Author's response to reviews

Title: MicroRNA signatures associated with diagnosis and prognosis of patients with intrahepatic cholangiocarcinoma

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Dear Editors:

On behalf of my co-authors, I am submitting the enclosed paper entitled “MicroRNA signatures associated with diagnosis and prognosis of patients with intrahepatic cholangiocarcinoma” for possible publication on “BMC Cancer”.

All authors have read and approved the manuscript and claim that this manuscript is not under consideration elsewhere.

In this study, based on the miRNA expression profiles detected by a custom microarray containing 1094 probes, we found that 158 miRNAs are differentially expressed between intrahepatic cholangiocarcinoma (ICC) and normal intrahepatic bile duct (NIBD). A 30-miRNA signature consisting of 10 up-regulated and 20 down-regulated in ICC from the 158 miRNAs was established for distinguishing ICC from NIBD with 100% accuracy. Another 3-miRNA signature was identified for predicting prognosis of ICC patients. Based on the 3-miRNA signature, we constructed a formula to compute risk score for each patient. The patients with high-risk had significantly lower overall survival and disease-free survival than those with low-risk. The expression level of the 3 miRNAs detected by microarray was verified by qRT-PCR. Multivariate analysis indicated that the 3-miRNA signature was an independent prognostic predictor. Our data suggest that the 30-miRNA signature and the 3-miRNA signature might be potential biomarkers for diagnosis and prognosis of ICC, respectively. Further studies focusing on these miRNAs may shed light on the mechanisms associated with ICC pathogenesis and progression.

The normalized microarray data are available at National Center for Biotechnology Information Gene Expression Omnibus
(http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?token=wdaheokqtvgxrgf &acc=GSE53870) and the accession number is GSE53870.

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Thank you very much for consideration!

Sincerely Yours,

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