



Fu xie theory: a theoretical basis for the future of medicine

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Global interest in traditional and complementary medicine (T&CM) is undergoing a revival. A number of T&CM, such as traditional Chinese medicine, have been used for society health care for thousands of years. According to the World Health Organization (WHO) 2019 report (1), lack of research data was raised by 99 Member States to be their top difficulty they faced with regard to regulatory issues related to the practice of T&CM. To learn how T&CM work and to elucidate their underlying mechanisms of action in diseases prevention and treatment remains an important subject.

The article entitled “*A brief introduction of fu xie*” is a case in point. It aims to review and evolve the fu xie theory, in regards to the advances in the doctrine of febrile disease and the high theoretical and practical significance in immune-related diseases.

Some fundamental theories of T&CM have gradually been found its material bases, like the link between gut microbes and lung disease (2) partially reflecting the doctrine of lung and the large intestine being interior-exteriorly related. However, the theoretical and practical principle of fu xie associating with immune-related diseases is a research area that most of the mechanisms are still unknown. In the ancient Chinese medical books, as the author mentioned in this article, fu xie had six categories; it is closely connected with some insidious regions, e.g., skin, muscles, bones, moyuan (membrane source), Shaoyin (kidney meridian), fatty membrane of Sanjiao; it has unique pathogenic features, etiologies and clinical manifestations, as well as accordingly therapeutic methods.

To keep a child healthy, keep him feel a little hungry

and cold. This was addressed by a famous pediatrician Shirong Zeng of the Yuan Dynasty in his book “*Huo You Xin Shu*” (3). For hundreds of years, it was only an old saying based on the theory of traditional Chinese medicine. Until Prof. Ohsumi, who won a Nobel prize in 2016, found that (4-6) in response to nutrient starvation, autophagy (macroautophagy) as an intracellular recycling system played an important role in human disease and physiology. One of the primary function of autophagy, i.e., the starvation response in single-cell organisms such as yeasts, it extends up through to humans. Dysfunction of autophagy is associated with a number of diseases, such as cancer, neurodegeneration, microbial infection and ageing (7). Similarly, the fu xie theory Prof. Zhang and his colleague provided through this review, might someday become a key theoretical basis of certain mechanism that would attract the interests of scientists and clinicians to harness its process for the purpose of improving human health.

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