Kickstart you career with CSIRO's Industry PhD

Earn your PhD in partnership with industry, a leading university, and Australia's national science agency, CSIRO.

The CSIRO Industry PhD Program (iPhD) is a research training program, focusing on applied research that benefits industry by solving real-world challenges. It aims to produce the next generation of innovation leaders with the skills to work at the interface of research and industry in Australia.

The opportunity

- Admission to a university PhD program
- A four-year scholarship valued at $46,000 per annum (2024 rate)
- A project expense and development package of up to $13,000 per annum
- Supervision by CSIRO, an industry partner and the host university
- A 60-day Industry Engagement component with the industry partner
- A structured professional development and training package

Successful students will receive a PhD on completion.

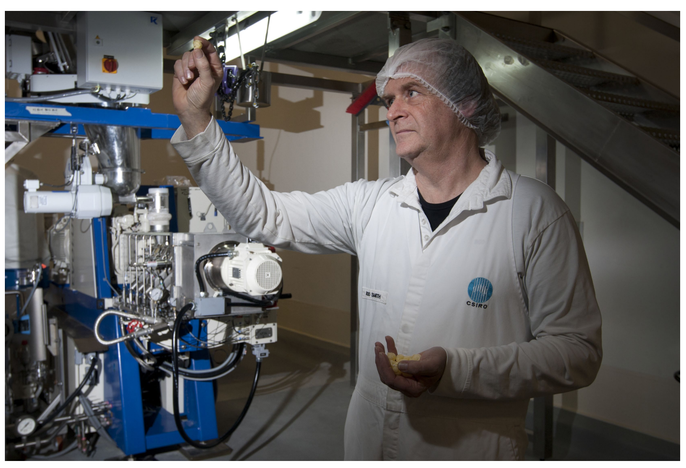
Eligibility requirements

The student must:

- Be an Australian citizen or Permanent Resident, or a New Zealand citizen.
- Meet participating university PhD admission requirements.
- Meet university English language requirements.
- Not have previously completed a PhD.
- Be able to commence the Program in the year of the offer.
- Enrol as a full-time PhD student.
- Be prepared to be located at the project location(s) that the host university has approved and, if required, comply with the host university's external enrolment procedures.

Application process

- Applicants submit an expression of interest (EOI) by emailing the university supervisor, or by following the instructions on the university's webpage, when available. Applications are open until position is filled.
- The EOI is assessed by the supervisory team and shortlisted applicants are interviewed.
- The supervisory team nominates a preferred applicant.
- The application is assessed by the university against PhD admission criteria.
- The university will issue a letter of offer for the program if all conditions have been satisfied.



FOR FURTHER INFORMATION

- Visit the iPhD website
- Contact the project's supervisory team
- Contact the Graduate Research School
- Contact the iPhD team

Project overview

3-D food printing of texture modified foods

Texture modification of food is essential for the safety of people living with dysphagia. However, people eating texture modified food often report low levels of meal satisfaction due to lack of variety in texture and poor presentation. 3D food printing offers opportunities for improved meal experience as food can be printed to appear real and/or appetising while reducing the amount of handling required when compared to food moulds. EzyChef is the leader in production and distribution of texture modified fruits and vegetables and is driven by the following value: 'making a positive difference in people's lives through texture modified food solutions'. Providing 3D food printing solutions for texture-modified foods therefore aligns with this value due to the positive impact this innovation may have on people's meal experience.

The main aim of the project is to develop a reliable and repeatable protocol for 3D printing of texture modified foods (IDDSI Level 4) to produce visually appetising food which is stable (referring to printing stability) and can be implemented in residential care settings, tertiary hospitals, or at home. The outcomes of the project will directly inform the commercialisation of 3D food printing.

SUPERVISORY TEAM DETAILS	
La Trobe University	Annie-Claude Lassemillante a.lassemillante@latrobe.edu.au
CSIRO	Amy Logan Amy.Logan@csiro.au
Ezy Chef Technologies Pty Ltd	www.ezychef.com.au

Ideal student skillset

Essential:

- A qualification in science or engineering (eligible for PhD) with a relevant focus or subjects, such as health, food, and soft material science
- Strong IT and computer skills

Desirable:

- 3D printing experience
- Experience with CAD and/or STL files
- Physical and analytical chemistry knowledge
- Experience in material characterisation

PROJECT LOCATIONS	
Primary location	La Trobe University, VIC
Industry Engagement component location	Ezy Chef Technologies, VIC
Other potential locations	CSIRO Werribee, VIC