

Zhengtao Wang Shanghai University of TCM CGCM Shanghai

### 10 CGCM Member Institutes in Shanghai

- Shanghai University of TCM / Shanghai Academy of TCM上海中醫藥大學/上海市中醫藥研究院 (SHUTCM)
- Shanghai R&D Center for Standardization of Chinese Medicines上海中藥標準化研究中心(SHCSCM)
- School of Pharmacy, Fudan University 復旦大學藥學院 (FUDAN)
- School of Pharmacy ,Shanghai JiaoTong University 上海交通大學藥學院 (SJTU)
- School of Sciences and Technology, Tongji University 同濟大學生命科學與技術學院 (TONGJI)
- School of Pharmacy, East China University of Science and Technology華東理工大學藥學院(ECUST)
- Modern Research Center for TCM, Second Military Medical University 第二軍醫大學現代中藥研究中心(SMMU)
- Shanghai Research Center for TCM Modernization, Shanghai Institute of Materia Medica,CAS,中國科學院上海藥物研究所,上海中藥現代化研究中心 (SIMM)
- Institute of Pasteur of Shanghai ,Chinese Academy of Sciences中國科學院上海巴斯德研究所
- Shanghai PharmValley Innovation Institute of Biomedicine上海藥谷生物醫藥創新研究院 (New member)



















### **Major Research Fields in TCM**

□ Quality Evaluation and Standardization of Chinese Medicines
 □ Natural Products Chemistry
 □ Pharmacology TCM formulae, herbs and individual compounds
 □ Pharmaceutics of TCMs
 □ Biotechnology of medicinal plants and natural products
 □ Innovative medicines development and preclinical studies
 □ TCM informatics (databases, target prediction, etc)
 □ healthcare products
 □ Technical service and platforms

## **On-going Research Grants/Fundings**

Provincial and Ministerial level or above: > 600
□ National Key Basic Research Program (973): 4
□ National High Technology Research and Development Program (863): 4
□ Major national R& D project: 1
□ NSFC: >400

## 2016 NSFC 9 Universities/Institutes in Shanghai ranked top 100 in China

Rank	University / Institute	Project granted	Yten thousand
1	上海交通大学 SJTU	901	50,796.630
6	复旦大学 Fudan	551	28,371.960
9	同济大学 TongJI	426	22,198.410
27	第二军军医大学 SMMU	212	9.865.700
46	上海大学 SHU	154	7,802.800
49	华东师范大学 ECNU	147	8,561.000
57	中国科学院上海生命科学研究院 SIBS, CAS	134	10,127.500
77	华东理工大学 ECUST	112	7,122.500
80	上海中医药大学 SHUTCM	106	3,859.850

SHUTCM ranked No. 1 in TCM Universities/Institutes for the last 5 years

### **Recent Progress in TCM**

- New drug R & D
- Newly established national/international criteria of TCMs

### New drug R & D

■ Shanghai PharmValley Innovation Institute of Biomedicine上海藥穀生物醫藥創新研究院

Ginsenoside Rh2人參皂苷Rh2: New antitumor drug, in preclinical research
Puruixiao capsule 普銳消膠囊: New drug of extract for treatment of prostatitis
clinical research

- SHUTCM(上海中醫藥大學)
  - 3 New drugs licensed (TCM formulae)
  - 6 Approved for clinical trials
- SMMU(第二軍醫大學)

Four new drugs in clinical trials

# Newly established national/international criteria of TCMs

■ Chinese Pharmacopoeia (2015 version)

7 Monographs adopted:

BROUSSONETIAE FRUCTUS 楮實子,SALVIAE MILTIORRHIZAE RADIX ET RHIZOMA丹參,GANODERMA 靈芝,MARGARITA 珍珠,MARGARITIFERA CONCHA 珍珠母,LAMINARIAE THALLUS or ECKLONIAE THALLUS 昆布,SARGASSUM 海藻

- DS Monographs or HMC Monographs for U.S. Pharmacopoeia
  - 9 Monographs adopted:

SALVIAE MILTIORRHIZAE RADIX ET RHIZOMA(丹參), GANODERMA(靈芝), NOTOGINSENG RADIX ET RHIZOMA(三七), SCHISANDRAE CHINENSIS FRUCTUS(五味子), GINSENG RADIX ET RHIZOMA RUBRA(紅參)

- European Pharmacopoeia
  - 2 Monographs adopted:

Platycodonis Radix (桔梗) and Uncariare Ramulus cum Uncis (鉤藤)

■ On-going work: USP (22), EUP (38), ISO international criteria (3)

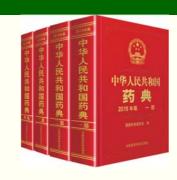
# Series books for Chinese Pharmacopoeia 2015

■ 中國藥典(2015)英文版

ChP 2015, English Edition

Published in 2015

Editor-in-Chief



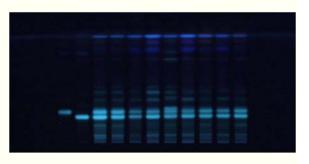
■ 中國藥典(2015年版)中藥材薄層色譜彩色圖集 TLC Atlas of Crude Drugs in *ChP*(2015) To be finished in 2016 Editor-in-Chief



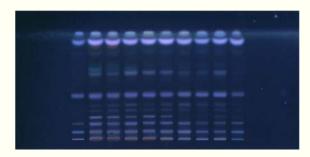
### **Examples of TLC authentication in progress**



马勃 LASIOSPHAERA and CALVATIA



枳壳 AURANTII FRUCTUS

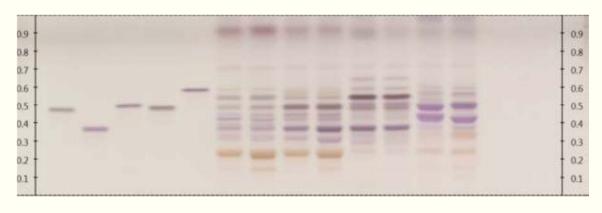


山药 DIOSCOREAE RHIZOMA



枇杷叶 ERIOBOTRYAE FOLIUM

# A Harmonized TLC authentication of herbs derived from *Panax* species



◆ 人 参 Asian Ginseng
◆ 西洋参 American Ginseng
◆ 三 七 Notoginseng
◆ 竹节参 Panax japonicus

## **Academic Exchange (SHUTCM)**

USA

Yale, City of Hope, Kansas: Staffs/Postdoctors/Post graduates training

• UK

London Metropolitan University: BS & MS degree Northumbria University: Nursing (BS degree)

Westminster University: Acupuncture and herbal medicine,

France

University of Paris Descartes: MS degree in Pharmacy

Finland

East Finland University: Student exchange

Malaysia

**International Medical University: Acupuncture (BS degree)** 

Thailand

Huachiew Chalermprakiet University: Traditional Chinese medicine (Bachelor)
Ministry of Health: Acupuncture training for medical doctors

Japan

Jikei Group: Traditional Chinese medicine (MS Degree)

### **Academic Collaboration (SHUTCM)**

- USA University of California, San Diego
   Clinic Research of Treatment of Liver Fibrosis of Hepatitis C
   Patients by Fuzhenghuayu Capsule
- UK Oxford University TCM classical literature
- Finland East Finland University, European Institute of TCM
- WHO Database for safety of herbs, ICD 11
- ISO Standardization of TCM

# International TCM Training Programs sponsed by SHUTCM

- Summer School:
  - Miraculous Tour Chinese Medicine Exploration探索中医的神奇之旅
- Training Class of TCM standardization commissioned by WHO
   Two months training program for staffs from North Korea: Quality control of TCM
- Training Class of TCM standardization commissioned by ChP commission
  - **TLC Authentication of herbal medicines**

### **Academic Exchange and Collaboration**

#### Collaboration among institutes in Shanghai Region

- Network pharmacology and key technology research on Fuzheng Huayu Prescription resisting hepatic fibrosis mechanism 扶正化瘀複方抗肝纖維化網路藥理學及關鍵技術研究 (Tongji and SHUTCM)
- Objectification Research of TCM Diagnostics 四診客觀化研究(SHUTCM, FUDAN, ECUST, SJTU)
- Metabonomics and Homeostasis of T cells T細胞亞型代謝組學與免疫動態調控 (Institute Pasteur of Shanghai and SMMU)
- Screening and Mechanistic Analysis of TCM Small Molecules on Treg針對FOXP3翻譯後修飾 酶類活性調節的中藥小分子篩選及機制研究 (Institute of Pasteur of Shanghai and SHUTCM)
- Research and development of the hospital preparation of black beans empirical formula黑料豆經驗方醫院製劑研發、"Screening and research on the synergistic antitumor activity of Qilin polysaccharide and chemotherapeutic agents 芪量多糖增效化療藥物的篩選及增效途徑深入研究"( Shanghai PharmValley Innovation Institute of Biomedicine and Longhua Hospital Affiliated to Shanghai University of TCM)

## **Academic Exchange and Collaboration**

#### International conferences/symposiums of TCM

October 21-23, 2015

Shanghai International Conference on Traditional Chinese Medicine and Natural Medicine 上海中药与天然药物国际大会

- Shanghai Institute of Materia Medica, CAS,
- Second Military Medical University,
- Shanghai University of TCM
- May 29-30, 2016

9th CSP-KSP-JSP Joint Symposium on Pharmacognosy 第九届中韩日生药学研讨会

- Shanghai University of TCM ,
- Shanghai Regional Union of Consortium for Globalization of Chinese Medicine (CGCM Shanghai)

### **New Member Introduction**

Shanghai PharmValley Innovation Institute of Biomedicine (SPVIB)
上海藥谷生物醫藥創新研究院

SPVIB is a private non-profit research institution established by Prof. Yongzheng Hui , a well-known scientist, and Shanghai Pharm Valley Corporation in 2009.



SPVIB will replace the membership of Shanghai Innovative Research
Center of Traditional Chinese Medicine (上海中藥創新研究中心) in CGCM.

Address: 998 Halley Road, Shanghai High-Tech Park, Shanghai, China 上海藥谷創新園區地址:上海張江高科技園區哈雷路998號

# Shanghai PharmValley Innovation Institute of Biomedicine 上海藥谷生物醫藥創新研究院

#### **Platform**

□ Pudong technology platform of pharmaceutical processing research

浦东药学工艺研究科技公共服务平台

□ Shanghai professional technical service platform of biological medicine special synthetic process

上海市生物医药特种合成工艺专业技术服务平台

# Shanghai PharmValley Innovation Institute of Biomedicine 上海藥谷生物醫藥創新研究院

### **Major fields in TCM**

□TCM-based R&D of new drugs and medicinal products

基于中医药为源头的现代创新中药的研究和开发

□ Development of healthcare products by integrating modern life science technologies and TCM theories and practice

基于中医养生理论和中药材的健康产品的研究和开发

□ Technical service and TCM project management for government, universities & institutions, enterprises and investment funds

面向政府、大学、研究机构、企业和投资基金等,开展中医药项目综合服务(技术服务)和项目管理



## Thanks for your attendance

Shanghai R&D Center for Standardization of Chinese Medicines,
Institute of Chinese Meteria Medica,
Shanghai University of Traditional Chinese Medicine
CGCM Shanghai











