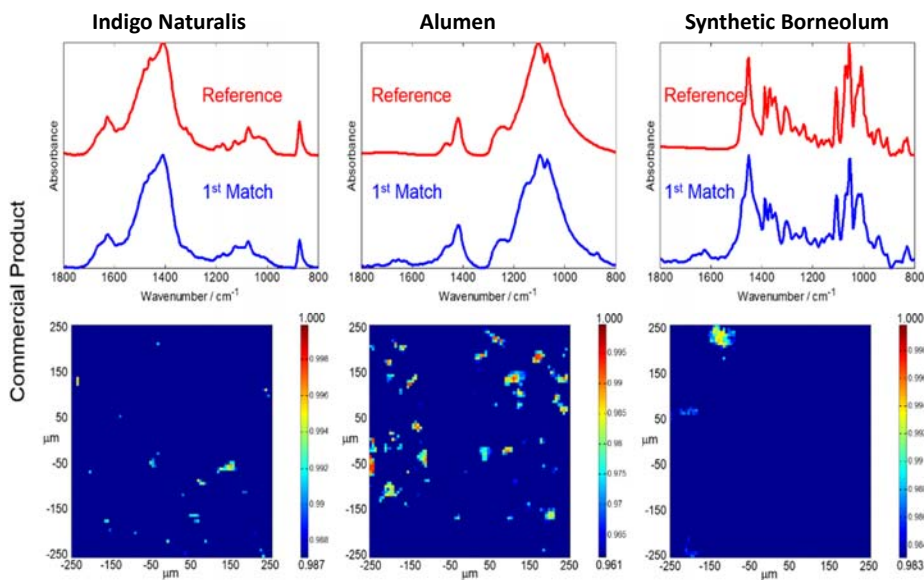
## Identification

No	Title	Institute	Corresponding author
132	Infrared Spectroscopic " Macromics "	Tsinghua University	Suqin Sun
131	Direct and Simultaneous Detection of Organic and Inorganic Ingredients in Herbal Powder Preparations by FT-IR Microspectroscopic Imaging	Tsinghua University	Qun Zhu
144	Effects of Taiwanese Endemic Plants on Free Radical Scavenging Activities and Chemical Contents Analysis	Taipei Medical University	Mei-Hsien Lee
138	Screening for Potential $\alpha$ -Glucosidase Inhibitors in Oolong Tea by Ultrafiltration LC-TOF-MS	Hong Kong Baptist University	Tao YI
135	The Optimization of Determination for Astragaloside IV in Astragali Radix	Jinan University	Hui Cao
137	Full Component Quantitative Analyses of YinHuang Drop Pill	Hong Kong Baptist University	Quan Bin Han

# Concept of " Macromics "



**Organic and inorganic ingredients in herbal powder preparations could be directly and simultaneously detected of by FT-IR microspectroscopic imaging**



**Positive result!**

## Effects of Taiwanese endemic plants on free radical scavenging activities and chemical contents analysis



### ➤ Heavy metal contents of Taiwanese endemic plants

Samples	Cd (ppm)	Pb (ppm)	As (ppm)	Hg (ppm)	Cu (ppm)
LRS	ND	ND	ND	ND	8.02
LRL	ND	ND	ND	ND	2.28
MDS	0.67	15.25	ND	ND	6.64
MDL	0.53	ND	ND	ND	5.88

**ND: Non-detected**

**Testing method: Taiwan Herbal Pharmacopeia, USEPA SW-846 M3051**

Cd (Cadmium) contents of MDS and MDL were more than the standard amount of 0.10 ppm. Pb (Plumbum) content of MDS was more than the standard amount of 2.00 ppm. Other heavy metal contents were not exceeded.

## Formulation

No	Title	Institute	Corresponding author
140	Small-sized mPEG-PLGA Nanoparticles with Sustained Release for Enhanced Brain Uptake and Anti-Parkinsonian Efficacy of Schisantherin A	University of Macau	Ying Zheng
143	Speranskia Tuberculata Essential oil-mediated Ethosomes Increase Paeoniflorin Absorption in the Synovium: Optimization, Characterization, and Evaluation In Vitro and In Vivo	Shanghai University of Traditional Chinese Medicine	Nianping Feng
141	Nanostructure Lipid Carriers Coated with Bioadhesive Polymer for Buccal Drug Delivery	Naresuan University	Kavee Srichaivatana
142	Effect of Clay Minerals on Permeability of Mangosteen Peel Extracts Solid Dispersions Across Porcine Epidermis	Naresuan University	Suchiwa Pan-On

# Small-sized mPEG-PLGA Nanoparticles with Sustained Release for Enhanced Brain Uptake and Anti-Parkinsonian Efficacy of Schisantherin A

## In vivo plasma and brain pharmacokinetic

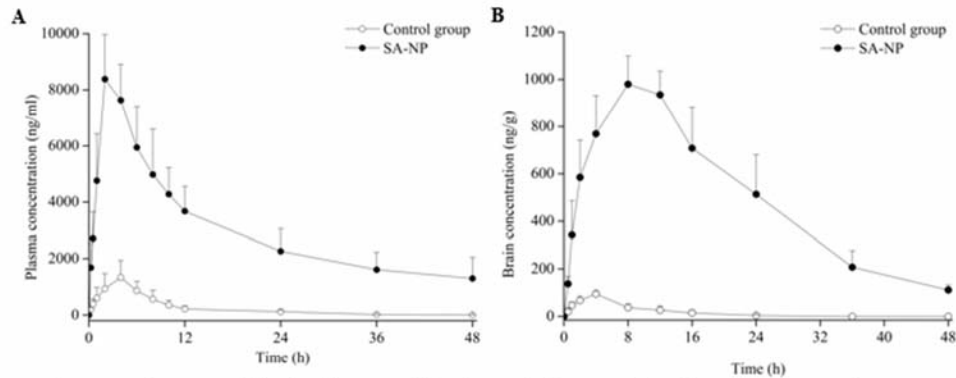


Figure 6 Plasma and brain pharmacokinetic study in rats. (A) Plasma concentration-time profile (n=7); (B) Brain concentration-time profile (n=4)

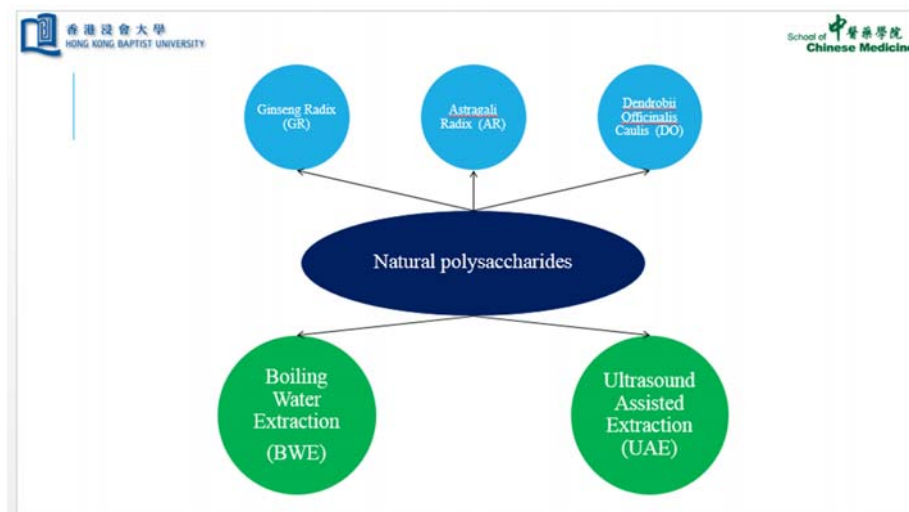
After oral administration of SA-NP (4 mg/kg), the drug was absorbed quickly and  $C_{max}$  was reached at 2 h.

The brain concentrations demonstrated a lag time, and the peak concentration of SA was reached at 8 h after dose.

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## Manufacturing

No	Title	Institute	Corresponding author
136	Ultrasound-assisted extraction differently impacts polysaccharides from herbal medicines	Hong Kong Baptist University	Hubiao Chen



# Ultrasound-assisted extraction differently impacts polysaccharides from herbal medicines

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	IF	HOW
UAE impacts polysaccharides from herbal medicines	Yes	➤ By different extraction conditions (quantitatively) and structural properties (qualitatively)
UAE and BWE-obtained polysaccharides from herbal medicines are different	Yes	➤ By ultrasonic treatment <ul style="list-style-type: none"><li>• Structural degradation</li><li>• Stronger extraction capacity</li></ul>

