

Work Based Learning (WBL) Placement Description

Host Details

Host Organisation	Olivia Newton-John Cancer Research Institute
Placement Title	Research technician/assistant
Placement Location	Onsite
Address (if onsite)	Level 5, ONJ Cancer Research and Wellness Centre , 145 Studley Rd, Heidelberg, 3084
Primary Supervisor Name	Dr Lisa Mielke
Position Title	Laboratory Head
Host Organisation Website	https://www.onjcri.org.au/

Host Organisation Background:

Our priority is to outsmart cancer.

Our vision is to help people live better with cancer and defeat it.

Our mission is to discover and develop breakthrough cancer therapies to provide the best health outcomes for patients.

We do this by discovering and developing new cancer therapies to provide real and life changing benefits for people impacted by cancer.

With researchers based just metres from where people are receiving treatment, our scientific discoveries are rapidly translated into breakthrough clinical therapies.

Our three core [research programs](#) focus on developing treatments for a range of cancers including breast, bowel and gastrointestinal tract, lung, skin, liver and brain cancer.

Emerging knowledge from the laboratory is quickly translated into patient trials, with our investigators overseeing active clinical trials right across Australia.

Observations from the clinic are then investigated by our research team, creating a continual cycle of learning and improvement between scientific research and patient care.

Placement Details

Placement Semester/Term	Semester 2024
Start Date	August 2024
End Date	November 2024
Days/hours per week	6 -10 hours per week
Hours (total)	100 hours
Placement Type	Unpaid

The host and successful student will have an opportunity to negotiate placement start and end dates, as well as days of the week that align to the Term or Semester dates that the student is enrolled in prior to commencing the placement.

Desired Course Discipline/Background

Preferred degree/areas of study: *Currently in the last year of their Bachelor Degree in biomedical sciences/biochemistry/cancer associated studies*

Key Duties and Responsibilities

The Mucosal Immunity and Cancer Laboratory focuses on identifying new immune targets that can be explored to develop novel therapeutics to treat stomach and colon cancers. We use mouse models and patient samples to understand the organ-specific functions of immune cells. We study heterogeneous populations of T cells, known as intraepithelial lymphocytes that are distinct in their frequency and function across different regions of the gastrointestinal tract. Our studies have identified one population, known as gamma delta T cells, that play a protective role in colon cancer. In this project we will use flow cytometry and multiplexed fluorescent immunohistochemistry technologies to understand the function of gamma delta T cells in mouse models of cancer and patient samples.

Key duties include:

Observe and participate in experiments involving mouse models of cancer development and patient samples.

-Observing implantation of tumour cells into mice.

-Monitoring tumour growth in mice.

-Perform mouse dissection

-Process mouse organs for staining with fluorescent antibodies and running these samples on the flow cytometer.

-Operating Flow jo analysis software for analysis of flow cytometry data.

-Graphing results using graph pad prism software and statistical analysis.

-Observing sectioning of fixed human tissues for immunohistochemistry staining.

-Perform immunohistochemistry staining of human colon and liver for immune cells using opal protocols.

-Observing imaging of stained human sections of VECTRA microscope.

-Use inform and halo analysis software packages for analysis of imaging data.

-Use graph pad prism and affinity design software to graph imaging results and generate figures of immunohistochemistry staining.

Selection Criteria

Essential:

- *Demonstrated ability to work as a team and independently*
- *Good written and verbal communication skills*
- *Ability to use Microsoft computer software programs including Word, Excel, PowerPoint*
- *Minimum lab experience as gained in undergraduate studies*

Desired:

- *Knowledge of the work of ONJCRI (see website)*
- *Willingness to be involved in work involving mice*

Pre-Placement Compliance Checks & Requirements

- Police Check
- Working With Children Check (WWCC)
- Other (Please Specify)
- None

Work Based Learning (WBL) – Subject Information and Requirements

Subject Code	LTU3IND
Subject Information	
Subject Prerequisites	<ul style="list-style-type: none">• Completed 120 credit points of your degree• Have 1 elective space in your course plan

How to Apply

Application Deadline: 22 May 2024

Application Instructions:

Please provide:

- CV/Resume
- Cover letter. Please address why you are interested in this placement opportunity.
- Apply through the following link: [Industry Placement Application Form, Careers and Opportunities, La Trobe University](#)

A live interview (online or in person) will be required prior to offering a placement. The supervisor may require a subsequent face to face meeting before offering placement.

For help with your cover letter and resume - [Resumes and job applications, Careers and Opportunities, LTU](#)

Thank you for considering a Work Based Learning Placement!