

Japan-Singapore lead international research in discovering potential targeted treatments for biliary tract cancer

- The largest international genomics study of biliary tract cancer (BTC), involving 489 patients from 10 countries
- Four BTC subtypes with distinct molecular features revealed by integrated analysis of comprehensive molecular data
- Two carcinogenesis pathways of BTC discovered at molecular level

Tokyo - August 3rd, 2017 - The National Cancer Center (NCC), together with Singapore's groups, co-lead an international research in integrative genomic and epigenomic analysis of biliary tract cancer (BTC), or cholangiocarcinoma. The project, as part of the International Cancer Genome Consortium (ICGC, www.icgc.org), analyzed samples from a total of 489 patients from Japan, Singapore, Thailand, China, Taiwan, Korea, Romania, Italy, France and Brazil.

The team analyzed entire BTC molecular alterations, some of them identified for the first time, revealing four different subtypes, each with distinct prognosis features, and potential in responding to immunotherapy/targeted therapies. This put to light the benefits of personalized treatments corresponding to subtypes. Two molecular mechanisms of onset of BTC were also discovered. The research signifies a great leap forward in the studies of molecular and genomic abnormalities, contributing to the acceleration of genomic medicine in treating bile duct cancers.

This work was recently accepted by the Cancer Discovery journal in June 2017. It was supported by Japan Agency for Medical Research and Development (AMED) under its Practical Research for Innovative Cancer Control, and Project for Cancer Research and Therapeutic Evolution (P-CREATE) grants.

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About National Cancer Center, Japan

National Cancer Center (NCC) is a National Research and Development Agency leading and coordinating cancer research, treatment, prevention, control programs and education in Japan. Its primary mission lies in discovering the fundamental causes of cancer and realizing its earliest diagnosis and prevention, establishing and making available the most advanced standard of care to all patients, whilst contributing to global efforts in combatting cancer.

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