The October 2020 Newsletter of The GP-TCM Research Association

Contents of the GP-TCM RA Newsletter October 2020

Acknowledgements: The editors would like to thank Dr **Chi Zhang** (Beijing), Prof **Clara Lau** (Hong Kong), Prof **Hubiao Chen** (Hong Kong), Prof **Jiqing Liu** (Shenzhen), Prof **Michael Heinrich** (London), Prof **Monique Simmonds** (Kew), Prof **Pierre Duez** (Mons), Prof **Rudolf Bauer** (Graz), Dr **Taiping Fan** (Cambridge), Prof **Vivian Wong** (Hong Kong), Prof **Xuanbin Wang (**Hubei), Prof **Zhongzhen Zhao** (Hong Kong), and the **WJTCM Editorial Office** (Beijing) for their great contributions.

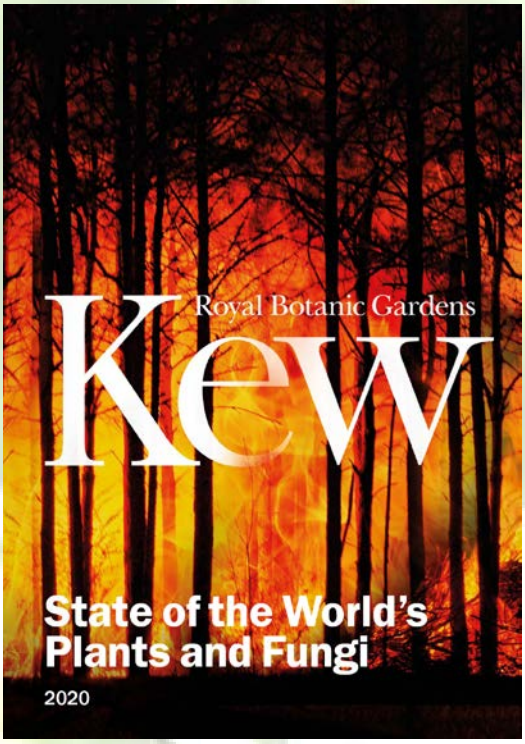
Editor-in-chief: Aiping Lu (lap64067611@126.com); executive editor: Ping Guo (s193231@hkbu.edu.hk); consulting editor: Qihe Xu (qihe.xu@kcl.ac.uk).

The October 2020 Newsletter of
The GP-TCM Research Association

Highlights on Academic Achievements of GP-TCM RA Members

1. ***State of the World's Plants and Fungi 2020*****.** Royal Botanic Gardens, Kew. DOI: https://doi.org/10.34885/172

Kew's State of the World's Plants and Fungi project provides assessments of our current knowledge of the diversity of plants and fungi on Earth, the global threats that they



Contents

face, and the policies to safeguard them. Produced in conjunction with an international scientific symposium, Kew's State of the World's Plants and Fungi sets an important international standard from which we can annually track trends in the global status of plant and fungal diversity. Drawing upon the expertise of 210 contributors in 97 institutions across 42 countries, the report is an unparalleled collaborative effort which takes an in-depth look at how we can protect and sustainably use the world's plants and fungi for the benefit of people and the planet. Details: https://www.kew.org/science/state-of-the-worlds-plants-and-fungi

(Monique Simmonds, the president-elect of GP-TCM RA, is in the core writing and editing team of this report.)

2. **Collecting duct cells show differential retinoic acid responses to acute versus chronic kidney injury stimuli.** *Scientific Reports***.** 2020.

Retinoic acid (RA) activates RA receptors (RAR), resulting in RA response element (RARE)-dependent gene expression in renal collecting duct (CD). Emerging evidence supports a protective role for this activity in acute kidney injury (AKI) and chronic kidney

disease (CKD). Herein, we examined this activity in RARE-LacZ transgenic mice and by RARE-Luciferase reporter assays in CD cells, and investigated how this activity responds to neurotransmitters and mediators of kidney injury. In RARE-LacZ mice, Adriamycin-induced heavy albuminuria was associated with reduced RA/RAR activity in CD cells. In cultured CD cells, RA/RAR activity was repressed by acetylcholine, albumin, aldosterone, angiotensin II, high glucose, cisplatin and lipopolysaccharide, but was induced by aristolochic acid I, calcitonin gene-related peptide, endothelin-1, gentamicin, norepinephrine and vasopressin. Compared with age-matched normal human CD cells, CD-derived renal cystic epithelial cells from patients with autosomal recessive polycystic kidney disease (ARPKD) had significantly lower RA/RAR activity. Synthetic RAR agonist RA-568 was more potent than RA in rescuing RA/RAR activity repressed by albumin, high glucose, angiotensin II, aldosterone, cisplatin and lipopolysaccharide. Hence, RA/RAR in CD cells is a convergence point of regulation by neurotransmitters and mediators of kidney injury, and may be a novel therapeutic target. Details: https://doi.org/10.1038/s41598-020-73099-9

(Corresponding author **Qihe Xu is the consulting editor of GP-TCM RA Newsletter.**)

3. **COVID-19: Is there evidence for the use of herbal medicines as adjuvant symptomatic therapy?** *Frontiers in Pharmacology*. 2020.

Current recommendations for the self-management of SARS-Cov-2 disease (COVID-19) include self-isolation, rest, hydration, and the use of NSAID in case of high fever only. It is expected that many patients will add other symptomatic/adjuvant treatments, such as herbal medicines. To provide a benefits/risks assessment of selected herbal medicines traditionally indicated for “respiratory diseases” within the current frame of the COVID-19 pandemic as an adjuvant treatment. The plant selection was primarily based on species listed by the WHO and EMA, but some other herbal remedies were considered due to their widespread use in respiratory conditions. Preclinical and clinical data on their efficacy and safety were collected from authoritative sources. The target population were adults with early and mild flu symptoms without underlying conditions. These were evaluated according to a modified PrOACT-URL method with paracetamol, ibuprofen, and codeine as reference drugs. The benefits/risks balance of the treatments was classified as positive, promising, negative, and unknown. A total of 39 herbal medicines were identified as very likely to appeal to the COVID-19 patient. According to our method, the benefits/risks assessment of the herbal medicines was found to be positive in 5 cases (*Althaea officinalis*, *Commiphora molmol*, *Glycyrrhiza glabra*, *Hedera helix*, and *Sambucus nigra*), promising in 12 cases (*Allium sativum*, *Andrographis paniculata*, *Echinacea angustifolia*, *Echinacea purpurea*, *Eucalyptus globulus* essential oil, *Justicia pectoralis*, *Magnolia officinalis*, *Mikania glomerata*, *Pelargonium sidoides*, *Pimpinella anisum*, *Salix sp*, *Zingiber officinale*), and unknown for the rest. On the same grounds, only ibuprofen resulted promising, but we could not find compelling evidence to endorse the use of paracetamol and/or codeine. Our work suggests that several herbal medicines have safety margins superior to those of reference drugs and enough levels of evidence to start a clinical discussion about their potential use as adjuvants in the treatment of early/mild common flu in otherwise healthy adults within the context of COVID-19. While these herbal medicines will not cure or prevent the flu, they may both improve general patient well-

being and offer them an opportunity to personalize the therapeutic approaches. Details: https://doi.org/10.3389/fphar.2020.581840

(Corresponding author **Michael Heinrich is the head and professor at the Centre for Pharmacognosy and Phytotherapy, UCL School of Pharmacy, London.**)

The 2020 Nobel Medicine Laureates

The 2020 Nobel Prize in Physiology or Medicine is awarded jointly to **Harvey J. Alter**, **Michael Houghton** and **Charles M. Rice** "for the discovery of Hepatitis C virus". Thanks to their discovery, highly sensitive blood tests for the virus are now available and these have essentially eliminated post-transfusion hepatitis in many parts of the world, greatly improving global health. Details: https://www.nobelprize.org/prizes/medicine/2020/summary/ © Nobel Media. Ill. Niklas Elmehed.

The 2020 Nobel Chemistry Laureates

The 2020 Nobel Prize in Chemistry is awarded to **Emmanuelle Charpentier and Jennifer A. Doudna** "for the development of a method for genome editing". Since Charpentier and Doudna discovered the CRISPR/Cas9 genetic scissors in 2012 their use has exploded. The genetic scissors have taken the life sciences into a new epoch and, in many ways, are bringing the greatest benefit to humankind. Details:

https://www.nobelprize.org/prizes/chemistry/2020/summary/ © Nobel Media. Ill. Niklas Elmehed.

Selected Information on COVID-19

1. **A systematic review of SARS-CoV-2 vaccine candidates.** *Signal Transduction and Targeted Therapy*. 2020.

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an emerging virus that is highly pathogenic and has caused the recent worldwide pandemic officially named coronavirus disease (COVID-19). Currently, considerable efforts have been put into developing effective and safe drugs and vaccines against SARS-CoV-2. Vaccines, such

as inactivated vaccines, nucleic acid-based vaccines, and vector vaccines, have already entered clinical trials. In this review, we provide an overview of the experimental and clinical data obtained from recent SARS-CoV-2 vaccines trials, and highlight certain potential safety issues that require consideration when developing vaccines. Furthermore, we summarize several strategies utilized in the development of vaccines against other infectious viruses, such as severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV), with the aim of aiding in the design of effective therapeutic approaches against SARS-CoV-2. Details: https://www.nature.com/articles/s41392-020-00352-y

2. HKBU launches rehabilitation programme for discharged COVID-19 patients.

HKBU has launched a unique Hong Kong Rehabilitation Programme for COVID-19 which aims to deliver comprehensive recovery care to discharged COVID-19 patients by integrating cardiorespiratory and resistance exercise training with the use of Chinese herbal medicine. The Programme team is led by HKBU's eminent scientists and health professionals, namely, Professor Guo Yike, Vice-President (Research and Development) and Professor of the Department of Computer Science; Professor Julien Baker, Head and Professor of the Department of Sport, Physical Education and Health; Professor Bian Zhaoxiang, Director and Chair Professor of the Clinical Division of the School of Chinese Medicine (SCM); and Professor Jia Wei, Chair Professor in Chinese Medicine and Systems Biology at SCM. Discharged COVID-19 patients can experience a number of debilitating physical and mental changes, such as shortness of breath, impaired lung functions, depression, etc. To address this, the interdisciplinary team has developed a treatment programme that combines cardiorespiratory exercise, resistance training and inspiratory muscle training along with Chinese herbal medicines to improve systemic metabolic and immune function, as well as pulmonary problem-related clinical symptoms which are evident in discharged COVID-19 patients. Professor Guo said: "While medical resources have been directed predominantly to the screening, detection, and treatment of patients infected with COVID-19, as well as the development of vaccines, one important aspect – patient rehabilitation – has been overlooked. This novel rehabilitation approach is the first-of-its-kind programme to benefit coronavirus sufferers around the world in a holistic and effective manner." Details: https://cpro.hkbu.edu.hk/en/press_release/detail/HKBU-launches-rehabilitation-programme-for-discharged-COVID-19-patients/

Recommended Reading

1. Research integrity: Nine ways to move from talk to walk. *Nature*. 2020.

We set out to assess the current situation and to learn what topics should be addressed in organizations' plans to promote research integrity. Our study, called Standard Operating

Procedures for Research Integrity (SOPs4RI), included 2 scoping reviews of the literature; 23 interviews with research-integrity experts across research institutions, funding organizations and committees; a Delphi study — an iterative, consensus-oriented study — involving a panel of 69 research-integrity policymakers; and 30 focus groups across European countries. These represented the natural, social and biomedical sciences, as well as the humanities (see Supplementary Table S3 for links to project outputs). We found firm consensus on nine topics (see 'Better research: three areas, nine topics, many actions' and Supplementary Table S1), which are also well represented in statements, declarations, and codes. Details: https://doi.org/10.1038/d41586-020-02847-8

2. **Cellular senescence and cancer: Focusing on traditional Chinese medicine and natural products.** *Cell Proliferation*. 2020.

Cancer is the principal cause of death and a dominant public health problem which seriously threatening human life. Among various ways to treat cancer, traditional Chinese medicine (TCM) and natural products have outstanding anti‐cancer effects with their unique advantages of high efficiency and minimal side effects. Cell senescence is a physiological process of cell growth stagnation triggered by stress, which is an important line of defence against tumour development. In recent years, active ingredients of TCM and natural products, as an interesting research hotspot, can induce cell senescence to suppress the occurrence and development of tumours, by inhibiting telomerase activity, triggering DNA damage, inducing SASP, and activating or inactivating oncogenes. In this paper, the recent research progress on the main compounds derived from TCM and natural products that play anti-cancer roles by inducing cell senescence is systematically reviewed, aiming to provide a reference for the clinical treatment of pro-senescent cancer. Details: https://doi.org/10.1111/cpr.12894

3. **Treatment of masked hypertension with a Chinese herbal formula: A randomized, placebo-controlled trial.** *Circulation*. 2020.

Masked hypertension is associated with adverse cardiovascular outcomes. Nonetheless, no randomized controlled trials exist in the treatment of masked hypertension. The aim of this randomized, placebo-controlled trial was to investigate the efficacy and safety of blood pressure (BP) lowering treatment with a Chinese herbal formula, gastrodia-uncaria granules (GUG), in patients with masked hypertension. Patients with an office BP of <140/90 mmHg and daytime ambulatory BP of 135-150 mmHg systolic and/or 85-95 mmHg diastolic were randomized 1:1 to the treatment of GUG or placebo 5-10 grams twice daily for 4 weeks. The primary efficacy variable was the change in daytime ambulatory BP. At baseline, office and daytime BP of the 251 participants (mean age 50.4 years, 53.4% men, mean body mass index 24.5 kg/m2, and 2.8%, 1.6%, and 30.7% with cardiovascular disease, diabetes mellitus, and smoking, respectively) averaged 129/82 and 135/89 mmHg, respectively. In the intention-to-treat analysis, daytime systolic/diastolic BP was reduced by 5.44 /3.39 and 2.91/1.60 mmHg in the GUG and placebo groups, respectively. The between-group difference in BP reductions was significant for the daytime (2.52/1.79 mmHg, P≤0.025) and 24-h BP (2.33/1.49 mmHg, P≤0.012), but not for the clinic and nighttime BPs (P≥0.162). The per-protocol analysis in 229 patients produced similar results. Only one adverse event (sleepiness during the day) was reported and no

serious adverse event occurred. BP lowering treatment with Chinese traditional medicine GUG is efficacious for patients with masked hypertension. Details: https://doi.org/10.1161/CIRCULATIONAHA.120.046685

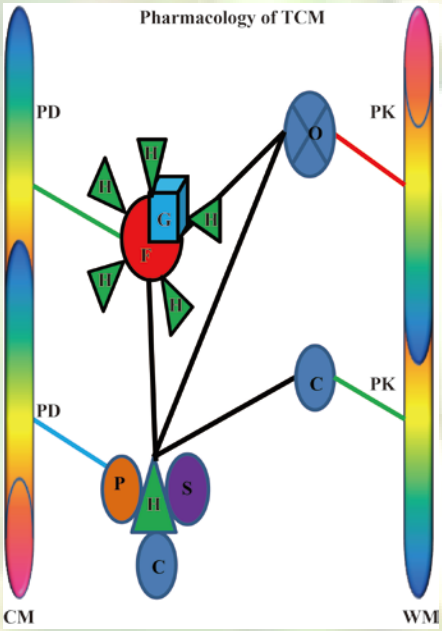
4. **Optimized acupuncture treatment (acupuncture and intradermal needling) for cervical spondylosis-related neck pain: A multicenter randomized controlled trial.** *Pain*. 2020.

Cervical spondylosis (CS)-related neck pain is difficult to treat due to its degenerative nature. The aim of this nine-center, single-blinded, randomized controlled trial was to evaluate the efficacy of optimized acupuncture for CS-related neck pain. Participants who met the inclusion criteria were randomized to optimized, shallow, and sham acupuncture groups (1:1:1). The primary outcome was the change from baseline in the Northwick Park Neck Pain Questionnaire (NPQ) score at week 4. Participants were followed up until week 16. Of the 896 randomized participants, 857 received ≥1 intervention session; 280, 286, and 291 received optimized, shallow, and sham acupuncture, respectively. A total of 835 (93.2%) participants completed the study. At week 4, significant differences (P<0.001) were observed in the changes in NPQ scores between the optimized acupuncture group and both the shallow (7.72 [95% confidence interval {CI}, 5.57-9.86]) and sham acupuncture groups (10.38 [95%CI, 8.25-12.52]). The difference in the scores at week 16 between the optimized acupuncture group and the shallow (8.84 [95%CI, 6.34-11.34]) and sham acupuncture (10.81 [95%CI, 8.32-13.30]) groups were significant. The center effect indicated wide variability in the treatment effects (Cohen's d=0.01-2.19). Most SF-36 scores were higher in the optimized acupuncture group than in the other groups. These results suggest that 4-week optimized acupuncture treatment alleviates CS-related neck pain and improves the quality of life, with the effects persisting for minimum 3 months. Therefore, acupuncture can have positive effects on CS-related neck pain, although the effect size may vary widely. Details: DOI: 10.1097/j.pain.0000000000002071

Special Features

Good practice in pharmacological research of Chinese medicine: A model inspired by the double-stranded DNA structure.

(From: **Xuanbin Wang**, Laboratory of Chinese Herbal Pharmacology, Oncology Center, Renmin Hospital, Biomedical Research Institute, Hubei Key Laboratory of Chinese Medicine Research, Hubei University of Medicine, Shiyan 442000, China; **Jin-Jian Lu**, State Key Laboratory for Quality Research in Chinese Medicine, Institute of Chinese Medical Sciences, University of Macau, Macau, 999078 China. E-mail: wangxb@hbmu.edu.cn)



It has been started to investigate the actions, the underlying mechanisms and the substance basis of Chinese medicines using the modern science and technologies since 1920s. It initiated with the studies on single herbs by means of phytochemistry and then directed to explore property theory, formulations, combination system, clinical administration and principle, and basic theory on Chinese medicines -- Researchers aimed to uncover the scientific principles in Chinese medicines preventing and treating diseases to facilitate clinical rational drug use, new drug discovery, and Chinese medicine theory development. However, though some achievements have been gained, problems have been occurred because of inconsistent views, theory, and methodologies between Chinese medicine (CM) and Western medicine (WM). Here we postulated the relationship between CM and WM as a model of "DNA". –They represent each "chain" of "DNA", respectively –never crosses each other, but links with the "bases". Unlike real DNA, here the bases are modern sciences and technologies instead of "A, T, C, and G". (CM: Chinese medicine ; WM: Western medicine; PK: pharmacokinetics; PD: pharmacodynamics; H: single herb; F: formula; S: source; C: compounds; P: properties; G: group of P, S and C; O: omics.)

As illustrated in Figure, research approaches to pharmacology of CM and WM are same, pharmacokinetics (PK) and pharmacodynamics (PD). Since Chinese medicines will be used as single herb (H) and formula (F), the DNA model on Good Pharmacological Practice on Chinese Medicine Research is divided into two type, H and F.

1. H

Researches for single herb include three aspects, source (S), compounds (C) and properties (P).

- S: herbs from different source exert different effects, strong or weak.
- C: bioactive compounds in medicinal herbs are necessary to the efficacy of herbs.

- P: according to the theories of Chinese medicine, properties, including Four flavour (Sixing or Siqi), Five taste (Wuwei), and meridian entering (Guijing), are correspondence with some bioactions.

Studies may focus on S, C and P to investigate PK and PD to explore the pharmacological and toxicological effects and underlying mechanisms. Therefore, CM and WM are linked with all of modern sciences and technologies including pharmacology and toxicology.

2. F

In many cases, Chinese treating diseases employ a complicate mixture—formula. On one hand, a formula consists of two or more single herbs. On the other hand, such herbs are combined via a specific rule—namely, Monarch (Jun), Minister (Chen), Assistant (Zuo) and Guide (Shi). And amount of components may lead to a group of drug-interactions. So a research of a formula may be considered as a group of single herbs and a group of P, S and C. The strategy for formula may include two ways. The one is to investigate the effects through its main herbs. The other is to analyze the group of P, S and C, and even the network of target sites and effectiveness. In this case, omics (O) may be more effective to investigate the PK and PD of a formula.

In conclusion, after development of about one hundred years and in the omics era, Chinese pharmacology should embrace all of modern sciences and technologies, including quantitative pharmacology, systems biology, network pharmacology, and artificial intelligence, to develop itself into a splendid future. (Based on: Overview of good pharmacological practice in Chinese medicine research. *Shi Jie Ke Xue Ji Shu – Zhong Yi Yao Xian Dai Hua*. 2019, 21: 1846-1854)

Welcome GP-TCM RA New Members

1. Mohammad Imad Fouad AlAli – Ordinary full member
2. Olumayokun Olajide – Ordinary full member

Invitation from the Official Journal of GP-TCM RA

1. WJTCM Call for papers: Pharmacology and Toxicology of Herbal Medicine.

The special issue on *Pharmacology and Toxicology of Herbal Medicine* focuses on the biological effects and mechanisms of herbal medicine. It has a broad scope, covering basic research to clinical studies regarding pharmacology and toxicology.

We cordially invite researchers and experts to contribute original research articles as well as reviews on pharmacology and toxicology of herbal medicine.

Potential topics include but are not limited to:

a. Bioactive principles from herbal medicine,
b. Biological, pharmacological activities and mechanisms of herbal medicine,
c. Genomics, proteomics, metabolomics, pharmacoinformatics studies on herbal medicine,
d. Toxicology of herbal medicine.

Authors can follow the author instructions and submit their manuscripts via the Manuscript System at: https://mc03.manuscriptcentral.com/wjtcm

Guest Editors

Hongxi Xu
Ph.D, Professor
Dean, School of Pharmacy
Shanghai University of Traditional Chinese Medicine, China
E-mail: xuhongxi88@gmail.com

Xuanbin Wang
Ph.D, Professor
Renmin Hospital
Hubei University of Medicine, China
E-mail: wangxb@hbmu.edu.cn

Pulok Kumar Mukhrjee
Ph.D, Professor
School of Natural Product Studies
Jadavpur University, Kolkata, India
E-mail: pulokm@gmail.com

Deadline for submission
January 30, 2021

Intended publication date
April 30, 2021

2. WJTCM Call for papers: Systems Biology and Metabolomics of Traditional Chinese Medicine

Special Issue on

Systems Biology and Metabolomics of Traditional Chinese Medicine

CALL FOR PAPERS

Guest Editor
Prof. Xi-jun Wang

Guest Editor
Prof. Hai-tao Lu

Guest Editor
Prof. Toshiaki Makino

Traditional Chinese Medicines (TCMs) are evidenced to confer therapeutic actions by largely interacting with dysregulated multi-layers molecules that underlie diseases, which can be defined as the holistic characteristics of TCMs to treat different diseases.

The fact is that systems biology, and metabolomics have the robust-capacity to better understand the holistic characteristics by globally deciphering the complex interactions between TCMs and diseases associated with dysregulated molecules. Currently, they are widely used to address many key questions in TCMs involving chemical characterization, therapeutic efficacy, toxicology and metabolic features, etc.

We invite the scholars in the niches to contribute research articles, reviews, and perspectives to this special issue.

Potential topics include but are not limited to:
a. metabolomics of TCMs
b. multiple omics of TCMs
c. network pharmacology of TCMs
d. systems biology of TCMs

Authors can submit their manuscripts via the Manuscript System at https://mc03.manuscriptcentral.com/wjtcm

Guest Editors

Xi-jun Wang
Ph.D., Professor
Heilongjiang University of Chinese Medicine, China
E-mail: xijunw@sina.com

Hai-tao Lu
Ph.D., Professor
Shanghai Jiao Tong University, China
E-mail: haitao.lu@sjtu.edu.cn

Toshiaki Makino
Ph.D., Professor
Nagoya City University, Japan
E-mail: makino@phar.nagoya-cu.ac.jp

Deadline for submission
May. 30, 2021

Intended publication date
October 30, 2021

3. WJTCM Call for papers: Processing of Chinese Medicinal Materials (Zhongyao Paozhi)

Special Issue on
Processing of Chinese Medicinal Materials (Zhongyao Paozhi)

CALL FOR PAPERS

Guest Editor
Prof. Tu-lin Lu

Guest Editor
Prof. Zhi-ling Yu

Guest Editor
Prof. Yuan-shiun Chang

In traditional Chinese medicine (TCM) practice, one of the distinctive features is the use of processed Chinese medicinal materials (Yinpian). It is Zhongyao Paozhi, a unique pharmaceutical technique, that transforms raw Chinese medical materials into Yinpian. Zhongyao Paozhi plays a pivotal role in guaranteeing the clinical efficacy and safety of TCM therapies.

We invite researchers home and abroad to contribute original research articles as well as reviews on the topic of Zhongyao Paozhi.

Potential topics include but are not limited to:

a. Scientific basis of Zhongyao Paozhi.
b. Intelligentization of Zhongyao Paozhi.
c. Techniques of Zhongyao Paozhi.
d. Quality standards of adjuvant materials for Zhongyao Paozhi.
e. Quality markers of Yinpian.
f. Quality standards of Yinpian.

Authors can follow the author instructions and submit their manuscripts via the Manuscript System at: https://mc03.manuscriptcentral.com/wjtcm.

Guest Editors

Tu-lin Lu
Ph.D, Professor
Departmnet:Nanjng University of Chinese Medicine
e-mail:lutuling2005@126.com

Zhi-ling Yu
Ph.D, Professor
School of Chinese Medicine, Hong Kong Baptist University
zlyu@hkbu.edu.hk

Yuan-Shiun Chang
Ph.D., Professor
College of Chinese Medicine,
China Medical University
yschang@mail.cmu.edu.tw

Deadline for submission
October 30, 2020

Intended publication date
December 25, 2020

4. WJTCM Call for papers: Biosynthesis-Driven Quality Design of Materia Medica

World Journal of Traditional Chinese Medicine (WJTCM)

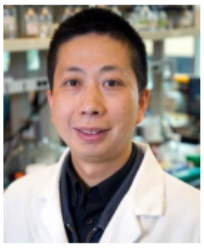
The official journal of WFCMS and GP-TCM

Special Issue on

Biosynthesis-Driven Quality Design of Materia Medica

CALL FOR PAPERS

Guest Editor
Prof. Wan-Sheng Chen



Guest Editor
Prof. Ji-Xun Zhan

Guest Editor
Prof. Shu-Juan Zhao

Biosynthesis and metabolic engineering together with molecular breeding provides an attractive approach to enhance the yield of effective components in medicinal plants and thus to improve or design the quality of Chinese Materia Medica, which is a great motivation for the sustainable development of the entire supply chain of traditional Chinese medicines.

We invite researchers home and abroad to contribute original research articles as well as reviews on the topic of biosynthesis-driven quality design of Chinese Materia Medica and other herbs.

Potential topics include but not limited to:

a. Elucidation and mapping of biosynthetic pathways of the effective components.

b. Metabolic engineering or regulation for the improvement of herbal quality.

c. Progress in understanding the biosynthesis of effective components.

d. Application of molecular breeding technology to medicinal plants.

.....

Authors can submit their manuscripts via the Manuscript System at https://mc03.manuscriptcentral.com/wjtcm.

Guest Editors

Wan-Sheng Chen
Ph.D, Professor
chenwansheng@smmu.edu.cn
Changzheng hospital, Second Military Medical University

Ji-Xun Zhan
Ph.D, Professor
jixun.zhan@usu.edu
Department of Biological Engineering, College of Engineering, Utah State University

Shu-Juan Zhao
Ph.D, Professor
zhaoshujuan@shutcm.edu.cn
Institute of Chinese Materia Medica, Shanghai University of Traditional Chinese Medicine

Manuscript Due Date
March 30, 2021

Intended Publication Date
June 25, 2021

5. WJTCM Call for papers: Qi Deficiency and Blood Stasis

World Journal of Traditional Chinese Medicine (WJTCM)

The official journal of WFCMS and GP-TCM

Special Issue on

Qi Deficiency and Blood Stasis

CALL FOR PAPERS

Guest Editor
Prof. Jing-Yan Han

Guest Editor
Prof. Jian-Xun Liu

Guest Editor
Prof. Jing-Yuan Mao

Guest Editor
Prof. Ming-Jun Zhu

Qi deficiency and blood stasis is a common feature in coronary heart disease, cardiac hypertrophy, myocardial ischemia-reperfusion injury and heart failure, for which there is a lack of effective prevention and treatment methods in modern medicine. Some traditional Chinese medicine (TCM) has shown beneficial effect on heart diseases in clinic, and increasing clinical and basic studies have been carried out devoting to the mechanism behand these medicines, particularly focusing on their potential of tonifying Qi and promoting blood circulation, as well as the scientific essence of the Qi deficiency and Blood Stasis. In order to exchange the latest research results in this field, we have organized special issues of Qi deficiency and blood stasis, tonifying Qi and promoting blood circulation. Experts from this field are welcome to contribute original research articles or reviews.

Potential topics include but not limit to:

a. Reviews on Qi deficiency and blood stasis, tonifying Qi and promoting blood circulation

b. Clinical studies regarding Qi deficiency and blood stasis and tonifying Qi and promoting blood circulation

c. Basic studies regarding Qi deficiency and Blood Stasis and tonifying Qi and promoting blood circulation

d. Pharmacological mechanisms of tonifying Qi and promoting blood circulation

Authors can submit their manuscripts via the Manuscript System at https://mc03.manuscriptcentral.com/wjtcm.

Guest Editors

Jing-Yan Han
Ph.D, Professor
Department of integrative Chinese and western medicine, Peking University
E-mail: hanjingyan@bjmu.edu.cn

Jian-Xun Liu
Ph.D, Professor
Xiyuan hospital, China academy of Chinese medical sciences
E-mail: liujx0324@sina.com

Jing-Yuan Mao
Ph.D, Professor
First teaching hospital of Tianjin university of TCM
E-mail: jymao@126.com

Ming-Jun Zhu
Ph.D, Professor
The first affiliated hospital of Henan university of TCM
E-mail: zhumingjun317@163.com

Accept submission date:
July. 30, 2020-July, 25, 2021

Monthly Chinese Materia Medica Highlights

Chinese lobelia (*Lobelia chinensis,* Campanulaceae, 半边莲, left) and bearded skullcap *(Scutellaria barbata,* Lamiaceae/Labiatae, 半枝莲, right)

The dried whole plants of *Lobelia chinensis (*lobeliae chinensis herba*, banbianlian)* and *Scutellaria barbata (*scutellariae barbatae herba*, banzhilian)* are common Chinese medicinals that clear heat, resolve toxicity, promote urination, and reduce swelling. Based on empirical knowledge since ancient times, lobeliae chinensis herba has long enjoyed a good reputation for treating snake and insect bites. Although not recoded in ancient Chinese *materia medica*, scutellariae barbatae herba removes blood stasis as well, and is commonly used in the treatment of cancer swellings in current traditional Chinese medicine clinical practice.

The taxonomic differences of *Lobelia chinensis* and *Scutellaria barbata* are obvious. However, their Chinese names 半边莲 (literally 'half-edge lotus') and 半枝莲 ('half-branch lotus') look similar, and might be confusing and misleading. The application of scientific and/or pharmaceutical names indicating their botanical origins and/or medicinal parts provides a useful solution to the nomenclature confusion.

半边莲

玲珑草本出田间
茎弱花红半似莲
曲径闻香将日暮
难寻恶物上人前

半枝莲

丛生草本半枝莲
侧立花儿色紫妍
偶闻邻家驱病痛
时时相见在窗前

The above colour photographs, English texts and Chinese poems are contributed by Prof **Hubiao Chen** (Hong Kong), Dr **Ping Guo** (Hong Kong) and Prof **Jiqing Liu** (Shenzhen), respectively. This column is advised by Prof **Zhongzhen Zhao** (Hong Kong).