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## Herbal hepatotoxicity: New advances, challenges and rational usage

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Herbal hepatotoxicity, an unresolved critical issue which impacts clinical safety of herbal remedies worldwide, has been recognized for many years, but new herbal hepatotoxins are constantly identified. In China, it is newly estimated that nearly 1/4 of drug-induced liver injury (DILI) cases are attributed to herbal medicine and another 1/2 of DILI cases cannot exclude the attribution of herbal medicine. Herbal hepatotoxicity is a fast expanding problem threatening people's health, but recent researches are still insufficient to solve it. First of all, the causality identification of herbal medicine-induced liver injury (HMILI) is quite difficult and needs lots of effects to achieve fairness due to the complicated composition of herbal medication, as well the frequent combinations with chemical drugs. In addition, early diagnosis of HMILI is challenging yet some cutting-edge techniques (e.g. microRNA array) provided sanguine visions. The fast advances in system biology, including translational toxicology, omics and system biology, network toxicology, pharmacogenomics and pathotoxicology, etc., provide powerful support to HMILI investigation. Most importantly, the rational uses of herbal medicines are helpful to avoid HMILI even the hepatotoxicity indeed exists. In Chinese 5000-years history of herb uses, some theory, principles and procedures to avoid liver injury of herbal medicines are documented and such advances should be paid more attention by the researchers and physicians.

### Biography

Jia-bo Wang has completed his PhD from Chengdu University of Traditional Chinese Medicine and postdoctoral studies from the Institute of Automation, Chinese Academy of Sciences. He currently serves on the China Military Institute of Chinese Medicines, 302 Military Hospital, leading the translational research group on herbal hepatotoxicity. He has published more than 45 papers in reputed journals and serving as a guest editor in the *Frontiers in Pharmacology*. His academic achievements include the Rank 2 National Science and Technology Progress Award of China and Rank 1 Science and Technology Award of China Association of Chinese Medicine.

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