



## VRES/Honours/PhD Project Opportunity

### Biofabrication & Tissue Morphology Group

27 August 2020

**Project Supervisors:** Professor Mia Woodruff (Principal), Dr Sean Powell (Associate), Naomi Paxton (Associate)

**Project Title:** Specialised Medical 3D Printing Development

**Required skillset:** Mechanical, mechatronics and/or medical engineering, 3D printing

**Research Team:** Biofabrication is 3D printing applied to medicine. In the Biofabrication & Tissue Morphology (BTM) Group, our research involves developing 3D printing technology to enable the fabrication of personalised 3D constructs to repair lost or damaged tissue. We design and build specialised 3D printers and electrospinning machines capable of fabricating customised 3D porous structures out of advance biomaterials for applications in healthcare, medicine and surgery.

**Project Scope:** We are seeking high-achieving mechanical, mechatronics or medical engineering students and/or graduates interested in developing specialized 3D printers for medical, healthcare and tissue engineering applications. Specifically, we are developing a suite of custom 3D printing technologies for FDM printing, melt electrospinning, melt electrowriting and bioprinting. Ideal candidates would have a strong interest and experience in designing and building 3D printing equipment. They will interface with our team of engineering, materials scientists, biologists, physicists and clinicians to develop and implement custom 3D printing components, such as high-temperature print heads, heated collector plates, specialized extruders and complex anatomical 3D printing design tools.

#### Contact Details:

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