



***Therapeutic Technologies Research Initiative (TTRI)***  
*in collaboration with*  
***International Research and Research Training Fund (IRRTF)***  
***Mechanobiology Research Consortium***

invites applications from outstanding Undergraduate and Postgraduate students from top-ranking Universities in Japan to work on research projects aligned with one of the three focused areas of the TTRI at the University of Melbourne, Australia.

The Initiative is focused on new applications of mechanopharmacology and organ-on-a-chip technology to transform drug-screening processes. Mechanopharmacology is a discipline at the interface of biology and engineering examining the effects of physical forces on the response of cells, tissues and organs to drugs. Cellular mechanics strongly influences development, physiology and disease. New screening processes are needed to examine therapeutic candidates that target mechanosensing and/or cellular mechanical performance. The TTRI will bring together the expertise needed to achieve drug screening in microfluidic environments that are mechanically appropriate, with a focus on use of human cell culture.

The Initiative has selected three Research Themes as initial areas of focus:

- Cell/Tissue/Organ-on-a-chip drug screening technology;
- Cellular biomechanics;
- Stem cells and disease modelling.

The main objective of this funding is to foster collaboration between Japan and Australia Universities, to support research excellence, and to educate future scientists.

**Essential Requirements:**

- Penultimate year, final year undergraduate students or postgraduate students (Masters or PhD) in the area of pharmacology, therapeutics, tissue engineering, chemistry or mechanical engineering, in one of the top-ranking Universities in Japan.
- GPA score in the top 10% of the class.
- Outstanding level of motivation.
- Superior analytical skills.
- A passion for working in a multidisciplinary environment.

## Pay & Conditions

- Successful applicants will be given financial assistance to cover the cost of return flights from Japan to Melbourne, Australia, and/or accommodation.
- It is responsibility of the student to arrange all appropriate travel and visa documents.
- The start date and duration of the project are to be arranged between the student and their supervisor. Usual duration of the projects is between 2 and 3 months.
- Successful applicants will be notified by 31 July 2016.

## Student's Responsibility

- Work in a manner that complies with codes of good scientific practice.
- Sign the Intellectual Property and Confidentiality agreements of the University of Melbourne (if applicable).
- Work in a cooperative manner with other members of the research team, sharing results and meeting regularly with their supervisor.
- Keep to the hours of work agreed to between the student and supervisor.

Please download application form from the Funding Opportunities tab of the TTRI website:

[research.unimelb.edu.au/hallmark-initiatives/therapeutic-technologies-research-initiative](http://research.unimelb.edu.au/hallmark-initiatives/therapeutic-technologies-research-initiative)

Applications and supporting documents should be submitted via email to [therapeutic-technologies@unimelb.edu.au](mailto:therapeutic-technologies@unimelb.edu.au) by close of business (5 pm) Monday 11 July 2016, using this format:

- Email subject: TTRI IRRTF Project 2016 Initial LastName. (example: TTRI IRRTF Project 2016 JSmith).
- Application in a single file (PDF format) with the file name: TTRI IRRTF Project Application 2016 Initial LastName. (example: TTRI IRRTF Project Application 2016 JSmith).
- All supporting documentation in PDF format with the file name: TTRI IRRTF Project CV Initial LastName. (example: TTRI IRRTF CV JSmith for CV document).

If you require any further information please contact [therapeutic-technologies@unimelb.edu.au](mailto:therapeutic-technologies@unimelb.edu.au) with the subject line: "TTRI IRRTF project query".

## Hallmark Initiatives

