

**Title:** Literature Review on Global Climate Change and Infectious Diseases in Australia

**Supervisor/s:** [Dr Weiwei Yu](#) and [Professor Gail Williams](#)

**Funding:** Student scholarship required

**Student Objectives:**

1. Understanding the role of climate change in the transmission of infectious diseases in Australia
2. Gaining the knowledge of a variety of literature search databases, for example, PubMed, Science Direct, and Scopus etc
3. Accumulating skills with EndNote for importing literature, organising into word documents
4. Become familiar with the process of literature reviews and drafting literature reviews.

**Project Outline:**

Global warming can be responsible for a tremendous burden of disease. Mosquito-borne diseases are most sensitive to climatic variability. Ross River virus is the most common and wide-spread mosquito-borne disease in Australia, with thousands of clinical cases reported to the Commonwealth Department of Health and Ageing each year. Dengue fever is the most rapidly spreading mosquito-borne disease in the world and is responsible for the largest burden in countries of the Asian-Pacific region. The increasing burden of dengue fever in the Asian-Pacific region is a matter of serious concern since the potential for dengue fever to be imported into Australia is high, and the increased risk of dengue fever in Australia is real. Future global warming is inevitable in coming decades. In Australia, warming of between 1 °C and 5 °C is likely by around 2070. Therefore, there is a need to develop a thorough understanding how climate change impacts the emergence and distribution of infectious diseases in Australia for future projection and policy strategies.

In this project, a Mesh term search and keyword search will be applied including infectious diseases, climate change, dengue fever and Ross River virus. The student will determine inclusion and exclusion criteria.

**Achievable Outcomes:**

1. **Master degree in Epidemiology or Public Health**
2. One scientific paper in a high quality journal
3. Present research findings at internal and/or national conferences.