

0

29 September 2022 | News

An integrated drug and genomic test to tailor precision personalised medicine

Children with relapsed acute myeloid leukaemia (AML) who develop drug resistance generally lack treatment options and are deemed incurable. The Chinese University of Hong Kong's (CUHK) Hong Kong Hub of Paediatric Excellence (HK-HOPE) has built a high-dimensional gene-drug-clinical dataset and developed an integrated drug and genomic test to tailor precision medicine for difficult-to-treat leukaemia patients.

The sensitivity of a patient's cancer cells to a basket of targeted drugs can be obtained within three days. In combination with genomic analyses, AML patients are matched with the most effective drugs according to their individual conditions. The study's findings have been published in *Blood Cancer Discovery*, a journal of the American Association for Cancer Research.

AML is a rare but highly aggressive blood cancer that accounts for 5% of paediatric cancers. In Hong Kong, there are about 10 new cases per year. Intensive chemotherapy with stem cell transplantation has remained the standard-of-care for decades.

Professor Albert Martin Li, Director of HK-HOPE and Chairman of CU Medicine's Department of Paediatrics, said, "We successfully implemented precision medicine-guided management in childhood AML patients by making good use of valuable data. This personalised medicine approach can be extended to other leukaemia types."