

**PROJECT TITLE****Development of a Diagnostic Biomarker Assay to Guide a Precision Medicine Approach Towards Acute Myeloid Leukemia****PRINCIPAL INVESTIGATOR**

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**SCIENTIFIC SUMMARY**

Acute myeloid leukemia (AML) is an aggressive cancer of the bone marrow. Standard of care treatment uses intensive chemotherapy. However, 10 per cent of patients will not survive the effects of the chemotherapy and many will not respond to treatment or will relapse. A personalized or precision medicine strategy that identifies unresponsive AML patients and offers them a targeted drug to make them responsive to standard treatments would greatly improve their survival. The Sabloff team has identified functional biomarkers which may identify those patients who will and will not respond to standard treatments, as well as drugs that may make unresponsive patients respond better to standard treatments. In this study, they will finish developing and validating a clinical diagnostic biomarker test analyzing AML patient bone marrow samples to determine whether these biomarkers can identify AML patients who do or do not respond to standard treatments. They will also determine whether the biomarkers identify unresponsive AML patients who may benefit from the experimental targeted drug.