

## 2022 Global Change Youth Research Project Description

Please use this template to create a description of each research project, eligibility requirements and expected deliverables. Project details can then be uploaded to each faculty, school, institute, and centre webpage prior to the launch of the program.

<b>Project title:</b>	<b>Open Trismus: Open-Sourcing a Medical Device for 3D Printing</b>
<b>Project duration, hours of engagement &amp; delivery mode</b>	<p>4 weeks during Winter Vacation (20-36 hours per week) and 1 day a week during semester 2, 2022.</p> <p>COVID-19 considerations: The majority of this project could be completed off-site and virtual meetings can be arranged with the supervisory team as required. Please note: this project is located at the Herston Health Precinct (Royal Brisbane and Women's Hospital) where COVID-19 restrictions are different to those of the general community.</p>
<b>Description:</b>	<p>The project team of designers, engineers and clinicians have developed a novel device for treating trismus that can be 3D printed on a low-cost desktop 3D printer. This device serves as an alternative to current market options which are unaffordable for some patients. To improve accessibility for all, the team plans to share the files and information for 3D printing this device online for anyone around the world to download and 3D print.</p> <p>The student would be required to evaluate the current medical device/legal framework, particularly in relation to providing freely available files and information for 3D printing, and contribute to setting up the documentation for the online system.</p> <p>This research project will be co-supervised through a collaboration between the University of Queensland Law School and the Herston Biofabrication Institute.</p>
<b>Expected outcomes and deliverables:</b>	<p>This is a real industry project that will improve the lives of patients. It is expected that the student will gain confidence in leadership as they play a vital role in informing the future directions of our open-source medical device strategy. It is also expected that they will gain real-world insight into medical device regulations in Australia and globally, as well as the unique challenges associated with open-source file sharing and manufacturing. Finally, students will have the opportunity to develop their legal research skills in a practical and useful context.</p> <p>The student will be providing research outputs, not legal advice. They are expected to:</p> <ol style="list-style-type: none"> <li>1. Assess current medical device regulations and provide a report for the team to review, which may be submitted to the Metro North Hospital and Health System legal team for their feedback.</li> <li>2. Contribute to documentation of the device appropriate for sharing online.</li> </ol>
<b>Suitable for:</b>	Law students in the 3 <sup>rd</sup> -4 <sup>th</sup> year of their degree.
<b>Primary Supervisor:</b>	Hamish MacDonald

<b>Further info:</b>	Please contact the primary supervisor prior to applying to organise a meeting with the project team: <a href="mailto:h.macdonald1@uq.edu.au">h.macdonald1@uq.edu.au</a> .