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Metal Element on Non-alcoholic Fatty Liver Disease(NAFLD)

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Our group has been devoted to researching the mechanism, development and treatment of the diseases under the guidance of Traditional Chinese Medicine (TCM) theory through metabolomics for many years. Results of the researches indicated that the “Tongbing Yizheng” theory, namely the same disease could be divided into different groups based on the TCM theory, has its substantial basis at the metabolic level. Meanwhile, we also found that some metal elements played a role in the classification of TCM syndrome. So we introduce the metabolomics basing on ICP-MS and HPLC-ICP-MS which is a new member of the omics family into our research on the substantial basis of dampness - heat Syndrome, one of common syndromes in TCM. Twenty-six elements were quantitatively detected in the serum samples of model rats with dampness - heat Syndrome, which was combined with sesum metabolomics to investigate the connotation of dampness-heat syndrome. Eleven differential metabolites and 4 changed elements including Zn, Fe, Se and Cu were found between normal group and dampness-heat syndrome group. After the pathway analysis it was found that the dampness-heat syndrome was related with cyanoamino acid metabolism, nitrogen metabolism, thiamine metabolism, butanoate metabolism, mineral absorption, two-component system and ABC transporters. The present results indicate that the combination of metabolomics and metabolomics could provide an approach to research the TCM subtypes of diseases.

Biography

Yongyu Zhang has completed his PhD from Meiji Pharmaceutical University in Japan, 2000. He is a Professor of Shanghai University of Traditional Chinese Medicine. He has published more than 20 papers in reputed journals and has been serving as an Editorial Board Member of 3 journals.

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