

CGA/18/02 – Drug-repurposing screen for new therapeutic options in chronic and acute myeloid leukaemia's

Chronic myeloid leukaemia (CML) and acute myeloid leukaemia (AML) are two types of blood cancer. Treatment resistance and disease relapse in both CML and AML are linked to the presence of leukaemic stem cells (LSCs). We and others have shown that LSCs are characterised by an unusual energy metabolism, distinct from normal haematopoietic stem cells (HSCs). Unfortunately, very few clinically viable metabolism-specific inhibitors are available today. In this pump-priming project, we propose to conduct a drug-repurposing screen to identify compounds targeting the energy metabolism of LSCs, to uncover treatments for AML and CML patients that have established clinical safety-profiles.