



## The 12<sup>th</sup> Annual Meeting of Good Practice in Traditional Chinese Medicine **Research Association**

The 12<sup>th</sup> Annual Meeting of GP-TCM RA will be held on 24-26 August 2024 at Regency Art Hotel, Macau SAR, China. We would like to sincerely invite you all to join this 2.5-days Meeting and to take this opportunity to meet old and new friends. Please see attached the meeting flyer for the registration link and QR code. More details of the programme will be posted later.

Don't miss out the early bird rate for registration which has been extended to 15 July 2024.

In order to promote academic exchanges and research collaborations, we welcome you and your colleagues and students to submit abstracts to this Meeting to share your latest research findings. Please use the attached abstract submission form and kindly note the deadline for abstract submission has been extended to 15 July 2024.

We would like to sincerely welcome you all to the coming 12th Annual Meeting of GP-TCM RA in Macau SAR, China



## The 12th Annual Meeting of **Good Practice in Traditional Chinese Medicine** Research Association (GP-TCM RA)





24-26 August 2024 Macau SAR, China

**Meeting Venue: REGENCY ART HOTEL** 2 Estrada Almirante Marques Esparteiro, Taipa, Macau



For more details, please refer to GP-TCM RA website: www.ap-tcm.org



Early bird registration deadline: 15 July 2024 Abstract submission deadline: 15 July 2024 Registration deadline: 31 July 2024

Please download the Abstract Submission Form via the link below: https://www.gp-tcm.org/index.php/event/the-12th-gp-tcm-raannual-meeting/?lang=cn

**Abstract Submission** Form

https://forms.office.com/r/AZZC0xS0eC





# The 12<sup>th</sup> Annual Meeting of Good Practice in Traditional Chinese Medicine Research Association



# The 12<sup>th</sup> Annual Meeting of The Good Practice in Traditional Chinese Medicine Research Association (GP-TCM RA)

Date: 24-26 August 2024 Venue: Regency Art Hotel, Macau SAR, China

#### 24 August (Saturday)

8.30 am	Registration
9.00 am	Opening ceremony
9.50 am	Keynote speech 1
	"Pharmacognosy and TCM research – a fruitful alliance"
	Prof. Rudolf Bauer, University of Graz
10.20 am	Tea/coffee break & poster/exhibition viewing session
10.50 am	Keynote speech 2
	Prof. Shilin Chen (to be confirmed)
11.20 am	Keynote speech 3
	Topic to be confirmed
	Mr. Abraham Chan, PuraPharm International Ltd.
11.50 am	Lunch with lunchtime workshop
	12.30 <b>Interest Group 1 – Publication</b> (1 hr lunchtime workshop)
	Topic: Publishing in International Academic Journals
	Chaired by Dr. Myeong Soo Lee and Prof. De-An Guo
	12.30 Topic to be confirmed
	Speaker from World Journal of Traditional Chinese Medicine
	12.45 "Strategies for successfully publishing in SCI(E) journals"
	Dr. Eunhye Song and Dr Lin Ang (Integrative Medicine Research"
	1.00 "Weaving Diverse Perspectives: An Introduction to 'Perspectives on
	Integrative Medicine'"
	Dr Yeseul Lee (Perspectives on Integrative Medicine)
	1.15 Discussion
1.40 pm	Interest Group 2 - Pharmacology & Toxicology
	Topic: Ageing-Related Diseases
	Chaired by Prof. Thomas Efferth, Prof. Lie-Fen Shyur and Dr. Qihe Xu
	(25 min. + 5 min. Q&A each)
	1.40 – "Molecular mechanisms of TCM to treat cancer"
	Prof. Yu Zhiling, Hong Kong Baptist University
	2.20 – "Traditional medicine in neuroprotection and muscle generation of the
	elderly"
	Prof. Fang-Rong Chang, Kaohsiung Medical University
	2.50 - "Non-apoptotic modes of programmed cell death in health and disease"
0.40	Prof. Thomas Efferth, Johannes Gutenberg University Mainz
3.10 pm	Tea/coffee break & poster/exhibition viewing session
3.30 pm	Interest Group 3 - Regulatory Aspects
	Topic: Herbal (medicinal) products in China and in EU
	Chaired by Dr. Mei Wang, Prof. Gerhard Franz and Dr. Liping Qu
	3.30 – "Regulatory of TCM products in China"



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# The 12<sup>th</sup> Annual Meeting of Good Practice in Traditional Chinese Medicine Research Association

Prof. Junning Zhao, Deputy Commissioner of the National Medical Products Administration (NMPA)

3.55 – "Chinese and EU GMP from Regulatory perspective"

Dr. Stephan Horsten, Member of scientific committee ESCOP

4.20 – "Characteristics of R & D of herbal medicinal products and their regulation: a comparison of China and the European Union"

Dr. Liping Qu, Chengdu University of Traditional Chinese medicine

4.40 – General discussion

5.00 pm End of Day 1 session

#### 25 August (Sunday)

#### 9.00 am Interest Group 4 - Clinical Studies

*Topic: Chinese medicine globalisation: from clinical trials to translational studies* Chaired by Prof. Lidan Zhong

9.00 – "Influencing factors of neuropathic pain and the efficacy of electroacupuncture intervention in patients with NMOSD"

Dr. Yuanqi Zhao, Guangdong Provincial Hospital of Chinese Medicine

9.20 – "From clinical research to implementation practice -- some thoughts about R&D of preventive traditional herbs for influenza"

Prof. Jing Zhao, China Academy of Chinese Medical Sciences

9.40 – "A multi-omics analysis for the prediction and auxiliary diagnosis of neurocognitive disorders among Macao seniors with biased Chinese Medicine constitution"

Prof. Yonghua Zhao, University of Macau

10.00 - "Study on the formula-syndrome relationship, material basis and mechanism of action of Qingchang Suppository in the treatment of ulcerative colitis"

Prof. Boyun Sun, Nanyang Technological University and Shanghai University of TCM

10.20 - General discussion

10.30 am Tea/coffee break & poster/exhibition viewing session 10.50 am Interest Group 5 - Clinical Practice Guidelines

Topic: Integrative Oncology for Liver Cancer

Chaired by Prof. Vivian Wong and Dr. Chris Chan

10.50 - "NCCN guidelines"

Dr. Kwok Keung Yuen, The University of Hong Kong

11.15 – "Chinese Integrative Medicine CPG" (recorded talk) Dr. Xiao Fong Zhai, Changhai Hospital Shanghai

11.40 – "Clinical drug trials"

Prof. Man Fung Yuen, The University of Hong Kong

Topic: Standardization and clinical evidence of acupuncture research

12.05 - Way forward discussion

12.20 pm Lunch

(Early career participants lunch gathering, to be confirmed)

1.40 pm **GP-TCM RA AGM 2024** 

3.10 pm Tea/coffee break & poster/exhibition viewing session

3.30 pm Interest Group 6 - Acupuncture-Moxibustion and Meridians

Chaired by Prof. Jianping Liu

3.30 pm – "Development of CPG on acupuncture for scapulohumeral periarthritis" Prof. Jinsheng Yang, former director of Institute of TCM Basic Theory

3.50 pm – "Assessment of outcomes associated with needling point location used in sham acupuncture for pain conditions"

Dr. Myeong Soo Lee, PhD, Korea Institute of Oriental Medicine

4.10 pm – "Clinical research on acupuncture for smoking cession"

Dr. Yingying Wang, Institute of Acupuncture and Moxibustion, CACMS





# The 12<sup>th</sup> Annual Meeting of Good Practice in Traditional Chinese Medicine Research Association

4.30 pm – "Acupuncture for Insomnia: Clinical Trials, TCM Patterns, and Responders"

Dr. Jarry Wing-Fai Young Vice director, PCML Hong Kong Polytechnic

Dr. Jerry Wing-Fai Yeung, Vice director, RCMI, Hong Kong Polytechnic University

4.50 pm - Discussion

5.00 pm End of Day 2 session 6.00 pm **Conference dinner** 

#### 26 August (Monday)

8.45 am **2-minute flash poster presentations from selected abstracts** 

9.15 am **Interest Group 7 - Quality Control** 

Topic: Urgent issues in quality control of Chinese herbal drugs Chaired by Prof. Rudolf Bauer and Prof. Monique Simmonds

(20 min. + 3-5 min. Q&A each)

9.15 – "Sustainable supply of Chinese herbs"

Prof. Monique Simmonds, Royal Botanic Garden, Kew

9.40 - "Urgent quality issues from the Chinese perspective"

Prof. De-An Guo, Shanghai Institute of Materia Medica, Chinese Academy of Sciences

10.05 – "Upcoming tests of toxic constituents in the European Pharmacopoeia" Prof. Rudolf Bauer, University of Graz

10.30 - "Application of High-throughput sequencing for the quality control of herbal material"

Prof. Pang-Chui Shaw, The Chinese University of Hong Kong

10.55 am Tea/Coffee break & poster/exhibition viewing session

11.15 am **Keynote speech 4** 

"Gut microbiota and TCM"

Prof. Wendy Hsiao, Macau University of Science and Technology

11.45 am **Keynote speech 5** 

"A critical assessment of Traditional Chinese Medicine databases as a source for

drug discovery"

Dr. Jing Tang, University of Helsinki

12.15 pm Awards presentation

12.30 pm **Closing ceremony** 

12.40 pm Lunch







## **GP-TCM RA 2024 Annual General Meeting**

The 2024 Annual General Meeting (AGM) will be held on 25 August 2024 (Sunday), during our 12th Annual Meeting at Regency Art Hotel, Macau SAR, China. Please see attached the meeting agenda. You are most welcome to join the AGM in person, as well as our Annual Meeting. Please visit our website for details:

https://www.gp-tcm.org/index.php/event/the-12th-gp-tcm-ra-annual-meeting

#### **Good Practice in Traditional Chinese Medicine Research Association**



2024 Annual General Meeting
25 August 2024 (Sunday)

Regency Art Hotel, Macau SAR, China
1.40 pm – 3.10 pm (local time)

#### <u>Agenda</u>

- 1. AGM 2023 meeting minutes approval
- 2. President's report by Clara Lau
- 3. Secretary-General's report by Simon Lee
- 4. Treasurer's report by Tai-Ping Fan
- 5. Discussion on future meetings/activities
  - First announcement of the 13<sup>th</sup> Annual meeting
- 6. Any other business





# The 2<sup>nd</sup> Intertest Group workshop on Quality Control and Sustainability in TCM was seccessfully held on 10 May 2024

Prof. Rudolf Bauer and Prof. Monique Simmonds, the chairs and co-chair of the Quality Control interest group organised the 2nd Intertest Group workshop on Quality Control and Sustainability in TCM via online zoom platform joined by 51 partcipants. Topics on TRAFFIC & Sustainability in TCM, wildlife protection in TCM and guidelines on good agricultural and collection practices in TCM were discussed during the workshop. Please refer to the workshop program below for more information.



#### Good Practice in Traditional Chinese Medicine Research Association

## Interest Group on Quality Control

# Workshop "Quality Control and Sustainability in TCM"

Date: 10th of May 2024

Time: UK time 9 am -11:30 am (Beijing time 4 pm -6:30 pm)

Format: Zoom (online)

Language: English

Zoom link: Will be provided to all registrants at a nearer time

#### **Programme**

9:00 - 9:10 **Opening Remarks** 

Prof. Dr. Clara Lau, President of GP-TCM RA Department of Pharmacology and Pharmacy & School of Chinese Medicine, The University of Hong Kong

**Moderator:** Prof. Dr. Monique Simmonds, Enhanced Partnerships Department, Royal Botanic Gardens, Kew, London





# The $2^{\rm nd}$ Intertest Group workshop on Quality Control and Sustainability in TCM was seccessfully held on $10\,{\rm May}\,2024$

9:15 – 9:45 Dr. Anastasiya Timoshyna, Medicinal Plants Programme Leader, Senior Programme Coordinator - Sustainable Trade, TRAFFIC Sustainability in the traditional Chinese medicine (TCM) sector in China: the case for industry leadership

9:45 - 10:00 Q&A

Moderator: Prof. Dr. Guo De-an,

National Engineering Research Center of TCM Standardization Technology, Shanghai Institute of Materia Medica, Chinese Academy of Sciences

10:00 – 10:30 Prof. Dr. Lixing Lao, President of Virginia University of Integrative Medicine (VUIM)

Wildlife Protection in TCM

10:30 - 10:45 Q&A

Moderator: Prof. Dr. Rudolf Bauer,
Chair of QC IG, GP-TCM RA; Institute of Pharmaceutical Sciences, University of
Graz

10:45 – 11:15 Prof. Dr. Li Minhui, Inner Mongolia Key Laboratory of Characteristic Geoherbs Resources Protection and Utilization, Key Laboratory of Resourceology of Chinese Medicinal Materials, Baotou Medical College, Inner Mongolia Institute of Traditional Chinese Medicine, Inner Mongolia Medical University, Hohhot

Application of guidelines on good agricultural and collection practices in TCM

11:15 - 11:30 Q&A

#### Closing remarks

Prof. Dr. Rudolf Bauer, Chair of QC IG, GP-TCM RA; Institute of Pharmaceutical Sciences, University of Graz







## Mini-symposium organised by Prof. Rudolf Bauer



# KARL-FRANZENS-UNIVERSITÄT GRAZ INSTITUT FÜR PHARMAZEUTISCHE WISSENSCHAFTEN

Univ.-Prof. Dr. DDr. Rudolf Bauer **Beethovenstrasse 8, 8010 Graz, Austria** Tel. (+43) 316 - 380 8700; Fax (+43) 316 - 380 9860;

e-mail: rudolf.bauer@uni-graz.at



24 Juni 2024

#### Mini-symposium on the occasion of my retirement

Dear Colleagues and friends,

On **Friday, September 20, 2024**, it is planned to hold a small symposium on the occasion of my upcoming retirement shortly afterwards, to look back a bit, but also into the future of pharmacognosy.

The title of my farewell lecture will be "Pharmacognosy - a view back".

A representative of the next generation (but not my successor), Professor Dr. Maria Halabalaki, National and Kapodistrian University of Athens Department of Pharmacy Division of Pharmacognosy and Natural Products Chemistry, will talk about "Challenges and opportunities in future pharmacognosy".

I would like to cordially invite all current and former employees, all current and former colleagues and cooperation partners, as well as all those who would like to celebrate my farewell with me, to this event.

The event starts at 1:30 p.m. in lecture hall 03.01, Universitätsplatz 1. Afterwards, everyone is cordially invited to eat and drink. An exact program will be announced later.

**Please make a note of the date** and register **with** claudia.thenius@uni-graz.at <u>immediately, but no later than August 31, 2024</u>.

We are looking forward to seeing you in large numbers.

Best regards,

Rudi Bauer





## New members of GP-TCM RA (May-June 2024)

## **Ordinary Members**

Yang Mooi LIM	Universiti Tunku Abdul Rahman, Malaysia
Tao ZHANG	Technological University (TU) of Dublin, Ireland
Christina Chui-Wa POON	The Hong Kong Polytechnic University, Hong Kong SAR, China
Linlin XIU	Beijing University of Chinese Medicine, China
Cheong-Meng CHONG	University of Macau, Macau SAR, China
Ailin LIU	Institute of Materia Medica, Chinese Academy of Medical Sciences and Peking Union Medical College, China
Qiwen LIAO	The Chinese University of Hong Kong, Shenzhen, China

## **Student Member**

Pengfei LI	University of Macau, Macau SAR, China





# Current Corporate Members/ Institutional Members





## **Current Corporate Members**

Dalian Fusheng Natural Medicine Development Co. Ltd., China	大连宫生天然药物开发有限公司 DALIAN FUSHENG NATURAL MEDICINE DEVELOPEMENT CO., LTD
Hutchison Whampoa Guangzhou Baiyunshan Chinese Medicine Co. Ltd., China	广州白云山和记黄塘中药有限公司
Infinitus (China) Company Ltd., China	INFINITUS 无限极
PuraPharm International (H.K.) Ltd., Hong Kong SAR, China	<b>⊘</b> ® Pura <b>Pharm</b>
Shanghai Hutchison Pharmaceuticals, China	Shanghai Hutchison Pharmaceuticals 上海和黄药业



## **Current Institutional Members**

Chengdu University of Traditional Chinese Medicine, China	
China Medical University, Taichung, Taiwan (Department of Chinese Pharmaceutical Sciences and Chinese Medicine Resources)	THE PARTY OF THE P
Heilongjiang University of Chinese Medicine, China	ALL VICTOR OF THE PROPERTY STUDIES
Hong Kong Baptist University, Hong Kong SAR, China (School of Chinese Medicine)	香港浸會大學 HONG KONG BAPTIST UNIVERSITY
Shaanxi University of Technology	To the state of th
The University of Hong Kong, Hong Kong SAR, China (Department of Pharmacology and Pharmacy, LKS Faculty of Medicine)	HKU LKS Faculty of Medicine Department of Pharmacology & Pharmacy 曹港大學藥理及藥劑學系
Zhejiang Chinese Medical University, China (School of Pharmaceutical Sciences)	
Zhengzhou University of Industrial Technology, China	



#### Nature Index China Highlights published on 5th June 2024

nature > nature index

Nature Index 05 June 2024

## China



China's status at the summit of the Nature Index remains unrivalled as the gap between it and the United States grows. The key question is where Chinese research will go next. As the nation seeks international recognition for its scientific achievements, betting big on largescale experiments, it is also carving its own path in publishing and partnerships. Time will tell how these strategies will shift the status quo of the global research landscape.



News and photo adapted from link below:

https://www.nature.com/collections/efchdhgeci?WT.ec\_id=NATURE-20240606&utm



#### Science: New probe finds misconduct by star botanist

After 2022 exoneration, fresh inquiry concludes Steven Newmaster fabricated data that questioned quality of echinacea, ginkgo, and other substances

#### New probe finds misconduct by star botanist

Steven Newmaster had been cleared, but fresh inquiry concludes he likely made up data



#### News and photo adapted from link below: DOI: 10.1126/science.adr0290

https://www.science.org/content/article/star-botanist-likelymade-data-about-nutritional-supplements-new-probe-finds



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# Joint team from SCM and Shanghai Sixth People's Hospital receives First Prize of Shanghai Medical Science and Technology Award

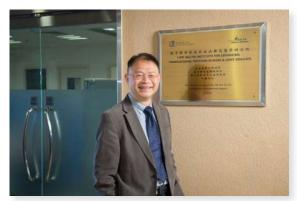




**NEWS** 

# Joint team from SCM and Shanghai Sixth People's Hospital receives First Prize of Shanghai Medical Science and Technology Award

29 April 2024



A joint team composed of Professor Zhang Ge, Dr. Wang Luyao, along with experts from the Shanghai Sixth People's Hospital, has been awarded the First Prize of the 2023 Shanghai Medical Science and Technology Award for the project "Molecular Mechanisms and Clinical Precision Diagnosis and Treatment of Hereditary Bone Diseases."



News and photo adapted from link below:

https://scm.hkbu.edu.hk/en/news-and-events/news/2024/0429-Prof-Zhang-Ge.html

A joint team composed of Professor Zhang Ge, Associate Dean (Research) of Chinese Medicine, Dr. Wang Luyao, Post-Doctoral Research Fellow of the Teaching and Research Division, along with experts from the Shanghai Sixth People's Hospital, has been awarded the First Prize of the 2023 Shanghai Medical Science and Technology Award for the project "Molecular Mechanisms and Clinical Precision Diagnosis and Treatment of Hereditary Bone Diseases." The Shanghai Medical Science and Technology Award, established by the Shanghai Medical Association in 2002, has been dedicated to foster the innovative development of and transformation of achievements in medical science and technology, and to drive the high-quality development of Shanghai's healthcare industry.

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# Professor Bian Zhaoxiang's new Chinese medicine for Elderly Constipation Secures RAISe+Funding





**NEWS** 

# Professor Bian Zhaoxiang's new Chinese medicine for Elderly Constipation Secures RAISe+ Funding

4 June 2024

Professor Bian Zhaoxiang, Associate Vice-President (Clinical Chinese Medicine) and Director of the Centre for Chinese Herbal Medicine Drug Development (CDD) at Hong Kong Baptist University (HKBU), has secured funding support from the Research, Academic and Industry Sectors One-plus (RAISe+) Scheme for a project on a new Chinese herbal medicine to treat functional constipation in the elderly.



News and photo adapted from link below:

https://scm.hkbu.edu.hk/en/news-and-events/news/2024/0604-RAISe.html



Professor Bian Zhaoxiang's new Chinese medicine for Elderly Constipation Secures RAISe+ Funding

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Professor Zhang Ge Secured Top Funding Amount From Shenzhen-Hong Kong-Macau Science and Technology Plan Project (Category C) 2024

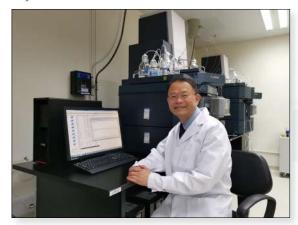




**NEWS** 

## Professor Zhang Ge Secured Top Funding Amount From Shenzhen-Hong Kong-Macau Science and Technology Plan Project (Category C) 2024

11 June 2024



Professor Zhang Ge, Associate Dean (Research) of Chinese Medicine

News and photo adapted from link below:

https://scm.hkbu.edu.hk/en/news-and-events/news/2024/0611-ZhangGe.html

Professor Zhang Ge, Associate Dean (Research) of Chinese Medicine, has secured a top funding amount of RMB 3 million, from the latest Shenzhen-Hong Kong-Macau Science and Technology Plan Project (Category C).

The exceptional awarded project was titled "Role of sclerostin structural loop3 in bone formation reduction and site-specific arterial stiffness increase under simulated weightlessness". It aims to provide a precise molecular target that is safe for the cardiovascular system to combat bone loss due to weightlessness in space. It intends to support the development of innovative drugs (cardiovascular-safe sclerostin inhibitors) with China's independent intellectual property rights. This is aimed at safeguarding the bone and cardiovascular health of astronauts in China's plan for a manned lunar landing by 2030.



Chen Changqing, Editor-in-Chief, Elected as Chairman of the Medical and Health Journals Committee of the Tianjin Periodicals Workers Association

## 陈常青总编当选天津市期刊工作者协会医药卫生期刊专委会主任委员

中草药杂志社 中草药杂志社 2024-06-19 10:36 天津



News and photo adapted from link below: https://mp.weixin.qq.com/s/TG8KcxHqpQDkcM6\_zOp34Q 2024年6月17日,天津市期刊工作者协会第五届第一次会议在天津数字出版产业园成功召开,出席会议的协会领导有会长班峰,副会长石悦、陈常青、陈金龙、蔡双立、岳涛、王乃合、段志超、刘书棋、董文革、高琳琦、王琦,秘书长刘晓莉,包括天津市社科和自然科学期刊200多名会员代表参加。会议总结了2024年上半年协会工作,并表决通过了协会会费调整,设立医药卫生期刊、高校学报期刊、社科经济类期刊3个专业委员会,评选天津市优秀主编/编辑部主任、优秀编辑、优秀青年编辑。最后,班峰会长对协会上半年开展的工作给予了充分的肯定,并对下半年协会重点工作进行了部署。会议由刘晓丽秘书长主持。





#### Science of Traditional Chinese Medicine is now available

#### 《中醫藥科學(英文)》雜誌海外社媒賬號正式上線

日期: 2024-05-29 來源: 紫荆养生

中國中醫科學院中藥研究所旗下《中醫藥科學(英文)》雜誌已於 2024 年 5 月 28 日正式開通海外社媒 賬號。賬號官方名稱為:Science of Traditional Chinese Medicine(STCM),XID 為 @ScienceSTCM。



News and photo adapted from link below: https://bau.com.hk/article/2024-05/29/content\_1245422225102000128.html





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#### A critical assessment of Traditional Chinese Medicine databases as a source for drug discovery

#### Journal: Frontiers in Pharmacology

#### **Detail:**

DOI: https://doi.org/10.3389/fphar.2024.1303693

https://www.frontiersin.org/journals/pharmacology/articles/10.3389/fphar.2024.1303693/full



PUBLISHED 26 April 2024 DOI 10.3389/fphar.2024.1303693

#### Check for updates

Juei-Tang Cheng, Chang Jung Christian University, Taiwan

REVIEWED 61 Jun Liu, China Academy of Chinese Medical Sciences,

China News...
China
Bob Allkin,
Royal Botanic Gardens, Kew, United Kingdom
Opeyemi Nadoye,
Federal University of Technology, Nigeria

\*CORRESPONDENCE Yinyin Wang, ⊠ yinyin.wang@cpu.edu.cn Jing Tang, ⊠ jing.tang@helsinki.fi

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convision 9 2024 Wang, Liu, Jafari and Tang, This is an open-access article distributed under the terms of the Creative Commons Attribution License (ICC BY). The use, distribution or reproduction in other forums is permitted, provided the original authorist) and the copyright ownerful are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

#### A critical assessment of Traditional Chinese Medicine databases as a source for drug discovery

Yinyin Wang<sup>1\*</sup>, Minxia Liu<sup>2</sup>, Mohieddin Jafari<sup>3</sup> and Jing Tang<sup>3,4\*</sup>

<sup>1</sup>School of Traditional Chinese Pharmacy, China Pharmaceutical University, Nanjing, China, <sup>2</sup>Faculty Life Science, Anhui Medical University, Hefei, China, <sup>1</sup>Department Biochemistry and Developmental Biology, University of Helsinki, Helsinki, Finland, <sup>4</sup>Research Program in Systems Oncology, Faculty of Medicine, University of Helsinki, Helsinki, Finland

Traditional Chinese Medicine (TCM) has been used for thousands of years to treat human diseases. Recently, many databases have been devoted to studying TCM pharmacology. Most of these databases include information about the active ingredients of TCM herbs and their disease indications. These databases enable researchers to interrogate the mechanisms of action of TCM systematically. However, there is a need for comparative studies of these databases, as they are derived from various resources with different data processing methods. In this review, we provide a comprehensive analysis of the existing TCM databases. We found that the information complements each other by comparing herbs. found that the information complements each other by comparing herbs, ingredients, and herb-ingredient pairs in these databases. Therefore, data harmonization is vital to use all the available information fully. Moreover, different TCM databases may contain various annotation types for herbs or ingredients, notably for the chemical structure of ingredients, making it challenging to integrate data from them. We also highlight the latest TCM databases on symptoms or gene expressions, suggesting that using multi-omics data and advanced bioinformatics approaches may provide new insights for drug discovery in TCM. In summary, such a comparative study would help improve the understanding of data complexity that may ultimately motivate more efficient and more standardized strategies towards the digitalization of TCM.

Traditional Chinese Medicine, TCM databases, network pharmacology, mechanisms of action, drug discovery

#### 1 Introduction

TCM has not only played a crucial role in the treatment and prevention of disease in TCM has not only played a crucial role in the treatment and prevention of disease in ancient times but also is used as a valuable source of natural products in modern drug discovery (Atanasov et al., 2021; Ngo et al., 2013). At present, there are more than 8,000 TCM components in total, which have been reported to have various pharmacological effects (Wangkheirakpam et al., 2018), especially for complex diseases (Yan et al., 2021), such as obesity (Vermaak et al., 2011), nonalcoholic fatty liver disease (Yan et al., 2020), cancer (Wang et al., 2021), and diabetes (Tong et al., 2012). TCM herbs as plant-based substances for medicinal purposes typically refer to the leaves, flowers, seeds or protos of plants that may induce potential health benefits. They can be used stems, seeds, or roots of plants that may induce potential health benefits. They can be used

Frontiers in Pharmacology

## The Impact of Artificial Intelligence on Traditional Chinese Medicine

## Journal: The American journal of Chinese medicine

#### **Detail:**

DOI: https://doi.org/10.1142/S0192415X21500622

https://pubmed.ncbi.nlm.nih.gov/34247564/







#### The European Innovation Network as a hub for medicines innovation in Europe

Journal: Nature Reviews

**Detail:** 

DOI: https://doi.org/10.1038/d41573-024-00039-x https://www.nature.com/articles/d41573-024-00039-x

#### Comment

https://doi.org/10.1038/d41573-024-00039-x

# The European Innovation Network as a hub for medicines innovation in Europe

Eleonora Agricola, Caroline Auriche-Benichou, Helena Baiao, Oriane Blanquie, Teodora Bodea, Tomáš Boráň, John-Joseph Borg, Valentina Cordoʻ, Maria Di Marzo, Lars Dmowski Rugholm, Falk Ehmann, Rúna Hauksdóttir Hvannberg, Ralf Herold, Alar Irs, Simona Jurkovič Mlakar, Robert Klaus, Juha Kolehmainen, Christophe Lahorte, Wiebke Löbker, Anna Mäkinen Salmi, Yoana Nuevo Ordoñez, Laurence O'Dwyer, Anna Maria Gerdina Pasmooij, Ingvil Saeterdal, Bronislava Spakova, Viktoriia Starokozhko, Bettina Ziegele & Katarzyna Zywiec



The European Innovation Network is working to support the European medical innovation ecosystem by facilitating early dialogue between developers of medicines and regulators, as well as providing a platform for regulators to share information, good practices and expertise.

#### Introduction

Innovations in medicine and healthcare often start with discoveries by academic researchers and small and medium-sized enterprises (SMEs). However, drug development can be challenging for such organizations owing to limited knowledge of regulatory science and limited experience in navigating the regulatory systems. So, lack of engagement and communication between such organizations and regulators can hamper the translation of research on innovative medicines into clinical practice.

Recognizing the importance of addressing this issue, the European Medicines Agency (EMA) and the Heads of Medicines Agencies (HMA) established the European Innovation Network (EU-IN) in 2015. The EU-IN's mission is to facilitate the development of novel medicines and innovative methodologies by encouraging and facilitating  $engagement\,between\,innovators\,and\,regulators\,at\,a\,very\,early\,stage,$ to raise awareness about the available regulatory support tools at the European and national level, and to identify emerging potential issues and gaps in the regulatory framework. The EU-IN, which is composed of 23 representatives of national competent authorities from 22 member states and representatives of the EMA Innovation  $Task\,Force, also\,provides\,a\,plat form\,for\,regulators\,to\,exchange\,good$ practices and expertise. Finally, the EU-IN aims to increase and harmonize the flow of knowledge from innovators to national competent authorities and the EMA scientific committees, providing a central hub around which to build a supportive European innovation ecosystem. Here, we highlight selected activities of the EU-IN and their

#### $\hbox{EU-IN\,activities\,to\,support\,developers\,of\,medicines}$

The EU-IN helped to initiate the project Strengthening Training of Academia in Regulatory Science (STARS), funded by the EU Horizon 2020 programme. The STARS project aimed to increase the likelihood

of successful translation of academic biomedical research into clinical practice, while promoting the use of support tools provided by regulatory agencies<sup>3</sup>. To achieve this, the project developed a common strategy with 21 recommendations for improving academic understanding of regulatory science<sup>3</sup>.

The EU-IN is currently promoting the implementation of this common strategy and the recommendations through specific activities and collaborations with other relevant groups and initiatives such as the Accelerating Clinical Trials in the EU (ACT-EU) initiative. ACT-EU aims to transform how clinical trials are initiated, designed and run in the EU, improving its international attractiveness as a place to conduct clinical trials. Sharing common goals, the EU-IN is involved in implementing the clinical trials regulation, developing a strategy for EU clinical trials analytics, establishing a multi-stakeholder platform, developing a coordinated scientific advice process for clinical trials design and delivering a clinical trials training strategy that includes modules on drug development and regulatory science, thereby serving as an 'educational' ecosystem, especially for SMEs and academia.

To further strengthen early regulatory support for innovation in Europe, the EU-IN launched the Simultaneous National Scientific Advice (SNSA) pilot project in 2020, which is currently in its second phase. SNSA offers an additional and alternative procedure for obtaining scientific advice simultaneously from more than one national competent authority on products in early-stage development. The pilot provides an opportunity for applicants to discuss issues simultaneously with selected member states, and also for regulators to exchange their views, increasing the potential to result in consolidated opinions.

The scope of SNSA is fully aligned with that of national scientific advice. In conjunction with ACT EU, the second phase of the pilot project is focusing on scientific advice related to planned clinical trials to encourage a greater use of scientific advice by SMEs and academia, with the aim of facilitating additional multinational trials in the EU.

Repurposing of approved medicines for new indications, such as for the treatment of a rare disease, is an approach that is often led by non-profit organizations, including academic institutions. In 2019, the Expert Group of the European Commission on the Safe and Timely Access to Medicines for Patients launched a proposal for a framework to support non-profit organizations and academia in repurposing authorized medicines together with regulators, non-profit and industry representatives, patients, healthcare professionals, and health technology assessment bodies. The EU-IN contributed to the development of the repurposing framework and actively participates in the project.

nature reviews drug discovery

Volume 23 | June 2024 | 405-406 | **405** 





#### Artemisinins ameliorate polycystic ovarian syndrome by mediating LONP1-CYP11A1 interaction

Journal: Science

**Detail:** 

DOI: 10.1126/science.adk5382

https://www.science.org/doi/10.1126/science.adk5382

#### RESEARCH ARTICLE SUMMARY

#### ENDOCRINOLOGY

#### Artemisinins ameliorate polycystic ovarian syndrome by mediating LONP1-CYP11A1 interaction

Yang Liu†, Jing-jing Jiang†, Shao-yue Du†, Liang-shan Mu, Jian-jun Fan, Jun-chi Hu, Yao Ye, Meng Ding, Wei-yu Zhou, Qiu-han Yu, Yi-fan Xia, Hong-yu Xu, Yi-jie Shi, Shu-wen Qian, Yan Tang, Wei Li, Yong-jun Dang, Xi Dong, Xiao-ying Li, Cong-jian Xu, Qi-qun Tang\*

INTRODUCTION: Polycystic ovarian syndrome (PCOS), a prevalent reproductive endocrine disorder affecting 10 to 13% of women in their reproductive age, is characterized by hyperandrogenemia, ovulatory dysfunction, polycystic ovarian morphology, and often by associated metabolic disorders. Androgen excess is a key factor driving the phenotypic features of PCOS. Despite the high prevalence of PCOS, pharma cologic interventions for such a complicated syndrome encounter substantial challenges The treatment options currently available for PCOS are limited and mainly tailored to management of specific symptoms. Consequently, there is a compelling and urgent need for the development of innovative therapeutic strategies.

RATIONALE: Artemisinin, derived from Artemisia plants, is widely recognized for its efficacy against malaria. We have previously demonstrated that artemisinin and its derivatives possess the capability to enhance energy ex-

penditure and insulin sensitivity through the activation of thermogenic adipocytes, thereby protecting against diet-induced obesity and metabolic disorders. In this study, we explored the therapeutic potential of artemisinins in rodent PCOS-like models and human patients with PCOS by evaluating the effect of artemi sinin derivatives on testosterone level, estrous cycle, and polycystic ovarian morphology. Using in vitro and in vivo approaches, we investigated the impact of artemisinins on ovarian testoster one synthesis. The direct target of artemisinins was identified to elucidate the mechanism governing the regulation of testosterone synthesis by artemisinins.

RESULTS: We found that artemisinin analog artemether exhibited considerable improvements in hyperandrogenemia, irregular estrous cycles, polycystic ovarian morphology, and low fertility in the PCOS-like rodent models. Artemisining inhibited hyperandrogenemia by repressing

tative proteomics analysis revealed cytocl P450 family 11 subfamily A member 1 (CYP11A1). the enzyme catalyzing the initial step of androgen synthesis, as the most notably decreased protein affected by artemisinins. Further investiga tion showed that artemisinins induced the degradation of CYP11A1, leading to the inhibition of ovarian androgen synthesis. This inhibitory effect was diminished in the absence of CYP11A1. Mechanistically, artemisinins directly targeted the lon peptidase 1 (LONP1), en hancing the interaction between LONP1 and CYPIIA1 and promoting the LONPI-catalyzed degradation of CYPIIA1. Conversely, androgenic inducer disrupted the binding between LONP1 and CYP11A1; additionally, LONP1 was down-regulated in PCOS, resulting in elevated CYP11A1 levels and increased androgen synthesis. Protein-docking simulations and subse quent functional experiments suggested that the inhibitory effect of artemisinins on CYP11A1 level largely depended on their direct binding to the proteolytic domain of LONP1. Consistent with the function of artemisinins, LONP1 overexpression strongly suppressed androgen production in the ovary. Lastly, a pilot clinical trial was conducted to confirm the therapeutic effects of artemisinins in patients with PCOS. We found that dihydroartemisinin treatment effectively ameliorated hyperandrogenemia, re duced anti-Müllerian hormone levels, improved polycystic ovarian morphology, and contributed to the normalization of menstruation in patients with PCOS.

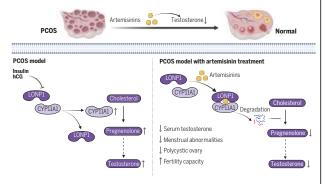
ovarian testosterone synthesis. Relative ou

CONCLUSION: Our data demonstrated the efficacy of artemisinins in alleviating symptoms associated with PCOS in both rodent models and human patients. Artemisinins directly bind to LONP1, initiating the interaction be tween LONP1 and CYP11A1, which in turn promotes the degradation of CYP11A1, subsequently inhibiting ovarian androgen synthesis and curbing PCOS, Contrarily, androgenic inducer disrupts LONP1-CYP11A1 interaction and aggravates PCOS. Overall, our findings highlight the promising potential of artemisinins as effective drugs for the comprehensive treatment of PCOS. This discovery illuminates previously unknown interaction between LONPI and CYP11A1 that is enhanced by artemisinins to govern androgen synthesis, opening ave nues for PCOS intervention by targeting LONP1-

CYP11A1 interaction. The list of author affiliations is available in the full article online 
\*Corresponding author. Email: qqtang@shmu.edu.cn 
†These authors contributed equally to this work. as Y. Liu et al.. So (2024), DOI: 10.1126/science.adh5382

READ THE FULL ARTICLE AT https://doi.org/10.1126/science.adk5382

1 of 1



Artemisinins inhibit ovarian androgen synthesis and relieve PCOS. The pro-androgen inducer human chorionic gonadotropin (hCG) disrupts the interaction between LONP1 and CYP11A1, leading to the upregulation of CYP11A1, which promotes androgen production and exacerbates PCOS. Conversely, artemisining mediate LONP1-CYP11A1 interaction, promoting the degradation of CYP11A1 and subsequently inhibiting ovarian androgen synthesis. Conse quently, artemisinins show efficacy in ameliorating PCOS symptoms in both rodents and human patients [Figure created with BioRender.com].

Liu et al., Science 384, 1187 (2024) 14 June 2024

Artemisinins are plant-derived compounds that are best known for their antimalarial properties but have also been shown to have some beneficial metabolic effects. Liu et al. demonstrated that artemisinins can also relieve the endocrine manifestations of polycystic ovarian syndrome in multiple rodent models and in human patients, ...





V

# A selection of recently published papers in *Frontiers in Pharmacology*



## Journal: Frontiers in Pharmacology

#### Potential therapeutic effects of traditional Chinese medicine in acute mountain sickness: pathogenesis, mechanisms and future directions

Detail: https://www.frontiersin.org/journals/pharmacology/articles/10.3389/fphar.2024.1393209/full

# Ferroptosis: a new mechanism of traditional Chinese medicine for treating ulcerative colitis

Detail: https://www.frontiersin.org/journals/pharmacology/articles/10.3389/fphar.2024.1379058/full

# The therapeutic effect of traditional Chinese medicine on breast cancer through modulation of the Wnt/β-catenin signaling pathway

Detail: https://www.frontiersin.org/journals/pharmacology/articles/10.3389/fphar.2024.1401979/full

Efficacy and safety of traditional Chinese medicine decoction as an adjuvant treatment for diabetic nephropathy: a systematic review and meta-analysis of randomized controlled trials

Detail: https://www.frontiersin.org/journals/pharmacology/articles/10.3389/fphar.2024.1327030/full



2024

Aug. 19-22 The 20th Meeting of Consortium for Globalization of Chinese Medicine



Date: 19-22/08/2024

#### Location:

Hengqin Scientific and Technological Innovation Center

#### **Organizers:**

Consortium for Globalization of Chinese Medicine







## Journal: Frontiers in Pharmacology

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Topic	Plant Metabolites in Drug Discovery: The Prism Perspective between Plant Phylogeny, Chemical Composition, and Medicinal Efficacy, Volume III
Deadline	Manuscript Submission Deadline 29 August 2024
Details	https://www.frontiersin.org/research-topics/62190/plant-metabolites-in-drug-discovery-the-prism-perspective-between-plant-phylogeny-chemical-composition-and-medicinal-efficacy-volume-iii
Editor(s)	Da-Cheng Hao Dalian Jiaotong University, China  Richard Spjut World Botanical Associates, Inc. Bakersfield, CA, United States  Chunnian He Institute of Medicinal Plant Development, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China



## Journal: Frontiers in Pharmacology \* frontiers



Topic	Prevention and Treatment of Infectious Diseases by Herbal Medicine
Deadline	27 September 2024
Details	https://www.frontiersin.org/research-topics/63582/prevention-and-treatment-of-infectious-diseases-by-herbal-medicine
Editor(s)	Quansheng Feng Professor, Chengdu University of Traditional Chinese Medicine, Chengdu, China  Marcello Iriti University of Milan, Milan, Italy  Qingquan Liu Professor, Beijing Hospital of Traditional Chinese Medicine, Capital Medical University, Beijing, China





## Journal: Frontiers in Pharmacology \* frontiers



Topic	Topic: Herbal Medicines and Their Metabolites: Effects on Lipid Metabolic Disorders via Modulating Oxidative Stress - Volume II
Deadline	Manuscript Summary Submission Deadline 10 July 2024 Manuscript Submission Deadline 28 October 2024
Details	https://www.frontiersin.org/research-topics/64321/herbal-medicines-and-their-metabolites-effects-on-lipid-metabolic-disorders-via-modulating-oxidative-stressvolume-ii
Editor(s)	Wei Peng Associate Professor, School of Pharmacy, Chengdu University of Traditional Chinese Medicine, Chengdu, China  Adolfo Andrade-Cetto Post-Doctorate, National Autonomous University of Mexico, México City, Mexico  Yongmei Xie State Key Laboratory of Biotherapy and Cancer Center, West China Hospital, Sichuan University and Collaborative Innovation Center of Biotherapy, Chengdu, China  Qing Zhang Post Doctoral Researcher, University of Michigan, Ann Arbor, United States



## Journal: Frontiers in Pharmacology \* frontiers



Topic	Topic: Plant-derived Therapeutics and Traditional Medicine: Innovations, Challenges, and Opportunities in Breast Cancer Treatment
Deadline	Manuscript Summary Submission Deadline 01 August 2024 Manuscript Submission Deadline 31 January 2025
Details	https://www.frontiersin.org/research-topics/62393/plant-derived-therapeutics-and-traditional-medicine-innovations-challenges-and-opportunities-in-breast-cancer-treatment
Editor(s)	Xinli Liang Associate Professor, Key Laboratory of the Education Ministry for Modern TCM Preparation, Jiangxi University of Traditional Chinese Medicine, Nanchang, China  Chen Chen Professor, The University of Queensland, Brisbane, Australia  Le SHI Assistant Professor, Nanjing University of Chinese Medicine, Nanjing, China





## Journal: Frontiers in Pharmacology

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Topic	Traditional Medicines in the Treatment of Infectious Diseases – Challenges and advances
Deadline	Manuscript Summary Submission Deadline 15 August 2024 Manuscript Submission Deadline 15 December 2024
Details	https://www.frontiersin.org/research-topics/63488/traditional-medicines-in-the-treatment-of-infectious-diseaseschallenges-and-advances
Editor(s)	Shanshan Guo Professor, Institute of Chinese Materia Medica, China Academy of Chinese Medical Sciences, Beijing, China  Wolf Dieter Rausch Associate Professor, University of Veterinary Medicine Vienna, Vienna, Austria  Zifeng Yang Professor, Guangzhou Institute of Respiratory Health, Guangzhou, China  Youhua Xu Doctorate, Macau University of Science and Technology, Taipa, Macao, SAR China







# Visiting scholar and Master of Medicine program in Hubei University of Medicine (HBUM)

# Welcome to join Prof. Xuanbin WANG's lab

#### About HBUM

Hubei University of Medicine, located at Shiyan in central China, is a medical school committed to nurturing healthcare professionals, integrating medicine with the disciplines of science, engineering and administration. Founded in 1965, the University has more than 120,000 alumni around the world. The university offers a wide range of programs across 18 schools covering more than 40 major areas of study. It has 1,027 full-time faculty, of whom 862 are master supervisors, 380 hold senior titles, and 215 hold doctoral degrees. It has an enrollment of 16,878 full-time undergraduate students. 1,665 postgraduate students, and 460 international students. It has the largest number of medical undergraduates in Hubei Province, and ranks Top 1 in undergraduate medical education among Hubei provincial-level universities.

The 6 affiliated hospitals are all Class A Tertiary Hospitals (the highest rating in China), with over 15,000 beds, 10 million out-patients, 0.5 million in-patients annually. Clinical Medicine is the top 3‰ in the global ESI ranking, while Pharmacology and Toxicology is the top 1%. The University has established close ties with over 30 universities and research institutions abroad in over 10 countries and regions, with program of student exchange, visiting scholars, expert lecturing, etc.

Hubei University of Medicine offers visiting research assistant (RA) and Master of Medicine (MM) programs for international students. A successful MM thesis should represent the result of the candidate's research which displays some originality and which demonstrates a sound understanding in the field of study and the appropriate research methods, and worthy of publication.



## **Postgraduate Opportunities**



#### About Prof. Xuanbin WANG's lab

Prof. Xuanbin WANG's lab, founded in 2007, focuses on Chinese medicines/natural products against diseases, especially cancers. He is also interested in Wudang Taoist folk medicine. Now, he has been granted more than 50 fundings from nation, province and university. He published 152 papers and wrote 12 books including 5 text books, such as Pharmacology of Chinese medicines (Chinese version and English version), Clinical Pharmacology (English version), Pharmacology (Chinese version), and Toxicology of Chinese Medicines (Chinese version).

To push the internationalization and modernization of Chinese medicine as well as Wudang folk medicine, Prof. Wang's group collaborate with experts from Germany, British, Belgium, Netherlands, Russia, Korea, Japan, Span, and Austria.



#### Scholarship and allowance

1,000 CNY per month allowance will be provided to RAs and MMs in Prof. WANG's group. RAs have priority opportunity to apply for MM as well as scholarship in the university.



#### Admission requirement

Bachelor's degree of Medicine, Surgery, Pharmacy, Pharmacology, Traditional Chinese medicine, and related disciplines. Chinese Language Proficiency Test: HSK3.

#### Research fields

Including but not limit in Pharmacy, Pharmacology, Chinese medicines and Wudang Taoist folk medicine.



## Enquiries



School of International Education, HBUM

Address: 30 South Renmin Road, Shiyan, Hubei Province, China.

Website: <a href="https://www.hbmu.edu.cn">https://www.hbmu.edu.cn</a>

Tel/Fax: +86-719-8895160 Email: admission@hbmu.edu.cn







# Postgraduate Opportunities

Opportunities in Europe

#### Germany



https://academicpositions.com/ad/cologne-graduate-school-ageing-research-cga/2022/12-fully-funded-phd-positions/181690?utm\_source=facebook&utm\_medium=cpc&utm\_campaign=scm-cga-092022+med-hi



https://www.humboldt-foundation.de/en/apply/sponsorship-programmes/humboldt-research-fellowship



https://www.daad.de/en/study-and-research-in-germany/



### Belgium

PhD Study in Belgium – A Guide for  $2024 \mid FindAPhD.com$  is a guide to understand the PhD in Belgium and to find one.

https://www.findaphd.com/guides/phd-study-in-belgium

150 PhD jobs in Belgium - Academic Positions is to find PhD opportunities in Belgium.

https://academicpositions.com/jobs/position/phd/country/belgium

University of Mons (UMONS): Select a PhD/Post-Doc topic - Université de Mons (umons.ac.be) is to find a PhD or a Post-Doc in UMONS.

https://web.umons.ac.be/en/recherche/le-doctorat/search-a-thesis-topic/

#### France

PhD in France - Subjects (PhD, Master's & Postdoc training) (campusfrance.org) is to find a PhD in France

https://doctorat.campusfrance.org/en/phd/offers

## **Postgraduate Opportunities**



#### Switzerland



52 Postdoc jobs in Switzerland - Academic Positions

https://academicpositions.com/jobs/position/post-doc/country/switzerland

# Postgraduate Opportunities

Opportunities around the world

#### Denmark

https://www.dtu.dk/om-dtu/job-og-karriere/ledige-stillinger/job?id=d2e2591d-1d14-43ff-8557-6e6ce0fc3a58

#### Ireland



#### Irish Research Council

https://research.ie/funding/

#### Taiwan

#### TCM PhD program Taipei

 $\underline{https://www.topuniversities.com/universities/taipei-medical-university-tmu/phd/phd-program-clinical-drug-development-herbal-medicine}$ 

TAIR - News - Job Postings (arabidopsis.org) : webpage with PhD positions in different fields and countries https://www.arabidopsis.org/news/jobs

#### Grants

Grants - Society for Medicinal Plant and Natural Product Research (GA) (ga-online.org) : FWO – flanders ; Horizon Europe ; IFS ; OECD

https://ga-online.org/grants/





# Freely Accessible Learning Material

Interesting articles

## Studying abroad





 $https://www.science.org/content/article/doing-research-abroad-felt-lonely-heres-how-i-made-friends?utm\_campaign=SciMag&utm\_source=Social&utm\_medium=LinkedIn$ 

An Introduction to Statistics: Choosing the Correct Statistical Test (ijccm.org):

This article provides a comprehensive overview of the myriad factors that influence the choice of a statistical test and identifies several statistical tests that are commonly utilized in practical application.?

https://www.ijccm.org/doi/pdf/10.5005/jp-journals-10071-23815

#### How Can Early Career Researchers Be More Involved With Scientific Societies?

https://www.enago.com/academy/how-can-early-career-researchers-be-more-involved-with-scientific-societies/

Writing a scientific article: A step-by-step guide for beginners - ScienceDirect: A guide for beginner to write a scientific article

https://www.sciencedirect.com/science/article/abs/pii/S1878764915001606

# Freely Accessible Learning Material

Online learning Platforms

Fantastic resource. Courses from all disciplines. Free to study. Accreditation available at a cost. Well worth exploring

- https://www.edx.org/
- https://englishforuniversity.com/resources/
- https://owl.purdue.edu/





#### Webinar- How To Avoid Plagiarism?

Webinar to give information re plagiarism

- https://www.youtube.com/watch?v=sHhGY4c61v4
- https://www.youtube.com/watch?v=33R43YF9Dzl

# Functional Metabolomics Lab - YouTube : YouTube channel that upload summer schools, seminars and workshops on Metabolomics

https://www.youtube.com/@functionalmetabolomics/videos

(Galaxy Training! (galaxyproject.org): A platform designed for on-site education and training in bioinformatics, omics, and other related areas is available.

Link to Galaxy (usegalaxy.eu) which is a scientific workflow, data integration, and persistence and publishing platform for computational biology. It aims to provide research scientists who do not have programming experience with access to computational biology. The platform offers a multi-omics treatment solution.

## AI tips and tools

Mushtaq Bilal, PhD (@MushtaqBilalPhD) / X (twitter.com) : Al tips, tutorals and tools to simplify the academic writing process.

https://twitter.com/MushtaqBilalPhD

Ilya Shabanov (@Artifexx) / X (twitter.com) : The Effortless Academic: Tools, Note-Taking Strategies and AI tutorials for the modern academic.

https://twitter.com/artifexx

Asad Naveed (@dr\_asadnaveed) / X: Posts on research, academia & Al.

https://x.com/dr\_asadnaveed





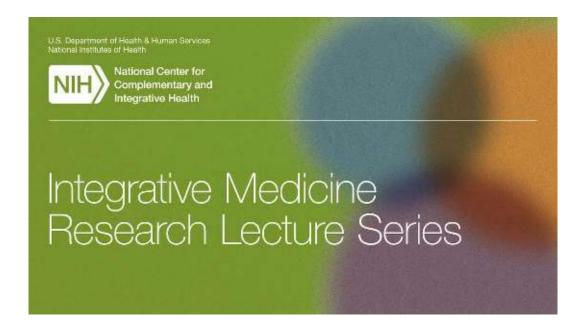
# Freely Accessible Learning Material

Free Lecture series



https://www.nccih.nih.gov/news/events/imlectures?nav=li







#### SuperNatural 3.0 (bioinf-applied.charite.de/supernatural\_3/index.php)

https://bioinf-applied.charite.de/supernatural\_3/index.phpsupernatural\_3/index.php)

Predict the pharmacological target of a compound

Find a compound supplier

Find the original species of a compound

Predict which compounds will target a metabolic pathway (KEGG search)

Predict the metabolic pathways targeted by a compound

Predict compounds targeting a particular target (protein or gene); as well as similar compounds

Predict the taste of compounds (sweet, salty, bitter, etc.)

Reference: Kathleen Gallo, Emanuel Kemmler, Andrean Goede, Finnja Becker, Mathias Dunkel, Robert Preissner, Priyanka Banerjee, SuperNatural 3.0—a database of natural products and natural product-based derivatives, Nucleic Acids Research, Volume 51, Issue D1, 6 January 2023, Pages D654-D659, https://doi.org/10.1093/nar/ gkac1008



# Freely Accessible Learning Material

## Free Lecture series

https://www.metaboanalyst.ca/home.xhtml

#### MetaboAnalyst 6.0 (MetaboAnalyst):

LC-MS Spectral Processing

MS/MS peak annotation

**Network Analysis** 

Statistical Analysis [single factor] and [Metadata table]

Statistical Meta-analysis

Biomarker Analysis

Pathway Analysis

Functional Analysis [MS Peaks to Pathways]

**Enrichment Analysis** 

Functional Meta-analysis of MS Peaks

Causal Analysis via mGWAS

Dose Response Analysis

**Power Analysis** 

Reference: Zhiqiang Pang, Yao Lu, Guangyan Zhou, Fiona Hui, Lei Xu, Charles Viau, Aliya F Spigelman, Patrick E MacDonald, David S Wishart, Shuzhao Li, Jianguo Xia, MetaboAnalyst 6.0: towards a unified platform for metabolomics data processing, analysis and interpretation, Nucleic Acids Research, 2024;, gkae253, https://doi.org/10.1093/nar/gkae253



#### "Useful tools/databases for natural products datamining"

KNApSAck (KNApSAcK Family Top Page):

http://www.knapsackfamily.com/KNApSAcK\_Family/

Find biomarkers associated with a disease.

Find species on the world map.

Find compounds described in a species.

Find structures close to the compound you are looking for (TWINS)

Find the species of origin of a compound + the organ containing it.

Find all compounds with a specific activity.

https://biosig.lab.uq.edu.au/pkcsm/

pkCSM (pkCSM (uq.edu.au)):

Predicting small-molecule pharmacokinetic (ADME-Tox) properties using graph-based signatures

https://biosig.lab.uq.edu.au/deeppk/

Deep-PK (Deep-PK | Home (uq.edu.au)):

Deep learning-based PK and toxicity prediction (ADME-Tox).

Use Graph Neural Networks and graph-based signatures as a graph-level feature to yield the best predictive performance.



## Great Selection of Webinars - From the Sustainable Herbs Programme

Botanical Supply Sustainability in the Time of COVID

https://vimeo.com/457513678

Plants, People & Culture: The Science of Ethnobotany

https://vimeo.com/460565477



The Business Case for Sustainability

https://vimeo.com/465447452

Cross-cultural Understanding of Local Herbal Knowledge and Chinese traditional Daodi Materia Medica

https://vimeo.com/668389245

Sourcing Botanicals and Quality Control: A Conversation with Michael Heinrich and Anthony Booker

https://vimeo.com/642467580

Introducing the WildCheck Report: Assessing Risk & Opportunities of Trade in Wild Plant Ingredients

https://vimeo.com/704246800

Certifications as a Path to Sustainability? A Conversation about the Opportunities and Limits of Certification

https://vimeo.com/540314958



AND MANY MORE

https://vimeo.com/457513678







## Buchi Mini series of webinars — covering Drug Discovery Using Natural Resources



The speaker: Prof. Dr. Elfahmi

There is a separate registration requirement for each webinar.

https://cloud.infohub.buchi.com/drug-discovery/with-prof-elfahmi?utm\_source=email1&utm\_medium=email&Id=00Q3X00001MfiqzUAB&id\_mc=34316261&utm\_campaign=gl-2022-webinars-mini-webinars-with-prof-elfami&cloudpage\_id=4865&cloudpage\_id=&cloudpage\_



## Episode I: Drug Discovery and Development Workflow

Discover four essential steps in drug discovery and development: literature review & preliminary screening, biology development, physiochemical & pharmaceutical development. Gain a process overview for the isolation of active compounds from plants using bioactivity-guided fractionation.



## Episode 2: Concentration of Natural Products

Explore the workflow for processing of natural compounds: sampling & crushing, extraction & concentration; fractionation & purification; structure identification and product packaging. Learn about extract/fraction concentration through solvent removal by rotary evaporation. Find challenges and solutions to efficiency, foaming, bumping, plus optimization tips for temperature difference, pressure values, flask size, rotation speed and condenser loading.



## Episode 3: Purification Techniques for Natural Products

Learn fundamentals and protocols for relevant methods, including liquid-liquid fractionation (phase separation), winterization, microporous resin chromatography, flash and vacuum liquid chromatography, radial chromatography, crystallization, preparative column chromatography. See it in action with a case study on the purification of asiaticoside & madecassoside from *Centella asiatica*.



## Episode 4: Past, Present and Future of Herbal Medicines

Gain a comprehensive overview of the history of plant use in drugs and pharmacy, including milestones in the development of herbal medicines. See current global use, benefits and challenges facing alternative or traditional medicine. Look into the future of herbal medicine development with predictions on how this branch will develop.







## International Conferences

Conference information



Lots of interesting and relevant conferences to be found at these links.



Traditional medicine Conferences in 2024

https://waset.org/traditional-medicine-conferences

#### **Phytochemistry Conferences**

https://waset.org/phytochemistry-conferences

Top 43123 Conferences, Conference Alerts 2024-2025, Conference 2024-2025, Conferences 2024-2025 (worldconferencealerts.com)

https://www.worldconferencealerts.com/

# 2024 Conference Main (acupunctureresearch.org)

https://www.acupunctureresearch.org/conference

## Home | Meghaz Meetings

https://www.meghazmeetings.com/iestam-2024/

Traditional Chinese Medicine Conferences 2024/2025/2026 (conferenceindex.org)

https://conferenceindex.org/conferences/traditional-chinese-medicine



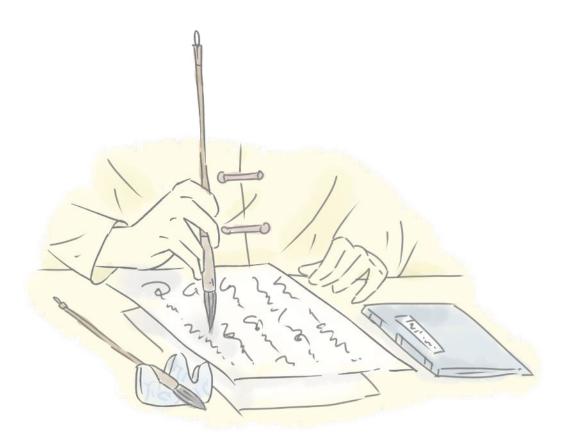




## China Scholarship Council (CSC) – Trinity College Dublin Joint Scholarship Programme



Details: https://www.tcd.ie/study/international/scholarships/postgraduate/csc/



## **Education program opportunities**





香港浸會大學 HONG KONG BAPTIST UNIVERSITY







Doctor of Philosophy (PhD) in Biomedical Sciences/ Chinese Medicine/ Translational Medicine/ Pharmacy in Chinese Medicine School of Chinese Medicine, Hong Kong Baptist University

https://scm.hkbu.edu.hk/en/education/research-postgraduate.



## 香港中文大學中醫學院

School of Chinese Medicine



PhD in Chinese Medicine School of Chinese Medicine, The Chinese University of Hong Kong

Details: http://www.scm.cuhk.edu.hk/en-gb/programs/research-masterdoctoral-program/phd-in-chinese-medicine



澳門大學 UNIVERSIDADE DE MACAU



中藥質量研究國家重點實驗室(澳門大學)

中華醫藥研究院 Instituto de Ciências Médicas Chinesas





Doctor of Philosophy in Biomedical Sciences Institute of Chinese Medical Sciences, University of Macau

Details: https://sklgrcm.um.edu.mo/ycmdbs/





LKS Faculty of Medicine The University of Hong Kong 香港大學李嘉誠醫學院





PhD in Chinese Medicine School of Chinese Medicine, The University of Hong Kong

Details: https://scm.hku.hk/Views/Programme/English-MPhilPhD.html



## **Bi-monthly meme**

Vote the first "Bi-monthly meme" here: https://strawpoll.com/40Zm46Mqmga Which one is your favourite?





MEMEI



MEME 2

# planning research with your team like:

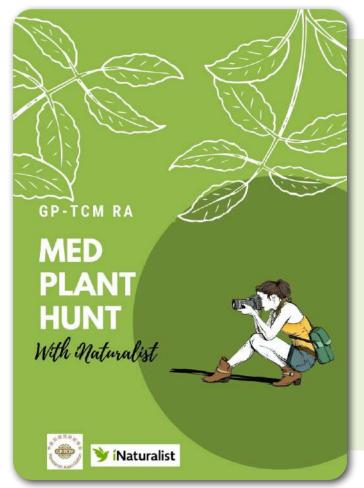


MEME 3





#### Med Plant Hunt with iNaturalist



In order to promote conservation of wildlife, especially wild medicinal plant and TCM herbs, and their environment, a challenge on "Med Plant Hunt" is launched.

The aim of challenge is to encourage our members to identify and recognize the morphological features of living wild medicinal plant in nature.

#### **Eligibility:**

Med Plant Hunt is free and open to all GP-TCM RA members.

Entries must abide by the guidelines below.

#### **Rules & Guidelines:**

iNaturalist is a nature app to help you identify the animals and plants around you and provide a platform to connect you and experts to share about nature. Users can record and share their observations and the findings can enrich scientific data repositories like the Global Biodiversity Information Facility.

Create your own account and share your wild medicinal plant observation to mobile iNaturalist app or iNaturalist website.

#### How to enter:

- 1. Complete the registration form with iNaturalist user ID.
- 2. Make the observation of living wild medicinal plant around you with iNaturalist app/website.
- 3. With the submitted iNaturalist ID, your observation for entry will be automatically recorded and results will be announced in the coming issue of the newsletter.





How to join

For inquiries about Med Plant Hunt, please send email to

gptcm\_medplanthunt@outlook.com







Registration form

How to upload





#### **Med Plant Hunt with iNaturalist**

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- Adventurous Observer: The highest number of observed species
- TCM Photographer: Best photo shoot
- Lucky Observer: Observe rare species



The selected entries will be published on the next issue of the newsletter. An electronic certificate and a complementary gift (e.g. water bottle ideal for outdoor activities, sponsored by Macau Pharmacology Association) will be given.



# MED PLANT HUNT With inaturalist

## **Med Plant Hunt Registration Form**

Name: Email:

Affiliation: Country or region:

iNaturalist account information

User name:

User email:

(Please send the form to pptcm\_medplanthunt@outlook.com for registration)









Registration form



How to upload



## Chinese Materia Medica Highlights



Longan (*Dimocarpus longan*, Sapindaceae, 龙眼 , left) and lychee (*Litchi chinensis*, Sapindaceae, 荔枝 , right)





Native to China, longan and lychee are famous fruit trees and excellent nectar source plants. They have long been cultivated in south-western, southern, and south-eastern China (especially in Guangdong and Fujian provinces) since ancient times.

The aril (outer covering of a seed) of *Dimocarpus longan* (longan arillus) and the dried ripe seed of *Litchi chinensis* (litchi semen) are classic medicinals official in Chinese Pharmacopeia. First recorded in the text of *Divine Husbandman's Classic of Materia Medica* (*Shen Nong Ben Cao Jin*) of the Eastern Han Dynasty (25~220), longan arillus tonifies the heart and spleen, nourishes the blood, and calms the spirit. It can be administered alone or in combination with other medicinals for the treatment of heart and spleen deficiency and *qi* and blood insufficiency manifested as palpitation, insomnia, forgetfulness, and sallow complexion. First appeared in the text of *Extension of the Materia Medica* (*Ben Cao Yan Yi*) of the Song Dynasty (960~1279), litchi semen regulates *qi*, dissipates nodules, disperses cold, and alleviates pain. It is indicated for pain in the groin or testicles due to cold congealing in the liver channel, and abdominal and epigastric pain due to liver *qi* stagnation.

In addition, other fruit parts, leaves and roots of both plants, as well as the flower and tree bark of longan, are used as folk medicinals in certain regions of south-western, southern, and south-eastern China

## 龙眼

闽南佳果近球圆 资益为良纲目篇 开胃安神能养血 食之爽口助人眠

## 荔枝

岭南初遇在坡旁 爽脆晶莹众果王 苏轼诗成三百啖 笑妃一骑又尘扬

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).



Just click here to enjoy the video:

https://uofmacau-my.sharepoint.com/xv/g/personal/yc37514\_um\_edu\_mo/Edfgk6s99mRNnCr2\_pdq814BFbpGj6t3jl9llTc2dDDjvA?nav=e ylyZWZlcnJhbEluZm8iOnsicmVmZXJyYWxBcHAiOiJPbmVEcml2ZUZvckJ1c2luZXNzliwicmVmZXJyYWxBcHBQbGF0Zm9ybSl6lldlYiIsInJlZmVyc mEsTW9kZSl6lnZpZXciLClyZWZlcnJhbFZpZXciOiJNeUZpbGVzTGlua0NvcHkifX0&e=z4DCL5



## Chinese Materia Medica Highlights



Longan (*Dimocarpus longan*, Sapindaceae, 龙眼 , left) and lychee (*Litchi chinensis*, Sapindaceae, 荔枝 , right)





# The May-June 2024 Newsletter of GP-TCM Research Association



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