Key Issues in Modernization of Traditional Chinese Medicine

De-an Guo
Shangai Research Center for TCM Modernization, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai 201203, P.R. China

Abstract: Traditional Chinese medicine (TCM) has a long history in China and is the treasure in Chinese traditional culture. It greatly contributed to the growth and health of Chinese people and gradually aroused the attention to the world. Due to its effectiveness in some chronic diseases, TCM has attracted great interest from the scientists in the field of pharmaceutical research and development and big pharma. However, due to the features of Chinese medicine with extreme complexity and lack of solid scientific evidence, it is far from the fully understanding of its safety, efficacy, mode of action, etc. Therefore, around ten years ago, Chinese government launched a plan for modernization of traditional Chinese medicine aiming at provide more scientific evidence for the safety, efficacy and quality, and also develop modern TCM products for the global benefit in various health care systems. In recent years, great progress has been made in the research on the chemistry, quality control, pharmacology and mechanism of TCM. At the same time, TCM new drug research and development has also progressed rapidly. For example, artemisinin and its derivatives against malaria, hupzine A for the treatment of senile dementia are the successful stories for pure chemical entity drugs from TCM. In addition, the successful TCM compound formula new drugs in the market include Fufang Danshen Dripping Pills, Diao Xinxuekang, etc. In the present lecture, the advantages and pitfalls of TCM will be addressed and possible solutions will be projected. Concrete research cases will be exemplified in TCM quality control, safety concerns, and mode of action research, etc.