Dendritic Cell Research
The ANZAC Research Institute
Concord Repatriation General Hospital
Gate 3, Hospital Road| Concord, NSW |2139, Australia
dcbtg.admin@sydney.edu.au| +61 02 9767 9871

30 June 2015

RCPA Grant in Aid Report

Project: Novel antibody targets in Acute Myeloid Leukaemia

This grant was used to provide reagents to allow immunophenotyping of AML samples with a large panel of novel antibodies which were submitted to the HLDA10 workshop in Wollongong last year. AML samples from 3 patients were tested with a panel of over 80 antibodies. Binding to both the viable, $CD45^{dim}SSC^{lo}$ blasts and the $CD34^{+}CD38^{-}$ "leukaemia stem cell" (LSC) enriched fraction was assessed using multiparameter flow cytometry (Figure 1).

Seventeen of the antibodies tested bound to more than one of the AML samples. These included some antibodies to antigens which have previously been identified by other groups as potentially useful therapeutic targets e.g. Clec12A, IL-1RACP, FLT3 and TIM-3 (Figure 2). The other antibodies identified may also be potentially useful diagnostic or therapeutic tools. The work done in this workshop will help to predict their likely "on-target" toxicities by documenting their binding to healthy cell populations.

This work was presented at as a poster at the HLDA10 meeting at Wollongong and will form part of a manuscript which is currently being written. In addition the work with the HLDA 10 antibodies will form a chapter of my PhD.

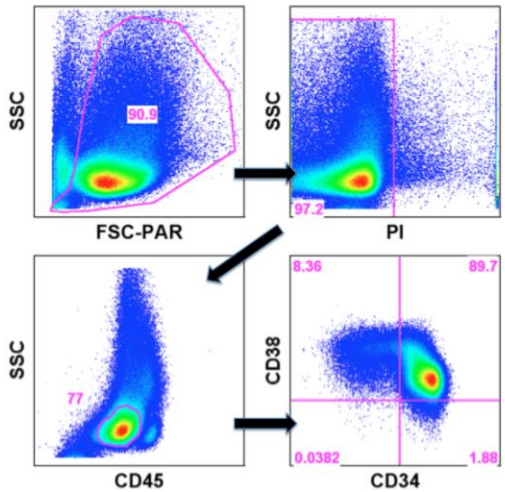

Figure 1. Gating strategy.

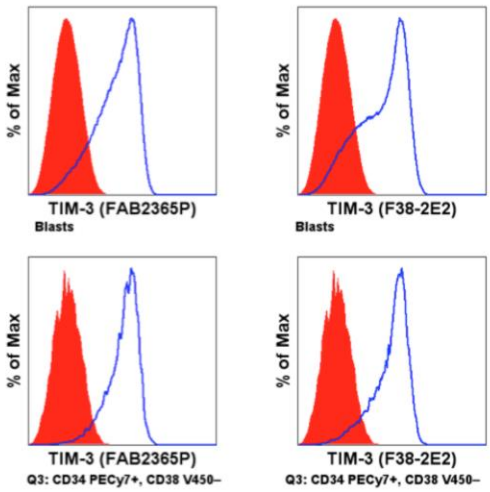

Figure 2. TIM-3 expression on AML blasts and LSC fraction compared to isotype control.

Please do not hesitate to contact me should you require any further information.

Regards,

Dr. Robin Gasiorowski