



Peripheral whole blood gene expression biomarkers for differentiation of TB lymphadenitis, B-cell lymphoma, and other causes of peripheral lymphadenopathy

Ms. Nonhlanhla Mabuza

Supervisor: A/Prof Estelle Verburgh

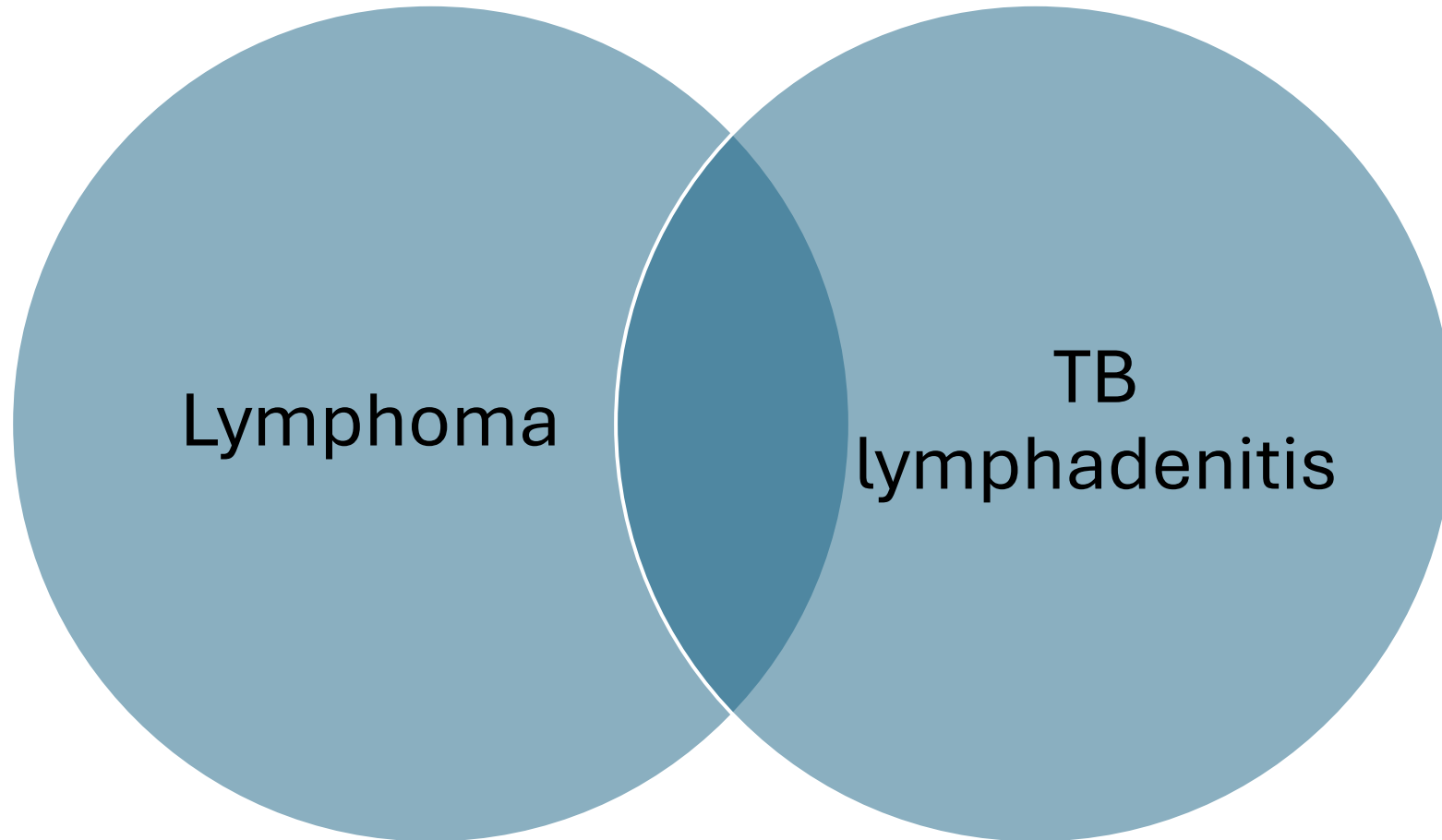
Co-supervisor: A/Prof Simon Mendelsohn



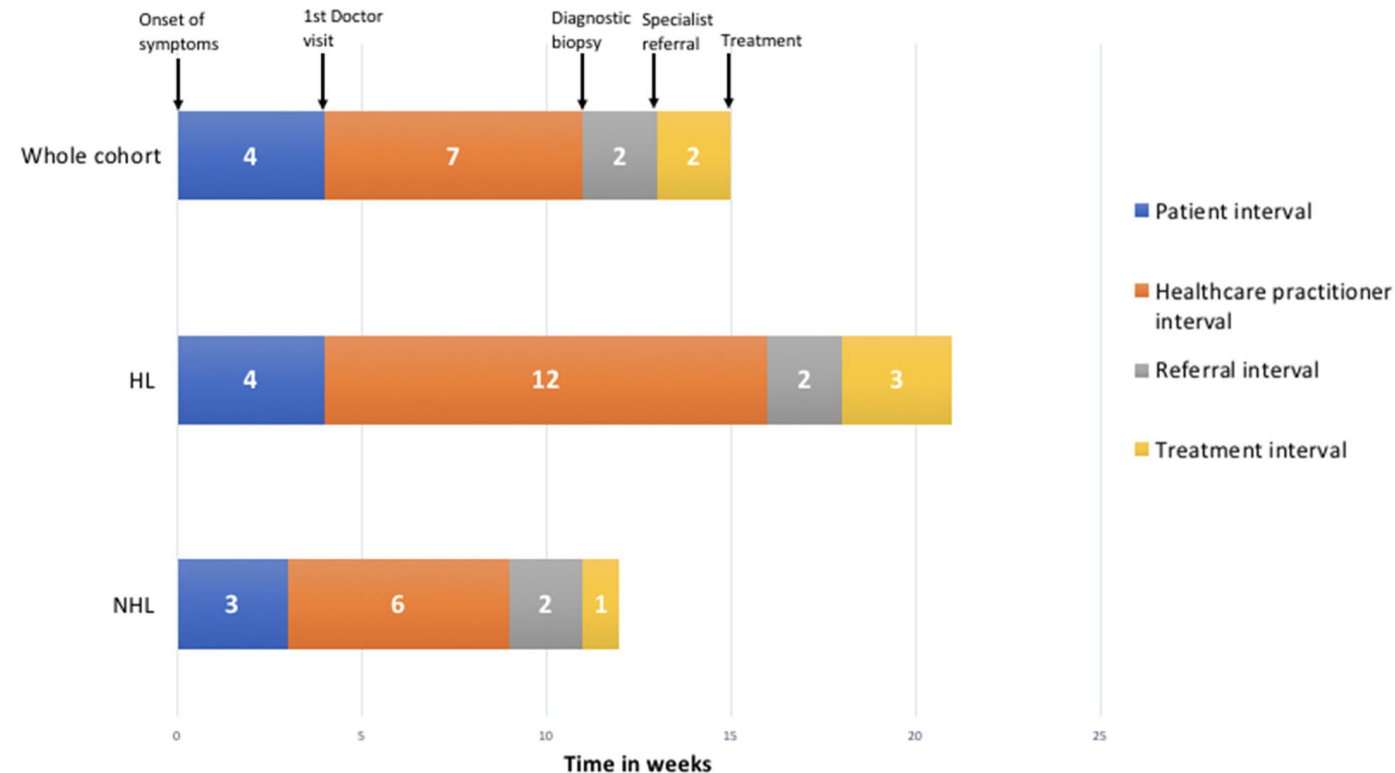
9th SA TB conference



Tuberculosis and Lymphoma share overlapping signs and symptoms



Diagnostic **delays** in patients presenting with lymphadenopathy in South Africa



The diagnostic pathway to lymph node excision biopsy in an HIV- and tuberculosis-endemic region

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Affiliations + expand

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The determinants and impact of diagnostic delay in lymphoma in a TB and HIV endemic setting

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Aims

Aim 1:

Evaluate the clinical utility of peripheral whole blood gene expression biomarkers to distinguish between tuberculous lymphadenitis and B-cell lymphoma

Aim 2 :

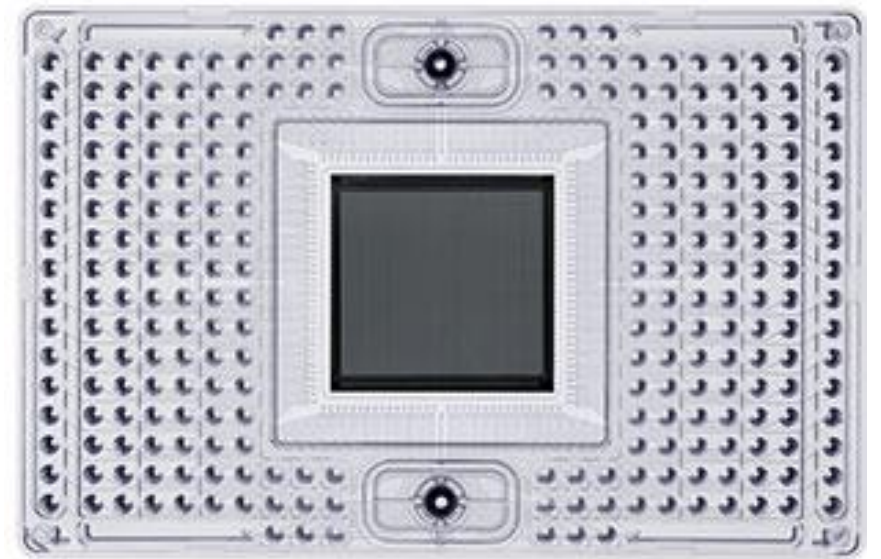
Identify genes and pathways differentially abundant across: TB lymphadenitis and Lymphoma **Vs healthy controls**

Study design and flow

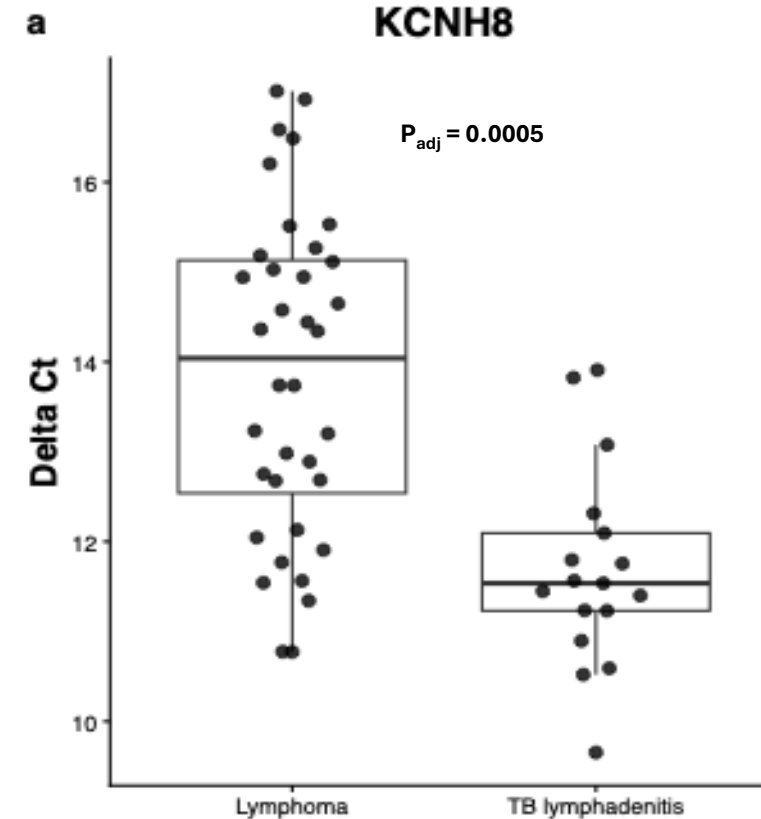
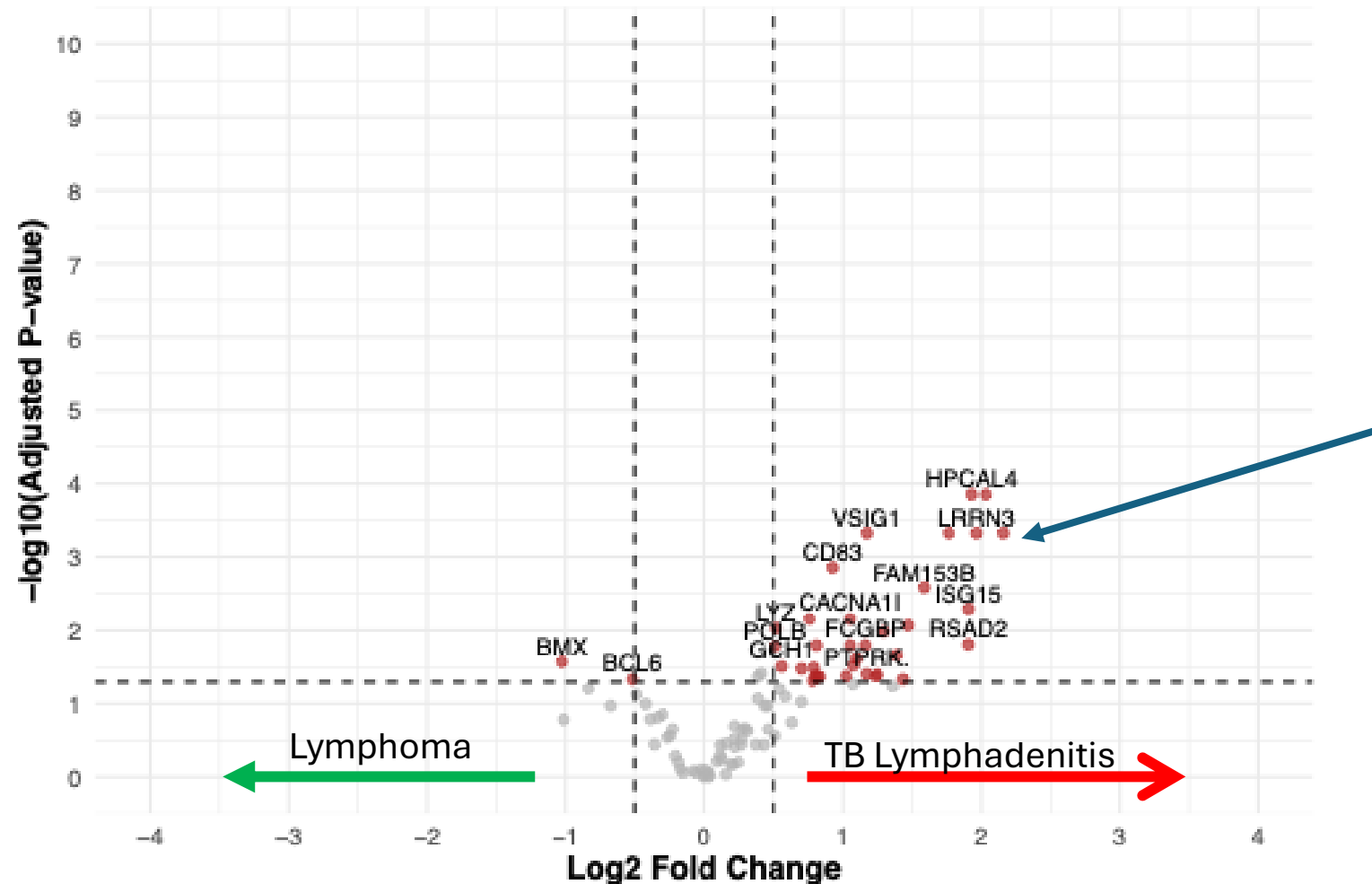
Adult patients **diagnosed with lymphoma or TB lymphadenitis** at the lymph node biopsy clinic at Groote Schuur Hospital

- **HIV+** and **HIV-**

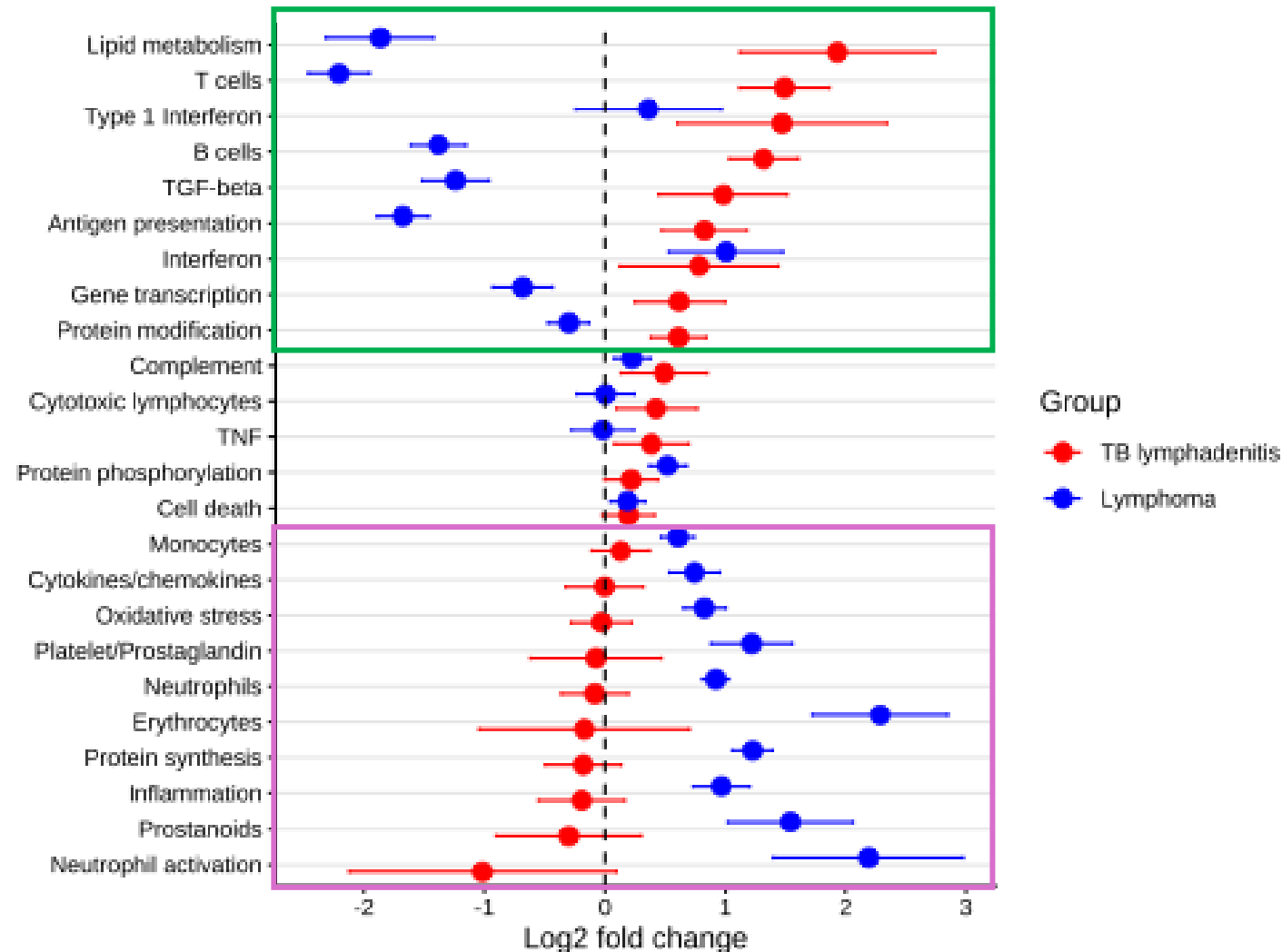
51 B-cell lymphoma
20 TB lymphadenitis
61 healthy controls



TB lymphadenitis and lymphoma **exhibit distinct** gene expression patterns



Tuberculosis and Lymphoma show difference in pathway activation



Key take-aways

1. Gene expression biomarkers have potential to differentiate TB lymphadenitis from lymphoma
2. Distinct transcriptional signatures may support differential diagnosis and improve understanding of host–pathogen and host–tumour interactions

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CANSA (Cancer Association of South Africa) .

