PhD Project: Acute effects of a New Zealand "functional foods" on postprandial energy metabolism.

Supervisors: *Associate Professor Jennifer L Miles-Chan & Dr Ivana Sequeira, Human Nutrition Unit, School of Biological Sciences, University of Auckland.*

Project Description: Impaired fasting plasma glucose and an exaggerated postprandial glucose response to consumption of a meal are both key indicators of an increased risk of type 2 diabetes – a health condition of immense worldwide concern. As well as being used as a tool to screen "at risk" individuals, functional properties of some foods and food ingredients have been shown to have beneficial effects on metabolic health. However, in most cases, knowledge is lacking in terms of the physiological mechanisms by which these effects occur. This project aims to explore the acute effects of a collection of New Zealand food and food ingredients in a systems physiology approach, with focus on glycaemia, postprandial thermogenesis, gut barrier function, and inflammation/immune function.

This project, based at the University of Auckland Human Nutrition Unit (https://www.hnu.auckland.ac.nz/), would suit someone with a biomedical or integrative physiology background. However, enthusiastic and self-motivated candidates from other backgrounds with an interest in nutrition and metabolism are also welcome to apply. Laboratory experience in any of these areas would be advantageous. Please note that applicants must have a first-class Honours degree or second-class division one (bachelor or masters level); or comparable qualifications.

Funding: Applications are encouraged from students with potential for obtaining a funded fellowship (typically a grade point average $\geq$8.0 (i.e., an "A" equivalent or above)). This fellowship, of NZD $35,000/year for up to three years plus PhD fees over this period, will be provided by the Riddet Institute (https://www.riddet.ac.nz/). Both international and domestic students are eligible.

About the University of Auckland: The University of Auckland is ranked within the top 100 of the QS World University Rankings 2023 and 6th in Times Higher Education University Impact Rankings 2022, making it New Zealand's highest ranked university. The University is located in the harbour city of Auckland, with easy access to stunning beaches and forests. Furthermore, Auckland was ranked third (for the 8th consecutive year) out of 231 cities in the 2019 Mercer Quality of Living Survey, and in the top 40 of the QS Best Student Cities 2023 – with a particularly strong score in the Student Mix category, thanks to its large and diverse student community, combined with an inclusive and tolerant culture.

How to apply: Applications should be emailed to Associate Professor Jennifer L Miles-Chan (j.miles-chan@auckland.ac.nz) and include your CV, academic transcript, names and contact details of two referees and a covering letter explaining why you are interested in the project and outlining any relevant experience.