Reviewer's report

**Title:** Sho-saiko-to, a traditional herbal medicine, regulates gene expression and biological function by way of microRNAs in primary mouse hepatocytes

**Version:** 1  **Date:** 30 September 2013

**Reviewer:** Imhoi Koo

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The authors investigated that Sho-saiko-to (SST) regulated genes expression by way of microRNAs in primary mouse hepatocytes by integrating both genes and microRNAs expression at a whole genome level. They identified that up-regulated or down-regulated genes by SST could be possibly regulated by microRNAs with association of specific pathways.

In general, the work presented by authors is interesting and provides novel insight into the molecular mechanism induced by SST. The analytical methods used by authors are well-designed. However there are minor points to be addressed more in detail to provide clear understanding of the manuscript.

Comment 1: Author’s approach is interesting in bioinformatic point of view. However, description about analytical process is too simple. Please explain the analytical method more in detail. Schematic diagram representing the analytic process will be helpful to understand the author’s method.

Comment 2: Roles of core genes (Figure 4) on the biological activities of SST should be described in Discussion section.

Minor comment: Y-axis in Figure 1B is log ratio of base 2?

**Level of interest:** A article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.