Faculty of Medicine, Dentistry and Health Sciences
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This strategy has been developed on Wurundjeri Country, upon which the University of Melbourne (Parkville campus) is built. The Faculty of Medicine, Dentistry and Health Sciences acknowledges the traditional custodians, the Wurundjeri people of the Kulin Nation, and we pay our respects to Wurundjeri community and Elders, past and present. We also pay our respects to all Indigenous nations upon whose land other campuses sit and where our students, staff and partners undertake teaching and learning, research and clinical activities, including those globally.
Message from the Dean of Medicine, Dentistry and Health Sciences

Healthcare is always evolving. Our graduates must be able to adapt to new technologies while treating changing patterns of disease and an ageing population. So we must help them cultivate the skills, knowledge and character they need to shape and respond to a rapidly changing world. We have long excelled at traditional classroom teaching but we are increasingly embracing more interactive models of education that focus on the solution of problems rather than simply the transmittal of knowledge. And to help us create future leaders in healthcare we are embedding leadership skills in our courses, including ethics, communicating with patients and how to work in a team to achieve the best outcomes.

Since 1862, the University of Melbourne has contributed to the health and wellbeing of society – training excellent clinicians and producing high-impact research that makes a real difference to people’s lives.

At ninth place on the Times Higher Education (THE) 2018 rankings for clinical, pre-clinical and health disciplines, the Faculty of Medicine, Dentistry and Health Sciences attracts some of the best and brightest minds in Australia and overseas.

At the Faculty, our primary responsibility is to our students and their careers. Students come to the University of Melbourne to be inspired, and sometimes transformed, by talented teachers. Our teaching academics do more than impart information – they help students realise their potential, spark their curiosity, and embody a commitment to the health and wellbeing of society and its citizens.

Since inception the Faculty has always worked in collaboration with its partners – with hospitals and medical research institutes, with governments, the community, and with the health-related industries. For more than 150 years the Faculty and its antecedents have worked to establish respectful and mutually beneficial relationships with partners – relationships that have formed the basis of Australia’s greatest concentration of healthcare, biomedicine and higher education.

In the coming decade, these partnerships will become even more fundamental to our work. Programs such as the Medical Research Future Fund will promote even greater collaboration between researchers and healthcare professionals, to deliver improvements to patient, system or commercial outcomes.

The University’s position in the Melbourne Academic Centre for Health gives us and our partners the collective strength to co-ordinate activity where there are shared goals and engage more effectively with government to support health policy reform. And together, with our healthcare partners and our state, we aim to become one of the leaders in the use of data and informatics for improving health.

It gives me great pleasure to present our Faculty to you.

Professor Shitij Kapur
Dean, Faculty of Medicine,
Dentistry and Health Sciences
Assistant Vice-Chancellor (Health)
Established in 1853, The University of Melbourne is a public-spirited institution that makes distinctive contributions to society in research, learning and teaching and engagement. We are committed to being one of the finest universities in the world, contributing to society in ways that enrich and transform people’s lives. Ranked as the number 1 University in Australia and 32 in the world®, The University of Melbourne offers a uniquely Australian experience helping graduates become well-rounded, thoughtful and skilled professionals capable of making a positive and global impact. Situated in the heart of Australia’s second largest city, Melbourne has a fast-growing population of approximately four million. It is an international cultural hub characterised by friendly people, festivals, sporting events, architecture, art, cuisine, an outdoor lifestyle, green spaces and beaches.
At a glance

Global rankings

#1 in Australia

#32 in the world

#7 in graduate employability worldwide

Times Higher Education World University Rankings 2018/QS Graduate Employability 2018

Student satisfaction

#1

First among Go8 for student satisfaction with teaching

Source: qilt.edu.au

Research income¹

$475 M

20 highly cited researchers

Most of any Australian university

50 270 equivalent full-time students³

51.5% u/grad

48.5% grad

Grants

$171 M

in NHMRC and ARC grants

¹ Student population exceeded 65 000 with 55% enrolled in postgraduate courses and 45% in undergraduate courses

unimelb.edu.au
Melbourne Biomedical Precinct

Melbourne has biomedical capabilities unparalleled in Australia and the Melbourne Biomedical Precinct ranks as one of the best facilities of its kind in the world. Located on the edge of the CBD, the precinct is a hub of innovation, home to an exceptional network of skilled workers, quality education providers and leading research institutes and hospitals.

The precinct has established itself as one of the world’s top five biomedical precincts. The 30 precinct partners and some 10000 researchers are engaged in breakthrough biomedical and healthcare research, particularly in child and adolescent health, cancer, mental health and neurosciences, infectious diseases and healthy ageing. In total, precinct partners employ around 28000 people and contribute approximately $3.6 billion to Victoria’s gross regional product.

The University of Melbourne, Australia’s leading research university, is the dynamic hub of the precinct with the University’s research in biomedical and health sciences led by the Faculty of Medicine, Dentistry and Health Sciences, in collaboration with research activities in Engineering, Law, Science and Veterinary Science.

The Bio21 Molecular Science and Biotechnology Institute (Bio21 Institute) is a $140 million core research and development facility belonging to the University. This multidisciplinary research centre specialises in medical, agricultural and environmental biotechnology and is one of the largest biotechnology research centres in the country.

The Bio21 Institute is being expanded to house CSL’s Global Research and Translational Medicine Hub. The $36.4 million, 5000sq metre expansion allows for further development of major technology platforms that underpin personalised medicine and the development of new diagnostics. CSL expects to double the presence of its research scientists at the Institute.

The University’s biomedical and health sciences research places great emphasis on translational research and improving clinical outcomes. Teams of interdisciplinary scientists collaborate on a wide spectrum of activities – from fundamental research and exploring specific health problems to the development of new preventative and treatment methods and the evaluation of the most effective and cost-efficient ways for re-configuring whole health systems.

The Faculty of Medicine, Dentistry and Health Sciences has strong collaborative links within the Melbourne Biomedical Precinct and with many leading national and global research institutes, clinical centres and health-related industries.

The Faculty is proud to be part of the Melbourne Biomedical Precinct that is nurturing the next generation of outstanding achievers. We share the Precinct’s commitment to pioneer the world’s best practices in patient treatment and care, for the benefit of not only Australians, but people everywhere.
Australia’s leading university at the heart of
Australia’s premier biomedical cluster

HOSPITALS
1. Austin Health
2. Dental Health Services Victoria
3. Epworth Healthcare
4. Goulburn Valley Health
5. Melbourne Health
6. Mercy Health
7. Northern Health
8. St Vincent’s Hospital
9. The Royal Children’s Hospital
10. The Royal Victorian Eye and Ear Hospital
11. The Royal Women’s Hospital
12. Western Health

RESEARCH INSTITUTES AND CENTRES
13. Bionics Institute
14. Centre for Eye Research Australia
15. Doherty Institute
16. Florey Institute
17. Monash Institute for Pharmaceutical Science
18. Murdoch Childrens Research Institute
19. National Ageing Research Institute
20. Peter MacCallum Cancer Centre
21. St Vincent’s Institute
22. Walter and Eliza Hall Institute

OTHER PARTNERS
23. CSIRO
24. CSL
25. Orygen, Youth Mental Health
26. Victorian Comprehensive Cancer Centre
27. Rural partnerships, Ballarat, Bendigo and Wangaratta and Dental at Gippsland (Not indicated on this diagram)
Faculty at a glance

Australia’s leading health and medical faculty

SCHOOLS
- Melbourne Medical School
- School of Biomedical Sciences
- Melbourne School of Population and Global Health
- Melbourne Dental School
- Melbourne School of Psychological Sciences
- Melbourne School of Health Sciences

EDUCATION
- Total students: 8,800+
  - Undergraduate: 1,700+
  - Postgraduate (coursework): 4,800+
  - Higher degree research students: 2,300+
  - International students: 1,600+ from over 100 countries
  - 160+ courses covering the breadth of health and biomedicine
  - Professional staff: 800+

RESEARCH
- Annual research income of more than AUD $280 million
- 4,000+ peer-reviewed publications each year
- Over 50% of publications in top 10% of journals
- Over 20% of publications in top 10% of world’s most cited
- Academic staff: 1,700+ including 1,300+ research academics
- Honorary academics: 3,500+ including 2,000+ hospital-based honorary staff

OUR RESEARCH STRENGTHS

RESEARCH PILLARS
- Cancer
- Child Health
- Infection and Immunity
- Neurosciences and mental health

MAJOR PRIORITIES
- Disease burdens such as cardiovascular, ageing and metabolic disease
- Community priorities such as Indigenous Health, Family Violence
CENTRES

Melbourne Poche Centre for Indigenous Health
Melbourne Research Alliance to End Violence Against Women
University of Melbourne Centre for Cancer Research
Centre for Health, Exercise and Sports Medicine
Centre for Youth Mental Health
Centre for Stem Cell Systems
Centre for Health Policy

OUR CONTRIBUTIONS

Nobel Laureates in Physiology or Medicine and Peace have taught, studied and researched at the University of Melbourne including:
Lord Howard Florey (1945)
Sir Frank Macfarlane Burnet (1960)
Sir John Eccles (1963)
Professor Bert Sakmann (1991)
Professor Peter Doherty (1996)
Professor Elizabeth Blackburn (2009)
Professor Tilman Ruff (2017)

- Discovery of lithium therapy as an effective treatment for bipolar disorder (Dr John Cade)
- Development of the bionic ear (Professor Graeme Clark AC)
- Development of Recaldent to help prevent and reverse dental decay (Professor Eric Reynolds AO)
- Discovery of the human Rota virus and development of a vaccine for infants and young children (Professor Ruth Bishop AO, Professor Julie Bines)
- Road trauma injury research leading to life-saving safety control measures (Professor Donald Hossack)
- Identification of the first gene implicated in the development of epilepsy (Professor Ingrid Scheffer)
- Eye health research and policy recommendations resulting in halving the gap in the rates of blindness in indigenous communities (Professor Hugh Taylor AC)
Partners in excellence

In education, research, transformation of healthcare and the development and delivery of new healthcare services and products, the Faculty of Medicine, Dentistry and Health Sciences is intrinsically tied to its partners.

Our students benefit from our longstanding relationships with many of the country’s leading health research institutes including the Water and Eliza Hall Institute of Medical Research (WEHI), Royal Melbourne Hospital (RMH), The Peter Doherty Institute for Infection and Immunity (PDI) and the Victorian Comprehensive Cancer Centre (VCCC).

These institutes have fostered outstanding scientists and offer extraordinary opportunities for our researchers to assist in finding solutions to the world’s great health challenges. Staff working in our affiliated hospitals assist our students in their transition into the clinical hospitals and make significant contributions to our teaching and research programs.

Walter and Elizabeth Hall Institute of Medical Research

Australia’s oldest medical research institute, WEHI was founded in 1915 with the intent of being the ‘birthplace of discoveries rendering signal service to mankind in the prevention and removal of disease and the mitigation of suffering’. Today the institute has

- 1077 staff and students
- 100 national and international trials based on Institute discoveries
- 50+ diseases impacted by institute research

WEHI is affiliated with The University of Melbourne and The Royal Melbourne Hospital in its offering of undergraduate (honours) and graduate research training opportunities through the Faculty’s Department of Medical Biology. Additionally, collaborative research is undertaken in the thematic areas of cancer, chronic inflammatory diseases and infectious diseases in laboratories based in Parkville and Bundoora.

Austin Health

Austin Health comprises the Austin Hospital, Heidelberg Repatriation Hospital and the Royal Talbot Rehabilitation Centre. The organisation’s vibrant research precinct includes Hospital and University of Melbourne Departments. This partnership brings together 800 innovative researchers working within eight independent institutions conducting research into cancer, diabetes, respiratory disease, liver disease, heart disease, stroke, epilepsy and psychiatry.

Alongside research endeavours, The Austin Clinical School is a strong collaboration between the Melbourne Medical School and the Austin Health Service. Students spending their clinical years at the Austin Hospital are provided an excellent opportunity to gain knowledge, be inspired by leaders in the profession and gain exposure to an abundance of medical career options.
Our commitment to the national population

The Faculty of Medicine, Dentistry and Health Sciences is committed to providing first class education and resources to rural Victorian’s as well as leading Australia in its efforts to train the next generation of Indigenous and Torres Strait Islander health professionals. There are a number of pathways, programs and supports in place to recruit and mentor rural and Indigenous students through to graduation and beyond.

We are also making efforts to close the health gap for Indigenous Australians outside of classrooms and campuses. Our researchers are working in partnership with Indigenous communities and organisations to improve Indigenous health outcomes in the areas of the greatest need.

Rural Clinical Schools

Our Rural Clinical Schools have campuses at Ballarat, Bendigo (in partnership with Monash), Shepparton and Wangaratta and associations with over 40 smaller towns in rural Victoria. The Schools aims are to provide an integrated approach to rural health education and training while simultaneously improving health service provision and outcomes for people living in rural and regional Victoria. Close relationships with local hospitals and other rural health services and the sharing of resources and staff enable an integrated approach that tremendously benefits both our students and the rural communities.

The Melbourne Poche Centre for Indigenous Health

Created in 2014 through the generosity of Greg Poche and Kay van Norton Poche, the Melbourne Poche Centre for Indigenous Health is Australia’s preeminent training and development program for emerging and established Indigenous health leaders.

One of its key initiatives, the PhD Familiarisation Program, supports the enrolment and graduation of Indigenous PhD candidates and postdoctoral Fellows in health. The Centre’s Leadership Fellows Program supports and develops emerging Indigenous leaders in academic, policy, clinical and research roles through structured engagement with Elders, Sponsors and Mentors.

The Melbourne Dental School

Developed a partnership with Miwatj Health, an Aboriginal community-controlled health service based in Nhulunbuy, Eastern Arnhem Land (EAL) in the Northern Territory as part of the University of Melbourne’s collaboration with the Yothu Yindi Foundation. This teaching, research and engagement partnership is developing and testing a new model of care. The program will prevent dental disease, improve oral health literacy and promote health by providing sustainable and accessible dental services and increasing the oral health workforce in the region through student clinical rotations.
Key research themes

“The Faculty’s real strength is reflected not in its rankings but in the breadth of its research and the commitment to excellence and discovery” – Professor Mike McGuckin, Associate Dean Research.

The Faculty is positioning itself to benefit from this once-in-a-generation new investment in medical research by working with its partners to develop compelling funding proposals. We are finding new ways to collaborate across disciplines, Schools and organisations and we want to focus on proposals that prioritise clinical/patient/commercial facing outcomes.

The Faculty has four major research pillars:

**Cancer:** Cancer research encompasses prevention, detection, treatment, care, and health system transformation to address this most significant burden of disease.

**Child Health:** Our research in child health includes the whole-of-life continuum, from the early life environment through adolescence and reproductive potential to optimise whole life health.

**Infection and Immunology:** Our research in this area investigates immunology and infection including basic research, translation and public health. Research is informed by diseases that have a global and significant burden.

**Neuroscience:** This includes research in the fields of neuroscience, psychiatry, mental health and the study of basic psychological processes.

Business Development Directors within each Faculty provide commercial advice and support and generate new research income through the identification, establishment and management of commercial relationships and the translation and commercialisation of intellectual property. The Faculty’s Business Development team is looking at ways to expand research income through domestic and international grants, revenues from contract research and industry collaboration, consultancy fees and major public and private sector tenders. Developing an entrepreneurial culture is essential to accelerate the commercialisation of our research and teaching expertise.

We are constantly improving how we invest in, and manage, cutting-edge research technology platforms as the Faculty works to cement its position as Australia’s leading health and biomedical university.
Teaching and learning

Over the coming decades, healthcare will be transformed by new technologies, complex and changing patterns of disease and an ageing population. At the forefront of these changes will be healthcare professionals dedicated to quality and innovation.

Educating future generations of our health workforce is an important responsibility. To best adapt to changing community needs, the Faculty is committed to providing learning environments that stimulate, challenge, and develop the potential of students to become the leaders of tomorrow.

We focus on the student lifecycle and provide opportunities for undergraduate and postgraduate learning and for continuing professional development.

We are developing a curriculum that recognises that students want more interactive and engaging experiences to support their learning. Integrating new technologies with face-to-face learning is the best way to achieve this. We are moving towards online and blended learning and using different teaching modalities.

“Sometimes we deliver in didactic lecture mode but increasingly we use other forms of delivery, such as the ‘flipped classroom’ where students do pre-reading or watch a lecture online before class, so when they do come to class they can have a very different learning experience and an opportunity to extend their knowledge,” says Professor Marilys Guillemin, Associate Dean Learning and Teaching.

“In anatomy, students learn where different parts of the body are through body painting and volunteers become living canvases. This is an effective example of using a sensory method to impart and embed knowledge, rather than simply memorising that information from a textbook.”

The University has also invested in student spaces. Learning doesn’t only occur in lecture theatres and libraries, our students learn in purposely designed informal learning spaces where they can meet, talk and work on assignments.

“We are investing in resources and facilities that recognise people learn in different ways and we must accommodate those different needs,” says Professor Guillemin.

The Faculty is also placing a greater focus on inter-professional learning and will expand the opportunities for students to work with partners and communities.

“The next stage is to bring different professional discipline groups together so students aren’t taught in a silo. We want to foster inter-professional engagement,” says Professor Guillemin.

The Faculty’s partnerships are pivotal to the quality and strength of the teaching programs and provide valuable opportunities for students in industry, clinical programs and on placements in hospitals and community health centres.

We are a strong teaching Faculty, as well as a research Faculty, and we spend a great deal of time supporting the professional development of our teachers. Our systematic peer review teaching program ensures teachers constantly learn new ways of doing things and are part of a continuous quality improvement cycle. We are focusing on teaching that best prepares our students for tomorrow, and we recognise and reward our teachers who excel in supporting this goal.

Graduates of our Faculty should leave the University equipped not only to excel in their professions of choice, but they should also be well-placed to lead the changing nature of the health landscape.
Melbourne Dental School

Melbourne Dental School is the oldest dental school in Australia and in recent years it has attracted more research funding than any other dental school in the country.

“Our students have access to people working in the real world who are at the top of their game. That is a priceless contribution,” says Professor Mike Morgan, Head of Melbourne Dental School.

The School is at the forefront of teaching technologies. Students receive pre-clinical training in three-dimensional Haptic Virtual Reality Simulation Laboratories where they can virtually undertake surgical procedures on teeth. Histopathology laboratories have also harnessed virtual reality and students learn to use three-dimensional printers to print teeth, dentures and crowns.

Our Research and Impact: Melbourne Dental School is a research-intensive School that hosts the Oral Health Cooperative Research Centre. There is great breadth of research across the School determining the causes of oral diseases at population, individual, cellular and molecular levels. This knowledge is being applied to develop new technologies, materials and changes to clinical practice to improve oral health.

Translation of this research into practice is enhanced by our close working relationships with industry, government and institutional partners. This approach is exemplified by Professor Eric Reynolds and his team who are developing a world-first vaccine for the treatment of periodontitis (gum disease). Periodontitis is the leading cause of tooth loss in adults and is linked to a range of systemic diseases including rheumatoid arthritis and cardiovascular diseases.

Our Engagement: The front line of community engagement is the Melbourne Dental Clinic. The 50-chair facility in the city is a private clinic staffed by final year Doctor of Dental Surgery and Bachelor of Oral Health students. Doctor in Clinical Dentistry students who are specialists-in-training also provide more complex dental treatment to private patients. Students provide oral healthcare to public patients in the dental hospital and community centres in metropolitan and rural Victoria.

“We are close to the clinical coalface. From their first year, students engage with patients providing clinical care and behavioural management through the Royal Dental Hospital of Melbourne and other Community Health Centres,” says Professor Morgan.

Doctor of Dental Surgery and Bachelor of Oral Health students are placed in Indigenous communities to identify effective models of oral health and dentistry care. The School has an Indigenous Oral Health Partnership with Rumbalara Aboriginal Cooperative in Mooroopna and Miwatj Health, an Aboriginal community controlled health service in East Arnhem Land in the Northern Territory. Doctor of Dental Surgery and Bachelor of Oral Health students are also rostered to clinics and hospitals in Shepparton and the La Trobe Valley.
Melbourne Medical School

The Melbourne Medical School was the first school to graduate doctors in Australia. Founded in 1862 by Sir Anthony Colling Brownless, it has a reputation nationally and internationally for its teaching, research and engagement in the health sector.

The School encompasses all major fields of medicine with Departments of: Clinical Pathology, General Practice, Medical Education, Medicine and Radiology, Obstetrics and Gynaecology, Paediatrics, Psychiatry, Rural Health and Surgery. These Departments are embedded within clinical health services throughout metropolitan Melbourne and rural Victoria.

“We are committed to the School’s mission of working with communities we serve to improve health and advance healthcare. We do this through learning and teaching, research, clinical care and advocacy,” says Professor Mark Cook, Acting Head of Melbourne Medical School.

Our Teaching and Learning: The School’s flagship degree is the professional entry Masters-level Doctor of Medicine (MD) that graduates doctors equipped with the skills and knowledge to serve the health system now and in the future.

“A unique and successful feature of the program has been the MD Student Conference that brings all 1400 MD students together at Melbourne Convention and Exhibition Centre for a program entirely developed by the students,” says Professor Cook. “Medical schools around Australia and the world are now looking at our student conference model as a traditional subject alternative and Melbourne is leading the way.”

The School also has a growing portfolio of vocationally-oriented programs that teach research skills, leadership and continue professional development in specific disciplines including the EXCITE (Excellence in Clinical Teaching) program that is building medical training capacity throughout Australia.

Our Research and Impact: Melbourne Medical School is committed to facilitating partnerships with national and international health services and medical research institutes. Current research themes include cancer, cardiometabolic health, child health, critical care medicine, neuroscience, musculoskeletal health and women’s health.

“Our highly collaborative research agenda supports our desire to transform health systems and healthcare delivery, to reduce the costs of those systems, and to improve the lives of individuals and communities locally and globally,” says Professor Cook.

Our Engagement: The School is well-recognised for its global partnerships however it also leads a number of local community events and activities.

The Teddy Bear Hospital is the largest student volunteer activity at the University with over 1200 medical and allied health students participating in fundraising to support the Royal Children’s Hospital Good Friday Appeal.

“Children bring their teddy bears and interact with students who, under medical supervision, play the role of teddy doctors. As well as raising significant funds for the hospital, it normalises healthcare interactions for the children and our students practice valuable communication skills as part of the experience,” says Professor Cook. Students work in school-based and rural programs, sports clubs and student clinics across Melbourne and Victoria.

“We have a strong commitment to closing the gap in Indigenous health and we have a partnership with Rumbalara Football Netball Club in Shepparton where we’re part of the community practice for the Indigenous community,” says Professor Cook. “In fact, we are renowned for our clinical schools and departments, which are well distributed throughout northwest Melbourne and northeast Victoria. They are very much a part of the health services with which we are partnered, and connect well with local communities. Our medical students learn a great deal from mixing with local community members of all different cultures, and it’s good for the community to see world class research taking place in their neighbourhood.”

The School participates locally and globally in public debate and advocacy around key health issues and policy based on its values of commitment, integrity, compassion, respect and service.
Since its inception in July 2009, the Melbourne School of Health Sciences has created an inter-professional learning community at the forefront of leadership in health sciences education, clinical research, scholarship, professional practice, workforce training and community engagement.

The School has five departments: Audiology and Speech Pathology, Nursing, Social Work, Physiotherapy and Optometry and Vision Sciences, and more than 1300 graduate students.

“Our highly skilled team and outstanding students are discipline leaders contributing to local, national and global efforts to improve health and wellbeing,” says Professor Linda Denehy, Head of School.

Our Teaching and Learning: Teaching and graduate learning focuses on evidence-led, patient-centred care, health promotion across the lifespan, and working to prevent illness and to enhance wellness.

An example of innovation in teaching and learning is a collaborative project involving an augmented reality system for learning functional anatomy in physiotherapy. Technology allows students to look inside the human body by projecting layers of muscles and bones over the top of a volunteer ‘patient’. It provides an inside view of how the body works as it moves in real time.

The School also offers flexible online education to deliver globally-relevant curricula to graduate health professionals, locally and internationally, in all departments and has developed an Indigenous Curriculum Framework that will see all students engaged with Indigenous health.

“We have also built supportive and innovative programs of study for Indigenous students that will academically prepare the next generation of leaders in Aboriginal and Torres Strait Islander scholarship,” says Professor Denehy.

Our Research and Impact: The School has developed research of national and international significance in areas ranging from ageing and cancer to chronic diseases and family violence. It has an NHMRC Centre for Research Excellence in musculoskeletal disorders studying the best way to manage osteoarthritis. Researchers from the Departments of Physiotherapy and Nursing are studying premature and newborn babies, their neurological developmental progress and how to best measure their vital signs. This new system of measurements has been implemented in 75 hospitals in Victoria.

The Department of Optometry and Vision Sciences is leading research on novel ophthalmic imaging techniques to visualise biomarkers of disease within the retina of the eye, such as Alzheimer’s and diabetes. The Department of Audiology and Speech Pathology is examining the use of stem cells in auditory function and is investigating links between age-related cognitive decline and hearing loss.

The Chair of Cancer Nursing works closely with the VCCC and with Physiotherapy and Social Work colleagues in improving the care continuum for individuals with cancer. The PATRICIA project is a multi-state, multi-agency social work research project investigating the interface between child protection and domestic violence. It was recently launched nationally.

Our Engagement: The School is an active participant in the Victorian government’s Glasses for Kids program that provides vision screening in schools in disadvantaged areas, as well as in the RCH Teddy Bear Hospital. The School operates the Audiology and Speech Pathology Clinic and the UMeyecare clinic which are patient-centred, evidence-based clinical best practice services specialising in communication, hearing, balance and eyecare needs for the community.

Internationally, Head of Social Work, Professor Marie Connolly, has reviewed child protection system changes in Bhutan, Nepal, the Maldives and Pakistan. The research was commissioned by UNICEF to investigate ways of strengthening services for vulnerable children and their families.
Melbourne School of Population and Global Health

The Melbourne School of Population and Global Health was founded in 2001 and was the first School of its kind in Australia. It has grown rapidly in size, scope and reputation. The School’s vision is to make a difference by advancing population or public health in communities nationally and internationally.

“As the School has grown and matured, we have worked towards our goal by attracting new staff with new discipline strengths who uphold that same vision,” says Professor Terry Nolan, Head of the Melbourne School of Population and Global Health.

There are five centres and institutes within the School: the Centre for Epidemiology and Biostatistics, the Centre for Health Equity, the Centre for Health Policy, the Centre for Mental Health, and the Nossal Institute for Global Health. The School also incorporates two partnership groups – the Global Burden of Disease Group and the Vaccine and Immunisation Research Group.

Our Teaching and Learning: The flagship Master of Public Health program has 500-plus enrolments complementing a suite of specialist graduate coursework programs in Biostatistics, Epidemiology, Sexual Health and Health Informatics and Digital Health. The School coordinates the newly introduced Master of Ageing – a fully-online degree that brings together teaching staff and researchers from faculties across the University and engages with different community sectors for whom ageing is an important issue.

The School’s teaching staff includes over 50 subject coordinators for 60-plus electives with world-renowned researchers bringing students a research-informed learning experience. There are more than 600 graduate coursework enrolments with around 20 per cent of those being international students. The School has exchange relationships with universities and public health organisations in countries including Sweden, Canada and India.

Our Research and Impact: The School’s research strengths focus on four priority areas: Disparities, disadvantage and effective healthcare; Data Science, health metrics and disease modelling; Screening and early detection of disease; and Prevention and management of non-communicable diseases, including cancer, and promotion of mental health.

Some of the School’s recent major research projects have included the work of the Bloomberg Philanthropies Data for Health Initiative, led by Professor Alan Lopez AC. The key technical leadership of the program is based in Melbourne with the aims of the program seeking to raise consciousness and awareness with government policymakers of the importance of reliable and timely information about who is dying of what in their country. This information can help form the basis of health policies and programs that then accelerate health improvements in populations.

Our Engagement: Strong community engagement is a feature of population and global health programs. For example, researchers and students are examining the experiences of Aboriginal and Torres Strait Islander children and mothers from pre-conception until two years of age to support better maternal and child health. To ensure a collective impact, the project brings together Aboriginal and Torres Strait Islander Elders, researchers, community members, front-line workers and policy makers. Improving Indigenous eye health in remote communities is also part of the School’s work.

On an international level, the School’s Twins Research Australia is recognised as a world leader in facilitating and leading twins research in institutes and hospitals nationally and globally. The Centre for Epidemiology and Biostatistics, under the leadership of Professor Mark Jenkins, is also the epicentre of the International Mismatch Repair Consortium, an international collaboration investigating Lynch syndrome and its connection to some cancers.
Melbourne School of Psychological Sciences

The Melbourne School of Psychological Sciences is one of the oldest and largest in Australia and has been consistently recognised as one of the finest in the world. It is a research and teaching intensive School that caters for approximately 3000 undergraduates, 100 Honours students and 200 Masters and PhD students.

The School prides itself on being engaged with the community. Our academics are gifted science communicators who make research come alive and bring psychology to bear on matters of significant public interest and concern," says Professor Sarah Wilson, Head of School.

Our Teaching and Learning: The Teaching & Learning vision of the School is to engage students in an individualised and cohort learning experience that directly informs their academic studies and promotes their personal, intellectual and social development. The curriculum coverage is broad including cognitive psychology; cognitive and social development through the lifespan; biological psychology and neuroscience; social and personality psychology; applied psychology; and clinical psychology and neuropsychology.

“Our tutoring program is a standout element of our undergraduate teaching. We have a professional program where our tutors are thoroughly trained in how to excite students about their field and to fully engage them in their learning. We have also built supportive and innovative programs of study for Indigenous students that will academically prepare the next generation of leaders in Aboriginal and Torres Strait Islander scholarship,” says Professor Wilson.

Our Research and Impact: The School’s research concentrates on three key areas or hubs - complex human data, decision science, and ethics and wellbeing.

“The complex human data hub applies mathematical and computational modelling to human mind and behaviour. The School is internationally recognised for its cutting-edge work in mathematical psychology and we want to apply this expertise to understanding links from the level of cells to society; from decoding neural processes and cognition through to social processes and cultural change,” says Professor Wilson.

Research focusing on decision making aims to understand the neural and cognitive processes that underlie the choices that we make and how the brain evaluates reward and punishment, illuminating problematic behaviours like obesity or addiction. Equally, our ethics and wellbeing hub brings a unique international focus by examining what it means to live well; personal happiness that is socially and environmentally sustainable. It focuses on applied ethics research, interpersonal behaviour, emotion dynamics and ‘moral psychology’ – how people evaluate right or wrong and resolve social conflict.

Our Engagement: The Melbourne Psychology Clinic is central to our professional training and provides low-cost, high-quality clinical services to the community. It has been running since the 1970s, providing approximately 200 clinical assessments and 1500 psychological treatment sessions each year. Postgraduate students working towards a Master of Clinical Psychology or a Master of Clinical Psychology/PhD work with patients under the supervision of the Faculty’s senior clinicians and registered clinical psychologists.

The School also has clinical connections at a series of hospitals across Melbourne including the Royal Melbourne Hospital, Austin Hospital and St Vincent’s Hospital, as well as research connections with many prestigious international institutions.
The School of Biomedical Sciences was established in 2015 and has more than 2500 student enrolments each year. With a focus on innovation and inclusivity, the School is building on a strong legacy of world class excellence and laying the foundation for new generations of biomedical researchers to lead the revolution in medicine.

“Our teachers are passionate, collaborative educators who deliver content in a way that is easily absorbed. They are keen to innovate in their teaching,” says Professor Mackay.

In 2017, Dr Charles Sevigny, who teaches undergraduate Physiology, won the University’s David White Award for Teaching Excellence.

Our Research and Impact: The School’s research is strong in the Faculty’s key research pillars of cancer, infection and immunity, child health and neuroscience.

Professor David Jackson has developed a vaccine for the prevention and treatment of respiratory infections. Through Innavac Pty Ltd, a biotechnology company spin-out of the Department of Microbiology and Immunology, the research has secured $6.3 million in venture capital funding.

Associate Professor Kathryn Holt and Dr Laura Mackay received two of only 41 awards bestowed internationally by the Howard Hughes Medical Institute. Associate Professor Holt uses genomic tools to study infectious disease-causing microbes important in global health. Dr Mackay leads a lab at The Peter Doherty Institute for Infection and Immunity and focuses on resident memory T cells that reside in tissues, such as the skin and lungs. These cells are critical for fighting infectious disease.

Our Engagement: The School has strong connections with universities in China and a partnership with Bonn University in Germany that support student exchanges. It is increasing its engagement opportunities in India. Through the Australian Venom Research Unit, the School works with communities in Papua New Guinea where trials have been carried out of a new antivenom to treat taipan bites.

Locally, the School works with the Gene Technology Access Centre to organise an annual program in which 60 students from rural and socially disadvantaged communities visit the University to discover study and career opportunities in biomedical science. The event includes mentoring from current PhD students, a microscopy competition and a tour of the Harry Brookes Allen Museum of Anatomy and Pathology.

The Residential Indigenous Science Experience (RISE) brings Indigenous high school students to the University for a week-long STEM intensive program and, as part of this, the School’s Department of Physiology offers a ‘Doctor for a Day’ workshop. The School encourages Indigenous students to study and then use their knowledge and skills to improve health in their local communities.

“This is an exciting time for biomedicine, with revolutions in genomics, computational biology and advanced imaging opening up new ways of understanding the human body. The School of Biomedical Sciences is helping advance these revolutions in teaching and research, with the aim of improving human health,” says Professor Fabienne Mackay, Head of School.