



ASEAN

# CHINA-ASEAN TRADITIONAL MEDICINE

*Edited by*

Prof. Deng Jiagang (China)

Dr. Jintanaporn Wattanathorn (Thailand)

Volume ①



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## Introduction to Editor-in-Chief ( English Version )

### Prof. Deng Jiagang

Prof. Deng Jiagang, professor of pharmacology, lifetime professor, chief expert of Science Research Center of Guangxi University of Chinese Medicine, director of Guangxi Key Laboratory of Efficacy Study on Chinese Materia Medica, director of Guangxi Collaborative Innovation Center for Research on Functional Ingredients of Agricultural Residues, director of Joint Laboratory of Sino-Thai Traditional Medicine, director of Sino-Australia Joint Laboratory for Modernization of Traditional Medicines, recipient of State Council Expert special allowance, national outstanding science and technology expert, Guangxi outstanding expert, academic and practical instructor of 6<sup>th</sup> batch national senior TCM practitioner. Prof. Deng has been engaged long term in the research of Traditional Chinese Medicine basic theories and pharmacodynamic screening. In spite of that, Prof. Deng is also the pioneer proposed new hypothetical theory of “Medicinal Bias Existed in Chinese Medicine in Mild Property” and innovative research ideas on “Chemistry of the Chinese Medicine” “Pharmaceutical Research on Agricultural Waste” “Chinese Materia Medica in Guangxi”, etc. In the year of 2005, Prof. Deng had established the Guangxi Key Laboratory of Efficacy Study on Chinese Materia Medica. While, in the year of 2009, Prof. Deng established the first Research Center of Functional Ingredient Screening and Product Development of Agricultural Residues. In the year of 2013, Prof. Deng initiated the first marine pharmacology discipline, which is the key discipline in the State



Administration of Traditional Chinese Medicine in China. So far, Prof. Deng has been authorized 1 national new drug certificate, 1 national health food approval, 1 hospital preparation approval and 9 patents. Furthermore, Prof. Deng has also published more than 450 academic journal papers and 16 monographs. Since 2006, Prof. Deng has assumed the projects of *China-Thailand Joint Committee on Science and Technology Cooperation* funded by the Ministry of Science and Technology of the People's Republic of China to establish scientific and technology cooperation and interaction with Thailand and other ASEAN countries.



#### Dr. Jintanaporn Wattanathorn

Dr. Jintanaporn Wattanathorn, associate professor, is head of the Department of Physiology, Faculty of Medicine. Director of the Integrative Complementary Alternative Medicine Research and Development Center, Khon Kaen University. Director of Joint Laboratory of Sino-Thai Traditional Medicine(Thai-side). She acquired PhD degree in neuroscience in 1994. She enjoys great reputation in academic and profession field throughout the world.

Dr. Jintanaporn is engaged in Pharmacological Effect of Nutraceutical Product and Medicinal Plant, Neuroendocrine Neurosciences, Physiology of Exercise, Psychoneuropharmacology, Drug Delivery and Blood Brain Barrier, Neurotoxicology. Through years of research, she has published 47 academic papers.

## Introduction to Editor-in-Chief ( Chinese Version )

### Prof. Deng Jiagang

Prof. Deng Jiagang, professor of pharmacology, lifetime professor, chief expert of Science Research Center of Guangxi University of Chinese Medicine, director of Guangxi Key Laboratory of Efficacy Study on Chinese Materia Medica, director of Guangxi Collaborative Innovation Center for Research on Functional Ingredients of Agricultural Residues, director of Joint Laboratory of Sino-Thai Traditional Medicine, director of Sino-Australia Joint Laboratory for Modernization of Traditional Medicines, receipt of State Council Expert special allowance, national outstanding science and technology expert, Guangxi outstanding expert, academic and practical instructor of 6<sup>th</sup> batch national senior TCM practitioner. Prof. Deng has been engaged long term in the research of Traditional Chinese Medicine basic theories and pharmacodynamic screening. In spite of that, Prof. Deng is also the pioneer proposed new hypothetical theory of “Medicinal Bias Existed in Chinese Medicine in Mild Property” and innovative research ideas on “Chemistry of the Chinese Medicine” “Pharmaceutical Research on Agricultural Waste” “Chinese Materia Medica in Guangxi”, etc. In the year of 2005, Prof. Deng had established the Guangxi Key Laboratory of Efficacy Study on Chinese Materia Medica. While, in the year of 2009, Prof. Deng established the first Research Center of Functional Ingredient Screening and Product Development of Agricultural Residues. In the year of 2013, Prof. Deng initiated the first marine pharmacology discipline, which is the key discipline in the State



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### Prof. Hou Xiaotao

Prof. Hou Xiaotao, Doctor of Pharmacology, Professor in Guangxi University of Chinese Medicine, Supervisor of doctorate. Academic leader in the key discipline Marine Chinese Medicine, State Administration of Traditional Chinese Medicine of the People's Republic of China. Member of the analysis of Chinese medicine chapter standing committee, China Association of Chinese Medicine. Member of the chronic diseases recuperation specialized standing committee, China Association of Health-Protection Food.

She is long term engaged in the research of active components of natural and traditional medicine. She has presided 1 project supported by National Natural Science Foundation of China, 1 projet supported by Ministry of Science and Technology of the People's Republic of China and over 10 provincial projects. Prof. Hou has been authorized 3 national invent patents and published more than 80 journal articles. In recent years, she has devoted herself to conduct research on traditional medicine in cooperation with ASEAN countries. She successfully developed the first Professional Database of Medicinal Plants of China and Thailand as a host and published more than 4 academic monographs.





## Foreword



Enjoying the abundant resources of medicinal plants and a long history of medical practice, China and ASEAN countries have accumulated a wealth of experiences in the traditional application of medicinal plants and gained great achievements on modern research and product development of traditional materia medica.

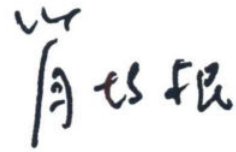
On the basis of the solid partnership with his counterparts in ASEAN countries, Prof. Deng Jiagang, Guangxi University of Chinese Medicine, has organized a team with experts from China and 7 ASEAN countries, including Thailand, Vietnam, Malaysia, Myanmar, Laos, Cambodia and the Philippines, and accomplished the compilation of *China-ASEAN Traditional Medicine*, the first traditional materia medica monograph in China with efforts of Chinese and 7 ASEAN professionals, by 5 years of hard-working on selecting, accumulating and analyzing the literature and data resources of 350 commonly used species of traditional medicinal plants in China and ASEAN.

With high-definition pictures, the content of each plant in this book is composed of 13 portions, including scientific name, family name, synonym, local name, common name, medicinal part, description, ecology, distribution, chemical composition, pharmacological effects, use and caution. The information on the local name and local traditional application are the most distinctive part, which makes this work a unique one with its traditional feature.

Considering its obvious scientificity, practicality, and readability, *China-ASEAN Traditional Medicine* is a unique international science composition with great academic value. Its publication will set a great demonstration for the literature study on traditional medical resources among China and ASEAN, strengthen the collaboration and exchange on traditional medicine between China and ASEAN countries, as well as enhance the academic status of Chinese traditional medicine in ASEAN countries.

As one of the professionals participating in the long-term collaborative study on medicinal

plants and traditional medicine with ASEAN partners, I am very pleased to present the foreword for this forthcoming monograph at this moment.

Handwritten signature in black ink, consisting of stylized Chinese characters.

By Xiao Peigen

Academician of Chinese Academy of Engineering

Honorary Director, the Institute of Medicinal Plant Development Chinese Academy of Medical Sciences

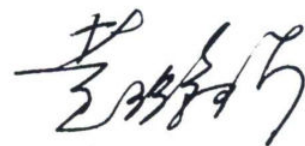
August 20, 2018, Beijing

## Foreword

Disease prevention and treatment with traditional medicine is the precious experience accumulated through long-run practice of health maintenance among numerous ethnic groups all over the world. Since southern China and ASEAN countries are all located in the tropical and subtropical climate zone, they share similar natural environment, biodiversity and even the application of medicinal plants, and they also have their own features; therefore, cooperation and exchanges on traditional medicine with various countries are of great significance to promote the development of traditional medicine in the world. As I known, taking the geographical advantages of Guangxi, Prof. Deng Jiagang and his team devoted themselves into the scientific researches and academic exchanges between Guangxi and ASEAN countries and finally made great achievements, of which *China-ASEAN Traditional Medicine* shall be counted as one.

This book is the pioneering work on traditional materia medica in China ever done through the multilateral cooperation among China and ASEAN countries, in the field of pharmacognosy, phytochemistry, pharmacology and traditional application, with high orderliness, preciseness, professionalism and practicability. Its academic value is also enhanced by its Chinese-English bilingual text, which expands its accessibility to more readers. I strongly believe that the *China-ASEAN Traditional Medicine* will provide a good demonstration on traditional medicine study for China and ASEAN, which encourages the communication and collaboration between China and the world in the field of traditional medicine, so as to jointly make greater contributions to the global health!

With great pleasures.



By Huang Luqi

Academician of Chinese Academy of Engineering  
Director, China Academy of Chinese Medical Sciences

September 6, 2018, Beijing

# Preface

Diplomatic friendship between China and ASEAN countries has long been established. Since the opening of the Maritime Silk Road in Qin and Han dynasty, the business trade, technology and culture of ancient China have been exchanged with the East Asia and European countries through terrestrial Silk Road. At the same time, the business trade and culture communications have also been interchanged with the ASEAN countries through the Maritime Silk Road, departing from Hepu, Guangxi. While, traditional medicine exchange is one of the most important parts of the China-ASEAN exchange. Herbs/spices products had been transported through the northern coastline of Beibu Gulf to Hepu, then via Nanliu River to all over the regions of China mainland, including frankincense, myrrh, *Rosa banksiae*, *Agastache rugosa*, *Hierochloe odorata*, cinnamom, *Calamus draco* Willd., *Dipterocarpus turbinatus* Gaertn. f., *Magnolia officinalis*, *Terminalia chebula*, clove, *Alpinia oxyphylla*, agarwood, areca nut, *Phyllanthus emblica*, *Acronychia pedunculata*, cardamom, anise, etc. (Bai Jiqing, et al. Preliminary Discussion on Silk Road with Chinese Traditional Medicine. Mod Chin Med, 2016). Through communications, traditional Chinese medicine was spreaded to ASEAN countries, together with the local traditional medicine, traditional medicine made outstanding contributions to the health of Ancient China and the ASEAN countries.

Traditional medicine has been recognized as the jewel of the wonderful traditional culture in all countries around the world. It is known as the wisdom evolved from the accumulated experience through long-term efforts and practices in fighting diseases by people. Medicinal plant is an important part of traditional medicine. Because of the location of southern China and ASEAN countries in the sub-tropical and tropical regions, the unique plant resources and medicinal herbs from these countries