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The status and potential of Chinese marine materia medica resources

Xiu-Mei Fu^{1,2,3}, Meng-Qi Zhang^{1,2} and Chang-Lun Shao^{1,2}

¹Ocean University of China, China

²Qingdao National Laboratory for Marine Science and Technology, China

³Ocean University of China, China

Chinese marine materia medica (CMMM) is a vital part of traditional Chinese medicine (TCM). Compared with terrestrial TCM, the CMMM derived from specific marine habitats possesses peculiar chemical components with unique structures reflecting as potent pharmacological activities, distinct drug properties, and functions. Nowadays, CMMM appears to be especially effective in treating such difficult diseases as cancers, diabetes, cardio-cerebrovascular diseases, immunodeficiency diseases and senile dementia and therefore has become an important medicinal resource for the research and development of new drugs. In recent years, such development has attracted wide attention in the medical field. In this study, the CMMM resources in China were systematically investigated and evaluated. It was found that the historical experiences of Chinese people using CMMM have continuously accumulated over a period of more than 3,600 years and that the achievements of the research on modern CMMM are especially outstanding. By June 2015, 725 kinds of CMMMs from Chinese coastal sea areas have been identified and recorded, covering 1,552 species of organisms and minerals. More than 3,100 traditional prescriptions containing CMMS have been imparted and inherited. However, the number of CMMS is less than terrestrial TCM, which contains 8188 kinds of terrestrial TCM, concerning more than 12100 species of medicinal terrestrial plants, animals, and minerals. In the future, the research and development of CMMM should focus on the channel entries (TCM drug properties), compatibility, effective ingredients, acting mechanisms, drug metabolism as well as quality standard. Our study reveals that the potential of CMMM development is worth expecting.

Biography

Xiu-Mei Fu received his Ph.D. degree in marine medicinal bioresources from Ocean University of China, Qingdao in 2008. From 2000 to 2002, she studied for environment and resource science as a visiting scholar at University of Duesseldorf, Germany. Since 2006, she is an associate professor of marine medicinal bioresources at Ocean University of China. She is a member of the Commission of Shandong Oceanology and Limnology Special Committee, China. She has published more than 40 papers in reputed journals and 3 monographs.

xiumei@ouc.edu.cn

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