



THE UNIVERSITY OF  
MELBOURNE

The Aikenhead Centre  
for Medical Discovery  
Melbourne School  
of Engineering  
Faculty of Medicine,  
Dentistry and Health  
Sciences



THE SHANAHAN  
CHAIR IN FRONTIER  
MEDICAL SOLUTIONS

# JOINT MESSAGE FROM MARK CASSIDY DEAN MELBOURNE SCHOOL OF ENGINEERING AND SHITIJ KAPUR DEAN MEDICINE DENTISTRY AND HEALTH SCIENCES



The University of Melbourne is anchored by a strong history of biomedical innovation – and in the context of the COVID-19 pandemic, it is more important than ever that the University is a leading force in advancing Australia as an ambitious, forward-thinking country.

By 2030, Melbourne will be Australia's largest city – and the University of Melbourne will be connected through research precincts that bring together people of diverse perspectives and expertise to interrogate and translate knowledge, through research and education.

The jewel in the University's crown is the Melbourne Biomedical Precinct, made up of over 40 hospitals, research, teaching and biotechnology organisations adjacent to Melbourne's CBD. The precinct will be a key driver of healthcare advances, economic growth and jobs for Victoria.



Our best research, teaching and learning is done in collaboration, immersed in a supportive environment and a culture where new ideas and diverse perspectives thrive. Bringing together leading universities, research institutes, leading Victorian hospitals and major industry partners, the Aikenhead Centre for Medical Discoveries (ACMD) is the exemplar of the idea of collaboration for innovation and will lead to some of our generation's most exciting medical breakthroughs.

Through the generosity of Brenda Shanahan and the Shanahan Foundation, we are excited to introduce this new Chair in Frontier Medical Solutions. The intersection of engineering and medicine is a critical space to expand the horizons of scientific and commercial research. The Chair will work with the expertise of our partners in ACMD to discover the technology that will improve health outcomes for all of us.

There has never been a more exciting time to join the University. Help us achieve our bold vision.

**“Our best research, teaching and learning is done in collaboration, immersed in a supportive environment and a culture where new ideas and diverse perspectives thrive.”**

# AIKENHEAD CENTRE FOR MEDICAL DISCOVERIES (ACMD)

## Accelerating collaboration in biomedical research to solve today's health challenges.

ACMD is a bold initiative to create the first hospital-based, world-class healthtech innovation Centre in Australia.

At ACMD we are accelerating the development of previously unimaginable discoveries through biomedical engineering in devices, bionics, implantables and regenerative medicine.

ACMD is a collaborative research partnership of leading universities, research institutes, tertiary hospital and major industry partners. Clinicians embedded within our multi-disciplinary teams, inform our work on today's toughest healthcare challenges including chronic diseases.

ACMD partners are University of Melbourne, Australian Catholic University, RMIT University, Swinburne University of Technology, University of Wollongong, St Vincent's Institute, Bionics Institute, O'Brien Institute, Centre for Eye Research Australia and industry partner, Stryker.

ACMD will be housed in a high-profile purpose-designed Centre on the campus of St. Vincent's Hospital Melbourne. This Centre will become a world leading, fully integrated medical, engineering, scientific and commercial research hub that accelerates tangible outcomes for today's health challenges for everyone.

The new ACMD facility is expected to be completed by mid-2024. When it will house a diverse team of 500 experts, including clinicians, scientists, engineers and mathematicians.

**WORLD FIRST.  
PEOPLE FIRST.**

**"The most difficult health and medical problems crumble when you bring together the greatest minds and set them a challenge."**

**Dr Erol Harvey, CEO ACMD**





# MELBOURNE SCHOOL OF ENGINEERING

Melbourne School of Engineering works with industry, government and entrepreneurs to solve real-world challenges. Our graduates and researchers lead the way in engineering and information technology to build a more sustainable future.

For over 150 years, our School has been a leading provider of engineering and IT education and research in Australia.

We are built around three key pillars: world-class research, exceptional teaching and learning and a focus on wider engagement both with industry and the community.

Our global reputation ensures we attract top academics and students who share our commitment to knowledge for the benefit of society.

## Chemical and Biomedical Engineering:

The School of Chemical and Biomedical Engineering integrates the expertise and capabilities of both Chemical and Biomedical Engineering. The resulting mix of skills creates new horizons for engineering and enables the realisation of transformative new ideas into practical innovations.

Our research in biomedical engineering covers a breadth of areas in biomaterials and tissue engineering; biomechanics and mechanobiology; bionics, biomedical imaging and neuroengineering; systems and synthetic biology. We have strong national and international linkages with industry, hospitals, research institutes, and universities.

By partnering with the Melbourne School of Medicine, this exciting new role will be embedded in the new Aikenhead Centre for Medical Discoveries (ACMD). We enthusiastically join forces to drive new medical discoveries.



# FACULTY OF MEDICINE DENTISTRY AND HEALTH SCIENCE

For over 150 years we have been contributing to the health and wellbeing of our society. We train the very best clinicians, we work on internationally competitive research issues, and we graduate the very best students in all areas of health, medicine and biomedical research.

The Faculty of Medicine, Dentistry and Health Sciences (MDHS) is Australia's pre-eminent medical, health sciences and biomedical faculty and is recognised for its research, teaching, training and policy leadership across all of these fields.

Our Faculty is renowned for global leadership in health research, policy and practice. We recognise partnerships and collaborations are an integral facet of our development and a major strength of the Faculty is our ability to work collaboratively with our partners to benefit the community.

## Melbourne Medical School (MMS):

We are the oldest medical school in Australia and internationally renowned for global leadership in teaching and training, health research, policy and practice. The School encompasses all major fields of medicine and rural health:

- » Baker Dept of Cardiometabolic Health
- » Clinical Pathology
- » Medicine and Radiology
- » Psychiatry
- » Obstetrics & Gynaecology
- » Paediatrics
- » Surgery
- » Rural Health
- » General Practice

We are excited to be collaborating with both Melbourne School of Engineering and Aikenhead Centre for Medical Discovery to appoint this newly created endowed chair – the Shanahan Chair of Frontier Medical Solutions to drive ground-breaking medical discoveries and innovation for our society.



# GRAEME CLARK INSTITUTE FOR BIOMEDICAL ENGINEERING (GCI)

Established in 2017 and named in honor of the Australian pioneering creator of the Multi-channel Cochlear Implant - Professor Graeme Clark, our goal is to shape the future of healthcare with biomedical engineering solutions that deliver health, societal and economic benefits to Australia and the world.

We promote and coordinate the extensive bioengineering activities that exist across The University of Melbourne, drawing on emerging scientific and engineering approaches to drive transformative clinical solutions.

We are located in the Melbourne Biomedical Precinct which has established itself as a major global research and teaching powerhouse, with over 25 collaborators from health services, research and academic partners, and shortly where the ACMD will also open.

We look forward to the ACMD joining us within this precinct, and to many new and groundbreaking collaborations with both the incumbent to this prestigious appointment – The Shanahan Chair for Frontier Medical Solutions - as well as the wider ACMD community.

Co-location in the center of the Melbourne Biomedical Precinct offers unparalleled access to the clinical and research opportunities available across the entire network of partners.

The strength of these partners, the relationships and existing collaborations, together with the proximity of the facilities provides unique opportunities to develop transformative health technologies.

We are excited to be collaborating with both Melbourne School of Engineering and Aikenhead Centre for Medical Discovery to appoint this newly created endowed chair – the Shanahan Chair of Frontier Medical Solutions to drive ground-breaking medical discoveries and innovation for our society.

**“By creating a community of engineers, scientists and clinicians in the healthcare system, relevant clinical problems will be identified and strategies for new approaches will be enabled and developed in partnership with industry.”**

**Professor Mark Cook**  
**Director, Graeme Clark Institute**





# THE MELBOURNE BIOMEDICAL PRECINCT

The Melbourne Biomedical Precinct has a history spanning more than 160 years. It is home to many firsts – Melbourne’s first general hospital, as well as the state’s first specialist hospitals in children’s health, women’s health and eye, ear, nose and throat care.

It also the site of Melbourne’s first and Australia’s leading university, the University of Melbourne; Australia’s largest pharmaceutical company, CSL; and Australia’s oldest medical research institute, the Walter and Eliza Hall Institute.

The Precinct has made major discoveries across microbiology, immunology and neurology. The bionic ear was discovered and developed in the Precinct, as was rotavirus and the world’s first pediatric vaccine for gastroenteritis.

Collectively the Precinct Partners have been delivering first class medical care, research and education in Victoria for more than 160 years. They are the names you know – big hospitals, universities and research institutes that have fundamentally improved patient outcomes here and internationally. There are now in excess of 30 Precinct Partners

The reach of the Precinct goes beyond its geographical boundaries with collaborations with other universities, hospitals and research organisations throughout Victoria, Australia and the world.

**A renowned world top 10 biomedical precinct and a driver of healthcare advances, economic growth and jobs for Victoria.**



# POSITION DESCRIPTION AND SELECTION CRITERIA

The Shanahan Chair in Frontier Medical Solutions will be a true leader in medical technologies delivering an innovative research program with positive impact on medical care.

The Chair's research program will work at the intersection of engineering, medicine and science to lead innovative research and create translational solutions for medical needs.

As an international leader in the field, the Chair will engage broadly within the university and across the research community and industry to build and sustain the agile relationships that are critical to outcomes. Specifically, they will take a lead role in shaping the framework of and anchoring the university's critical partnership with the Aikenhead Centre for Medical Discovery (ACMD).

As a passionate teacher, the Chair will share their expertise and train others in the design and translation of medical technologies. New teaching programs will be developed through their leadership and opportunities made available through the ACMD partnership and precinct. These may include programs that will inspire the next generation of medical technology entrepreneurs.

Working across a joint appointment between the Melbourne School of Engineering (MSE) and the Faculty of Medicine, Dentistry and Health Sciences (MDHS), embedded within the ACMD, the Chair will focus on developing strong long-term partnerships between these three groups and their many partners.

The key research areas that the University of Melbourne plans to focus on in ACMD initially fit within the ACMD's strategic themes as follows:

- » Smart devices, bionics and implantables
- » Bionics, electric medicine technologies and brain-computer interfaces
- » Personalised smart implants for orthopaedic and maxillofacial reconstruction
- » Regenerative medicine
- » Tissue engineering and bio-fabrication
- » Design and scale-up for manufacture of stem cells and biomaterials

This position has been supported by the generous gift of the Shanahan family who share the University of Melbourne's vision to support instrumental partnerships between clinical entrepreneurs, engineers and scientists that will change the face of medical treatments and cures.

## 1. Selection Criteria

### EDUCATION / QUALIFICATIONS

- » A postgraduate research degree such as a PhD in Engineering, Medicine or Science.

### ESSENTIAL – KNOWLEDGE & SKILLS

- » An international leader in the field of medical innovation representing a dedicated interest in advanced development work in the domain.
- » Demonstrated success in fostering excellence and leadership in developing scholarly, research and professional activities, both nationally and internationally in the field of medical innovation.
- » Experience working at a senior leadership level with demonstration of positive key leadership traits including commitment and passion, great communication, innovation and integrity.
- » An outstanding track record of industry-engaged research that demonstrates research impact and translation to practise.
- » Demonstrated ability to build and maintain strong professional relationships with a diverse stakeholder group including experience driving proactive engagement with benefactors.
- » Highly developed interpersonal, written and verbal communication skills.
- » A demonstrated ability to build and lead successful research teams.
- » Excellent research publication track record in peer-reviewed international journals.
- » A track record of success in obtaining international and national competitive research grants and programs and industry contracts.
- » Established effective teaching skills in undergraduate programs and supervision of higher degree research candidates.
- » Commitment to the highest standards of scientific and ethical integrity.



## 2. Key Responsibilities

### RESEARCH

- » Lead an innovative research program in the field of medical technologies.
- » Provide academic leadership across all aspects of medical technology innovation.
- » Attract research funding from a variety of sources, including national and international competitive grants and external partners, including industry and government.
- » Support the establishment of effective collaborations between multidisciplinary groups across the University, the ACMD and national and international research partners required to support this agenda.
- » Publish papers on findings from research conducted and make presentations at national and international scientific conferences and industry forums.
- » Attract, supervise and mentor junior researchers and higher degree research students.
- » Mentor staff and research students to publish in top tiered refereed journals, books or monographs, reports and refereed conference proceedings, and in the process of securing patent protection.

### TEACHING AND LEARNING

- » Proactively foster an environment of learning through sharing new learnings and training approaches for the design and translation of medical technologies.
- » Contribute to the teaching program of the Master of Biomedical Engineering and related degrees.
- » Guide the development of teaching programs within the ACMD precinct.

### LEADERSHIP AND SERVICE

- » Provide national and international leadership in medical technologies.
- » Actively contribute to the overall leadership and strategic goals of the Melbourne School of Engineering, the Faculty of Medicine, Dentistry and Health Sciences and the ACMD.
- » Provide Leadership in the University's partnership with the ACMD. Shape the framework for the ongoing collaboration and align the ACMD's and University's innovation strategies.
- » Contribute to the success of the University's Graeme Clarke Institute for Biomedical Engineering and optimise its contribution to the success of the ACMD.
- » Proactively build collaborative opportunities with Australian and international industry and research facilities.

- » Foster and develop existing strategic relationships between the University and industry while forming new relationships.
- » Foster a harmonious workplace environment that is conducive to productivity, promotes creativity, and rewards and recognises individuals and group achievement.

### ENGAGEMENT

- » Work across the intersection of engineering, medicine and science through engaging key stakeholders and groups to collaborate on greater outcomes.
- » Provide leadership in engagement with the ACMD. Drive alignment between outcomes of the ACMD and the University through a strong communication framework and approach.
- » Drive the national and international profile for the University and the ACMD.
- » Develop and implement education and research models which can be applied across a broad range of government and industry settings.
- » Engage in activities to support and influence relevant government policies and industry practices by coordinating activities across the University as appropriate.

- » Champion discussion, education and community engagement.
- » Develop a communication strategy that targets a range of audiences and links with government, national and international bodies as appropriate.

### DONOR ENGAGEMENT

- » Lead active, meaningful and sustained engagement with donors of the philanthropically supported position, including, where appropriate, through:
- » Active participation in communications, publicity and events resulting in meaningful engagement with the donors, including in partnership with the Advancement Office.
- » Consistent use of the endowment title in all official correspondence, communications and publicity.
- » Annual reporting on the appointee's activities, contributions and achievements against the responsibilities and expectations of the position (to be included in annual endowment/impact reports to the donor/s).
- » Regular contact with the donors, providing updates and advice on activities, contributions and achievements relevant to the position, including in partnership with the Advancement Office.



# HOW TO APPLY

## The process and anticipated timeframes

- » Applications close:  
Late November 2020
- » Initial longlisting of candidates:  
December 2020
- » First Round Interviews being held:  
January / February 2021
- » Final Interviews & Campus visit  
(3-day schedule):  
April/May 2021  
(Indicative only - pending changes to  
current travel restrictions)

Applications are to made via the University's careers portal.

Further details here: [jobs.unimelb.edu.au](https://jobs.unimelb.edu.au)

## Expression of interest

- » Cover letter of no more than 2 pages addressing your rationale for applying and how you would leverage this opportunity.
- » A current curriculum vitae (CV) which includes the names and contact details of at least four referees (preferably including a current or previous supervisor and three international referees of high standing with whom you have not collaborated directly).

## Referees

- » Applicants must provide full contact details for four referees who have agreed to supply confidential references if requested by the University
- » State your relationship to the referees and why they have been nominated
- » Referees will only be contacted if you proceed for the face to face interviews stage
- » The University reserves the right to request for alternate referee reports from experts in the field other than those already nominated



# SELECTION AND APPOINTMENT PROCESS

## Three (3)-day campus visits -

Please note the below structure is subject to change in response to lock-down restrictions resulting from the current Covid19 pandemic. We may need to move parts of this process to on-line forums.

### Process for final shortlisted candidates

#### Seminar Presentation

- » Candidates are asked to present a (strictly) 30 minute talk on a topic related to their research. The seminar audience will comprise a general audience with 30 minutes allocated for Q&A.
- » We will need a brief write-up on the seminar to promote it internally.

### Interview with the selection committee

- » We will confirm the interview time and venue with you prior to your arrival.
- » Interviews will be held as part of your three(3)- day campus visit and usually on a different day to your seminar.
- » Our preference remains to bring you onto our Parkville campus for your final interview, and various meet and great activities we plan, however in the current pandemic environment we remain flexible and will adapt in order that we maintain an inclusive process for all candidates.

### Visit to the University of Melbourne, Parkville and Melbourne Connect campuses

- » We will confirm travel and accommodation details with you upon confirming your availability. Visits are usually held for two to three days where you will get to meet various academic and professional staff members within the School.
- » You will be hosted by a member of the School's team, who will be your 'go to' / tour guide during this time.
- » Your host will provide you with a schedule of your visit and introduce you to our Dean and other leaders in Melbourne School of Engineering.
- » You will also have an opportunity to meet with a member from the Human Resources team to answer any additional queries you may have and know more about the benefits and resources that are available to support you and your family. Some of the staff benefits have been included in the subsequent pages.

### Enquiries

For discussion about this role, please contact:

#### Sarah Francis

Talent Acquisition Manager - Melbourne School of Engineering  
sarah.francis@unimelb.edu.au  
+61 412 301 561

The University reserves the right to invite applications and not make an appointment.





# THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a public-spirited institution with an outstanding reputation for excellence in research, learning and teaching, and engagement.

With a history of more than 160 years, the University occupies a special place in the heart of Melbourne's intellectual and cultural scene. It offers a vibrant and stimulating environment for more than 7000 staff members and 50000 students, including 12000 international students from more than 120 countries. It has an annual budget exceeding A\$2 billion.

Ranked as the leading university in Australia, and situated at 38 on the Academic Ranking of World Universities (ARWU), it is consistently situated among the fastest-rising research universities. The University is counted among the best in the world – 32 by the Times Higher Education and 26 by the US News & World Report Rankings.

## The Melbourne Model

Building on long-standing traditions of leadership and innovation in teaching and embracing international developments in curriculum design, the University introduced the Melbourne Model in 2008. The distinctive educational model offers degrees in three broad cycles. At Bachelor level, students select from one of six broad degrees (offering a total of 87 major fields of study) and a limited number of specialist offerings. These programs lay the intellectual foundations for future employment or further study. Most professional qualifications are subsequently offered at Masters level, where students can choose from a variety of professional or specialist graduate programs offering intensive graduate-level experiences that promote deep professional learning. At Doctoral level, students work alongside and are nurtured by international research leaders in a broad range of fields.

The Melbourne Model's curriculum combines academic breadth with disciplinary depth to strategically reposition the University in an increasingly globalised higher education framework. The University prepares its students to enter a world marked by rapid change where graduates must possess the applicable knowledge, and flexible and adaptable skills, to succeed.



# PEOPLE AND BENEFITS

The University is committed to providing an intellectually stimulating and personally rewarding workplace which attracts people who are the best in their professional, academic and teaching fields. Outstanding academic staff are at the heart of the University's teaching, research and engagement endeavours. The University is proud of its many staff recognised through prestigious national and international awards and through membership of Australia's esteemed academic organisations.

The University offers an opportunity to be part of a dynamic world-class organisation which provides its staff with exceptional benefits and support at every stage of their life and career. These include:

- » Working in a culturally inclusive environment
- » Engaging in an active and vibrant campus life
- » A focus on health and wellbeing

## Outstanding staff benefits in addition to competitive salary packages

Staff benefits on offer at the University include the opportunity to salary package everything from childcare and additional superannuation to subscriptions to the Melbourne Theatre Company. Benefits can be tailored to best suit individual needs and circumstances, including generous relocation support. Course fees can also be salary packaged and come at a 25 per cent discount for staff and their immediate families. The University has high numbers of women returning to work from parental leave and was one of the first winners of the Fair and Flexible Employer Recognition award.

For more information on benefits see about. **[unimelb.edu.au/careers/working/benefits](https://unimelb.edu.au/careers/working/benefits)**



# LIVING AND WORKING IN MELBOURNE

## Geography

Melbourne is the capital city of Victoria - and is the second largest city in Australia with a population of more than 4.5 million people and a metropolitan area of 9990.5 km<sup>2</sup>. The Economist Intelligence Unit has rated Melbourne one of the world's most liveable city for six consecutive years, based on its education, entertainment, health care, research and development, tourism and sport.

The City of Melbourne municipality, in which the University's main Parkville campus is based, covers 37.7 km<sup>2</sup> and has a population of more than 143 000 people. It includes the city centre and a number of attractive inner suburbs with thriving communities and businesses.

The City of Melbourne is home to residents from 180 countries who speak more than 233 languages and dialects and follow 116 religious faiths.

The Wurundjeri, Boonwurrung, Taungurong, Dja Dja Wurrung and the Wathaurung people of the Kulin Nation are the Traditional Owners of the land now known by its European name of Melbourne.

The City of Melbourne is recognised as Australia's cultural capital with a number of world-class galleries and museums, internationally renowned food and wine regions, and an impressive year-round calendar of events catering for all tastes.

## Parkville Campus

The Parkville campus provides easy access to cafes, shops and services; libraries with extensive collections; as well as cultural and sporting facilities. Nearby Lygon Street is home to a huge variety of cafes and shops while the northern end of the University is adjacent to the popular Princes Park, hosting a range of outdoor activities.

Parkville is recognised as the hub of Australia's premier knowledge precinct, comprising eight hospitals as well as numerous leading research institutes and knowledge-based industries. Although a sizable portion of the Faculty of Medicine, Dentistry and Health Sciences is located in Parkville, the Faculty also has academic departments co-located at a range of health services throughout the Melbourne metropolitan area and rural and regional Victoria. These include St Vincent's Hospital, The Royal Victorian Eye and Ear Hospital, Austin Hospital, Western Health, Northern Health as well as the Department of Rural Health based at Shepparton in the Goulburn Valley with health services affiliations to almost 40 smaller towns in rural Victoria.





# FURTHER INFORMATION AND WEBSITE ADDRESSES

General information about the University of Melbourne and this opportunity is available through the following websites:

## About the University of Melbourne

[about.unimelb.edu.au](https://about.unimelb.edu.au)

## The University of Melbourne's Strategic Plan

[about.unimelb.edu.au/strategy/advancing-melbourne](https://about.unimelb.edu.au/strategy/advancing-melbourne)

## 2019 Annual Report

[about.unimelb.edu.au/strategy/annual-reports](https://about.unimelb.edu.au/strategy/annual-reports)

## Melbourne School of Engineering

[eng.unimelb.edu.au/](https://eng.unimelb.edu.au/)

## Faculty of Medicine, Dentistry and Health Sciences

[mdhs.unimelb.edu.au](https://mdhs.unimelb.edu.au)

## Biomedical Engineering Department

[biomedical.eng.unimelb.edu.au/](https://biomedical.eng.unimelb.edu.au/)

## Melbourne School of Medicine

<https://medicine.unimelb.edu.au/>

## Akinhead Centre for Medical Development

<https://www.acmd.org.au/>

## Graeme Clarke Institute

<https://clarkinstitute.unimelb.edu.au/>

## The Melbourne Biomedical Precinct:

<https://www.melbournebiomed.com/>

## Apply

For other career opportunities at the University of Melbourne, and to apply, please visit: [about.unimelb.edu.au/careers](https://about.unimelb.edu.au/careers)

## Applications close:

