# AVAILABLE TECH

University of South Australia | UniSA Ventures Pty Ltd

# MYB Inhibitors

In development for treatment of Acute Myeloid Leukaemia (AML) and other Cancers

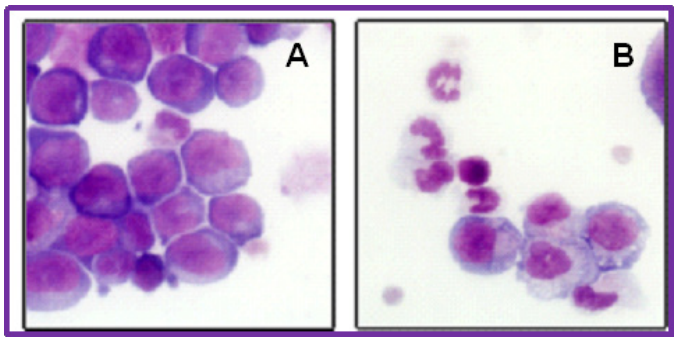
## Benefits

- Small-molecule inhibition of a crucial oncogene in AML.
- Likely to benefit other major human cancers including acute lymphblastic leukaemia (ALL), breast and colon carcinomas.
- Likely to target all AMLs, as compared to the few approved precision AML drugs that target limited subsets.
- Opportunity for safer and more effective AML drugs.

## Background

AML has a dismal outcome with standard treatments (< 30% survival after 5 years). Current treatment is with cytotoxic chemotherapy, which causes distress and frequent morbidity, and moreover often brings only temporary remission followed by fatal relapse. There is much activity in developing targeted therapies for AML, yet there are very few approved drugs to date.

MYB plays essential roles in normal blood cell formation, but is also required for the development and maintenance of AML and several other cancer types. The interaction of MYB with its cofactor p300 is crucial for AML development, but largely dispensable for normal blood cell formation. Targeting MYB is a novel approach that has the potential to be of great value for most/all cases because MYB is an essential co-factor for the disease, regardless of the driver gene in any particular case. Thus a MYB-p300 inhibitor will address a major unmet clinical need for safer and effective AML drugs, and has the potential to greatly benefit AML patients as well as patients with a range of other cancer types.




A. Leukaemia cells generated by a human AML oncogene
B. The same oncogene fails to induce leukaemia in the absence of MYB-p300 interaction

## Technology

A small molecule library screen for molecules that block the interaction of MYB with p300, has resulted in a number of reconfirmed hits with favourable chemistry that are suitable for further development and optimisation. In preliminary studies, some of these hits have shown cytotoxic activity against AML cell lines.

These leads are being validated in a range of cell-based assays to determine efficacy, specificity, and confirm mode of action in AML. Similar assays can also be used to examine potential efficacy in other relevant cancer types (e.g. breast, ALL). In addition, testing of favourable compounds will be extended to several in vivo models.

## Potential Market

Pharmaceutical companies with an interest in cancer therapies.

## IP Status

Patent application to be filed following lead optimisation.

## Partnering Opportunities

We welcome academic or industry partners willing to contribute to the further development of hit compounds.

## Contact Us:

**UniSA Ventures**
**T: +61 8 8302 5300**
**E: unisaventures@unisa.edu.au**

@UniSAVentures

linkedin.com/company/unisaventures