

Tēnā koutou e te Graduate Women New Zealand,

Firstly, I would like to sincerely thank GWNZ for the generous support provided through this PhD fellowship. This funding has enabled me to continue my research on Hereditary Diffuse Gastric Cancer (HDGC), with my thesis submission expected later this year.

Since being awarded this fellowship, I have undertaken a large-scale computational analysis. The data I have been analysing examines gene expression in individual cells from stomach cancer patients around the world. I have been comparing specific cancer cell populations with normal tissue to identify key molecular changes. I am pleased to share that this analysis has revealed several promising findings.

I am currently working to validate these results in stomach cancer samples from our HDGC mouse model, as well as in samples from HDGC patients. For this, I am using two molecular biology techniques — immunofluorescence and immunohistochemistry. These approaches will confirm that the changes identified in my computational analysis are reflected in the biological tissue; in other words, that we can physically observe these alterations within stomach tumours.

Following this validation work, I will focus on identifying drug compounds that may target these molecular changes. This research will bring me to the completion of my PhD.

I am also preparing an abstract submission to present my research at the ComBio 2026 conference in Sydney later this year. ComBio is a major biology conference that brings together researchers from around the world across multiple biochemistry and molecular biology disciplines. This will be a valuable opportunity to share my PhD findings and build important connections as I transition into the next stage of my research career.

Ngā mihi nui,

Michaela Hughes