

School of Public Health PhD Student Project

TITLE: Biodiversity and Immune Health

FIELD OF RESEARCH: Public Health

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LINK TO UQ RESEARCHERS PAGE: https://researchers.uq.edu.au/researcher/23923

PREREQUISITE SKILLS REQUIRED FOR THE PROJECT: N/A

PROJECT SYNOPSIS:

Is the biodiversity of your environment (where you live and recreate) influencing your commensal microflora and hence your risk of inflammatory disease.

This project will take an innovative approach to integrate tools from sciences and provide new information that will enhance our understanding of the beneficial relationship between greenspace and health and wellbeing. Of particular interest are chronic diseases such as asthma and mental illness that have been linked to the amount and quality of environmental exposure to greenspace and biodiversity. There has been an unexplained increase in prevalence of these diseases globally over the past decades, (around 10% of the population suffering one). It is a significant burden to the Australian public health purse (asthma \$28B p.a. /mental health services \$21B p.a). There is evidence that the positive health impacts of greenspace differ between areas and that more biodiverse exposures have greater health benefits. However, whilst the limited evidence base for this is growing, there are critical knowledge and methodological gaps that limit translation. This multidisciplinary project will take a systems approach to explore this complex paradigm and develop novel methodological approaches to enable more nuanced research (Figure 1).

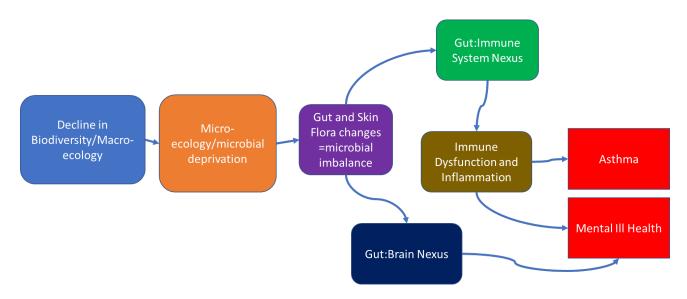


Figure 1. Biodiversity Hypothesis, adapted from von Hertzen et al 2011⁸