ID No.	K2103
Project Title	Exploration of novel carcinogenesis processes by elucidating genomic signatures in Asian cancers
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Report

We have acquired additional cholangiocarcinoma frozen fresh tissues, in addition to those that we already had from Japan, Taiwan, and Thailand (10-15 cases from each country). Eight new tissues are cholangiocarcinoma tissues from Taiwan. Besides, five new normal bile duct tissues are also obtained. Suitable quality DNA has been extracted from these tissues, and WGS has been performed. Preliminary on-going analyses identified nine tissues with signature 22 (AA signature) in the Taiwan cohort and one tissue with AA signature in the Thailand cohort. Computational pipelines are being built to compare and integrate WGS data to uncover associations between somatic mutations, structural rearrangements, and AA signatures. We also found unique mutational signatures in Japanese cholangiocarcinoma cases (Manuscript in preparation). A new pipeline for detecting structural variations from whole-genome sequencing data has been established, and this pipeline will analyze cases with different ethnic backgrounds.