Development of Modified Antisense Oligonucleotides Targeting Cancer
Auckland University of Technology (AUT), Auckland, New Zealand

Dr Emma Davison is seeking a motivated and talented PhD candidate to join her research team at Auckland University of Technology (AUT). This fully funded three-year position covers student fees and provides a tax-free stipend of **$30,000 NZD per annum**.

The Project
This project will focus on developing a new class of nucleoside analogues and investigating the properties they impart to antisense oligonucleotides (ASOs) designed to target cancer. By joining this project, the successful candidate will gain **comprehensive training across diverse and highly sought-after techniques**, including multi-step asymmetric organic synthesis, automated solid-phase oligonucleotide synthesis, biophysical and in vitro assays, as well as advanced analytical and purification methods (LCMS, 1D/2D NMR, HPLC, and chromatography). This PhD offers an excellent opportunity to build a strong and versatile skill set at the interface of organic chemistry, medicinal chemistry, and biomedical sciences, preparing the candidate for a wide range of future careers in academia, biotechnology, or the pharmaceutical industry.

Candidate Requirements
The ideal candidate will:

- Hold (or be close to completing) a first-class Honours or Master's degree in Organic Chemistry, Medicinal Chemistry, or a closely related field.
- Have a strong foundation in both theoretical and practical aspects of organic chemistry, and possess excellent laboratory skills, attention to detail, and the ability to work independently as well as collaboratively in a team environment.
- Be able to start their PhD by February 1, 2026 (later start dates may be considered).
- Candidates from traditionally underrepresented groups are especially encouraged to apply.
- Additional knowledge or experience in Oligonucleotide synthesis and/or Biomedical sciences will be viewed favourably.

The candidate must meet AUT's PhD entry requirements which can be found here:
https://www.aut.ac.nz/courses/doctor-of-philosophy?gad_source=1&gad_campaignid=146112257&gclid=CjwKCAjw_fnFBhB0EiwAH_MfZg3u0VGQHTryTROlfCX-fZ9NN_ol_Bg_1enItCJ00BnM8S6jYaK1aRoCCuUQAvD_BwE

About AUT
AUT is one of New Zealand's most dynamic and innovative universities, known for its strong commitment to real-world impact. You will join a supportive and collaborative research environment with access to modern laboratories and resources.
AUT is located in Auckland City, New Zealand's largest and most diverse city. Auckland offers an outstanding quality of life; Surrounded by beaches, native forests, and volcanic landscapes, Auckland provides the perfect balance of a vibrant urban lifestyle and outdoor adventure.

Application Process
Applications should be sent to Dr Emma Davison by November 1, 2025, though later applications may be accepted if the right candidate has not been identified by then. Applications must include:

- A one-page cover letter outlining your motivation, research background, suitability for the role, and eligibility for AUT's PhD programme.
- A detailed CV, including academic transcripts and the name of at least one academic referee.

For further information or informal enquiries, please contact Dr Emma Davison at
emma.davison@aut.ac.nz