

Human lymph node responses to COVID-19 vaccination

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OUR GOAL

To investigate the immune response to the COVID-19 mRNA vaccinations in peripheral blood and human lymph nodes.

HOW DO WE DO THIS?

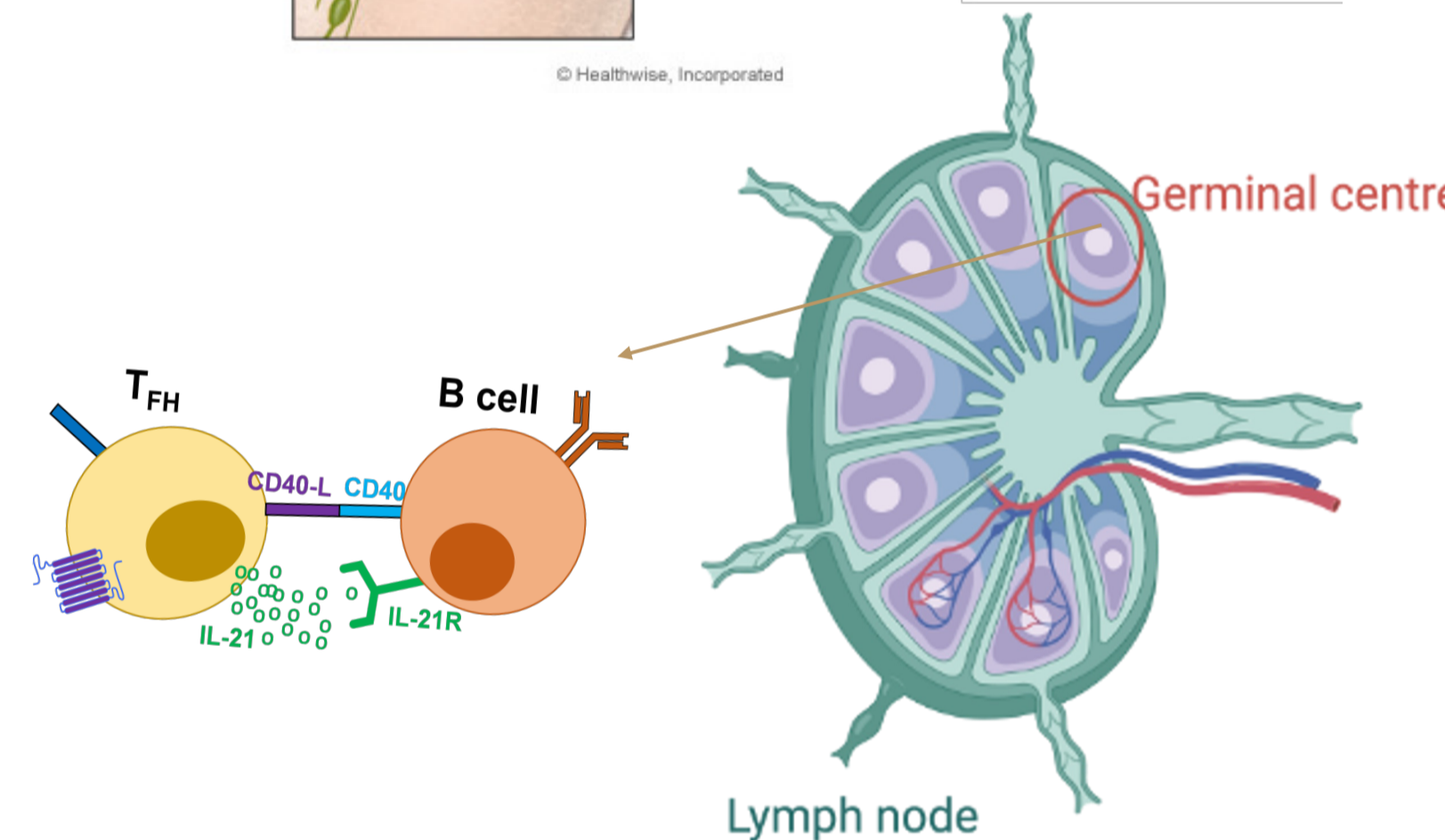
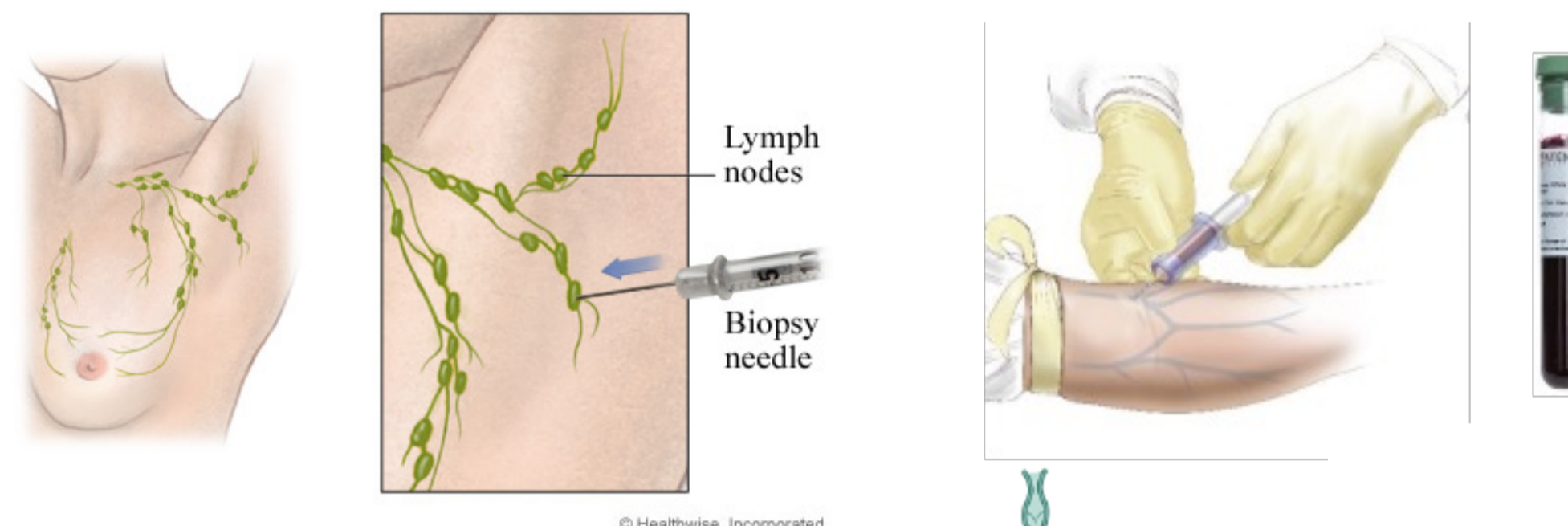
Through blood collection and sampling of the axillary lymph node via ultra-sound guided fine needle biopsy after vaccination.

OUR RESEARCH QUESTIONS

- To characterise the primary and secondary T and B cell responses in peripheral blood and lymph nodes following vaccination
- Determine the correlates that lead to the generation of effective systemic neutralising antibody responses
- Compare immune responses between healthy and immunocompromised people

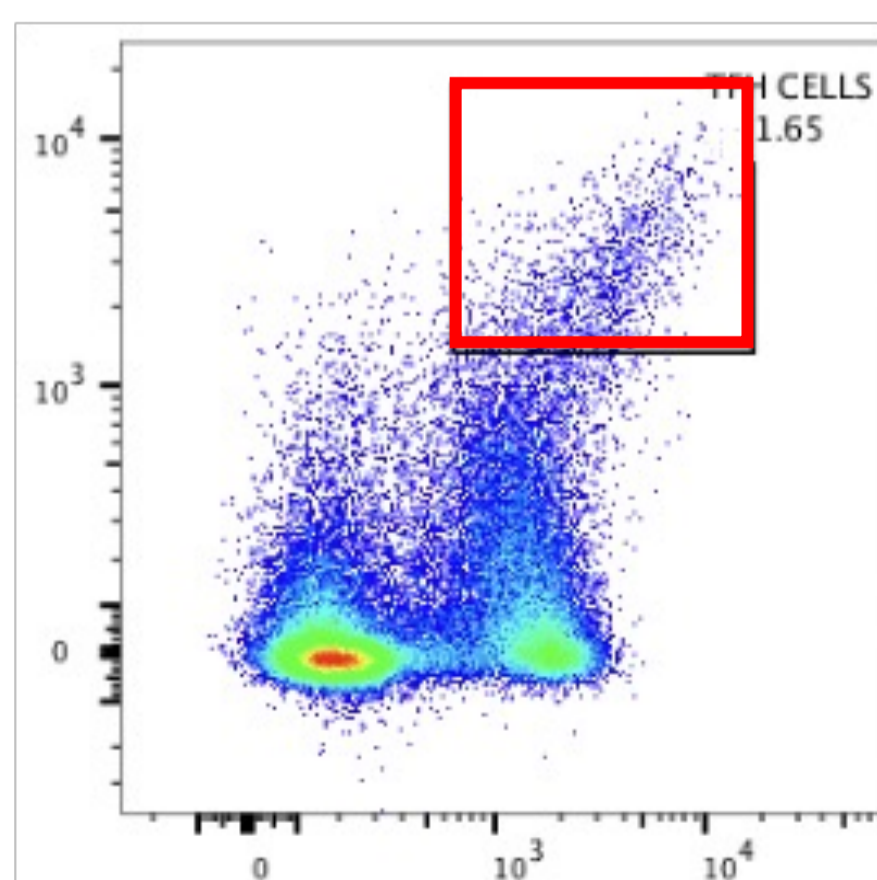
METHODOLOGY

Ultra-sound guided fine needle biopsy and peripheral blood sampling

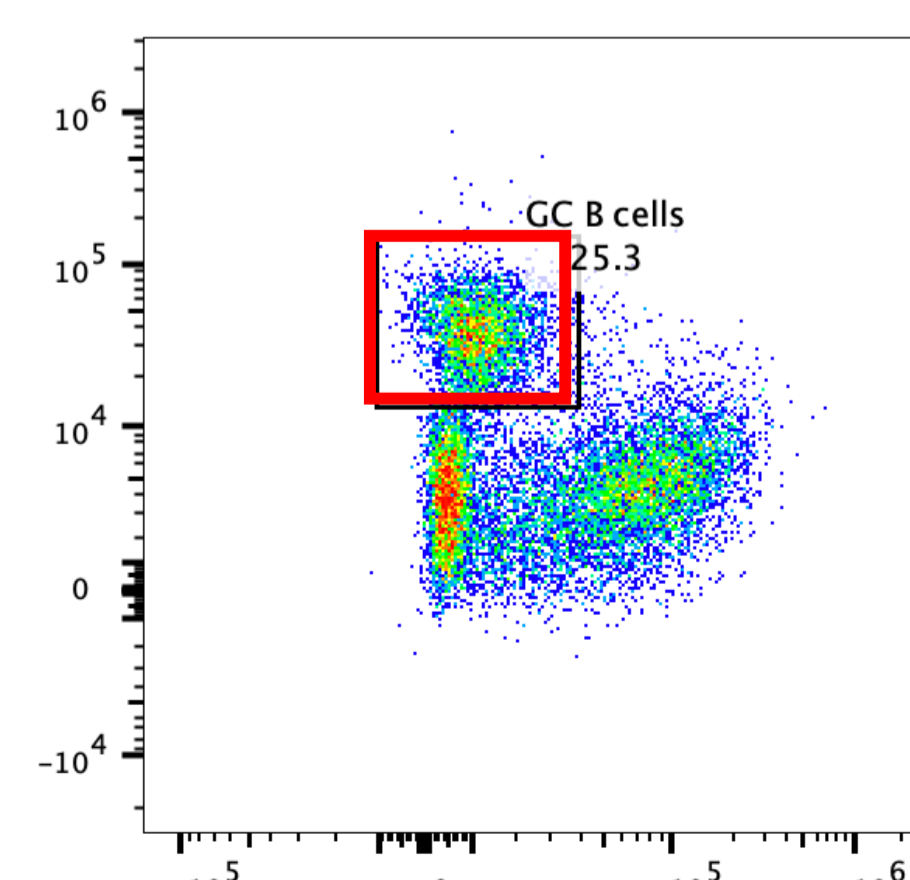


IMMUNOPHENOTYPING VIA FLOW CYTOMETRY

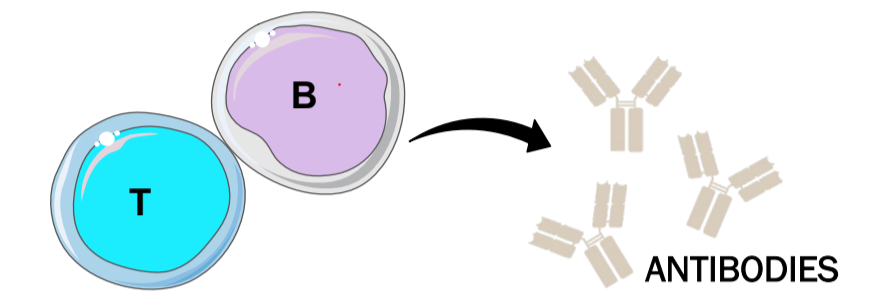
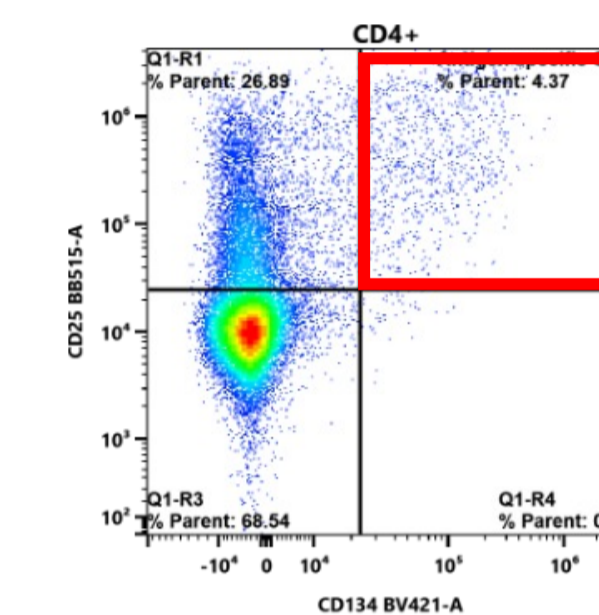
Germinal Centre Tfh cells



Germinal Centre B cells

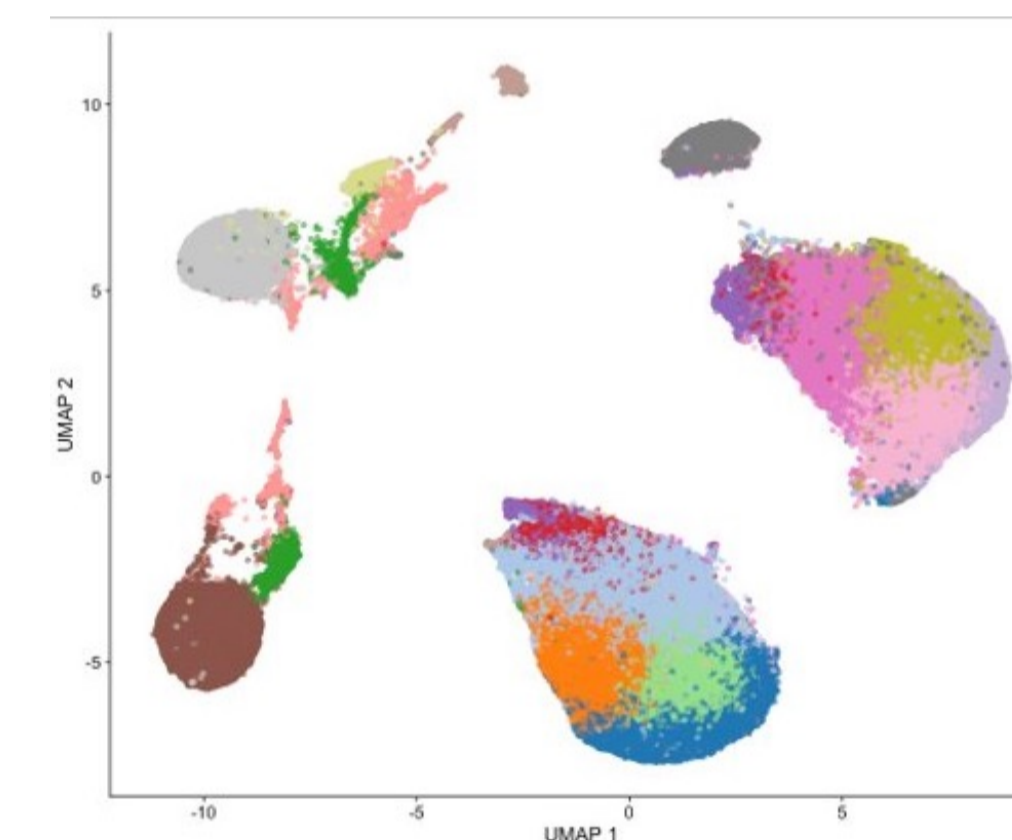


FUNCTIONAL T CELL & NEUTRALISING ANTIBODY ASSAYS



Detection of COVID-19 vaccine-specific T cells & neutralizing antibodies in blood post vaccination

SINGLE CELL TRANSCRIPTOMICS & BIOINFORMATIC ANALYSIS



Clustering of immune cells by gene expression

SOUND INTERESTING?

TO DISCUSS POSSIBLE PROJECTS

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