

2023

### Healthier lives for all

Faculty of Health and Medical Sciences Research Strategy





### Healthier lives for all

The University of Adelaide and the Faculty of Health and Medical Sciences is committed to undertaking world-class research with long-lasting positive impact for the many communities we serve. This is why *Healthier lives for all* speaks to our purpose and is central to this Research Strategy.

Healthier lives for all is about building on our legacy of excellence in discovery, clinical care and disease prevention, and identifying opportunities to create new treatments, technologies and interventions that deliver healthier and equitable outcomes for local, national, and global communities.

Our strategy is underpinned by the five pillars of the University's Strategic Plan Future Making and FAME Strategy: Healthy Societies which are designed to strengthen our reputation as a global University, where we have the expertise and scale to make a positive difference to the world.



#### **Our ambition**

Understanding and improving the health of individuals, communities, and populations.



#### Message from the Deputy Dean, Research

The Faculty of Health and Medical Sciences is an aspirational and world-leading research Faculty. Our global reputation of undertaking innovation with impact is built on our long history of doing just that—producing transformative research that has improved the health and lives of our community.

As a Faculty, we are looking to the future. Our research needs to be increasingly responsive to our changing environment, the needs of our community and, where appropriate, be delivered by strong multidisciplinary collaborations, which lead to positive change.

Healthier lives for all is our refreshed Research Strategy that showcases the Faculty's strategic aspirations. It is underpinned by our strategic ambition of *Understanding* and improving the health of individuals, communities, and populations with a focus of driving new ideas and possibilities.

Centred around four inter-related thematic elements—Growth, Discovery, Culture, and Enabling Research Excellence, *Healthier lives for all* will provide the means of driving a research culture that encourages discovery and innovation that benefit the local, national and global communities that we serve.

#### Professor John Lynch

Deputy Dean, Research Faculty of Health and Medical Sciences



I want to thank our researchers, staff, and partners who all were part of the Healthier lives for all journey. I hope that this Research Strategy reflects your voice and your aspiration as part of the Faculty of Health and Medical Sciences.

### Context and purpose

The Faculty of Health and Medical Sciences is committed to providing an environment where our researchers can create new ideas that contribute to knowledge that benefits communities around the world.

Healthier lives for all is our plan to strengthen our ability to respond to the evolving research needs and priorities, and enable our people to continue to produce contemporary and important research Understanding the challenges that will influence the future of health and medical sciences is fundamental to improving and enhancing the way we conduct our research. These challenges currently include:

#### Social and environmental determinants of health Combating drug resistance and Understanding how education, job anti-microbial resistance (AMR) opportunities, income, access to Addressing increased anti-microbial physical activity and nutritious foods all resistance and changing the way to treat impact health quality and equity. common infections. Tackling rates of obesity and chronic Supporting our diseases ageing population Global increases in Ensuring health and social diet-related diseases are systems are ready to support requiring commitment the increased pressure from to target food systems demographic shifts. and education related to sustainable diets. <del>)∭्रै</del> Harnessing innovative **Prevention of infectious** technologies diseases and epidemics Working collaboratively Growing our understanding of with partners to explore infectious diseases, and supporting opportunities to use data the development of epidemic and new technologies to prevention strategies. support positive health outcomes. Ensuring fair and equitable **Building the healthcare** access to health care workforce of the future Tackling health inequities in our socio-Training future healthcare cultural, political and economic systems professionals to meet the health to increase equity of access to care, care services of the future. driving improved quality of life.

# Who we are: Our research

The Faculty of Health and Medical Sciences is focused on the generation of new knowledge, delivering transformative discoveries, and better clinical care through prevention and implementation of innovative health and medical solutions in all areas of human health.

To best align current research activity with future research aspirations, we have represented our Research Ecosystem to illustrate who we are and where we want to be as a future-focused Faculty through Healthier lives for all.

#### Flagship Research Themes

Our Flagship Research Themes represent aggregated areas of our research excellence, scale and depth. The research within our Flagship Research Themes is built on collaboration across boundaries to generate new knowledge and influence global health and medical research.

#### **Research Strengths**

Our Research Strengths represent the research areas where we have a strong track record of delivering research excellence. Our work with both external partners and other stakeholders in these areas has produced significant health and social benefits.

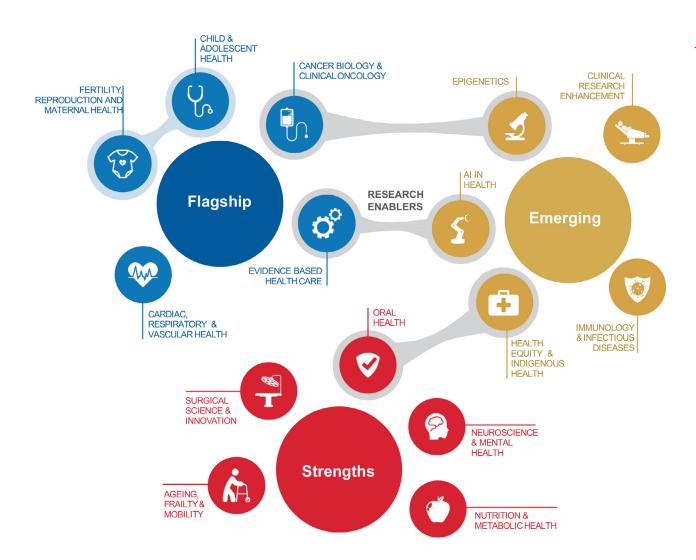
#### **Emerging Research Areas**

Our Emerging Research Areas represent current priorities for the future of our research. They incorporate new and emerging research technologies and enablers that are transforming our understanding of human health, health care and prevention.



#### **Research Ecosystem Schematic**

The Faculty's research ecosystem schematic highlights the interconnectivity of research and how our people work together to produce real benefits for individuals, communities and populations.



While the activities represented in our research ecosystem are depicted as distinct areas, there is growing interconnection between these fields which supports our capacity to generate new discoveries and enhance our research translation.



# What drives our researchers

Our researchers deliver research that distinguishes the Faculty of Health and Medical Sciences in the national and global research environment.

Our research is developed within an environment that fosters excellence, agility, and a desire to work with others, with a shared sense of purpose to advance health for all that inspires and motivates us.



#### Our research drivers



Delivering research with integrity, rigour, creativity, excellence and passion.



Responsive to the current and future challenges of our researchers, partners and communities.



Committed to collaboration and partnership to generate solutions for the local and global issues of our time.



Fostering the next generation of research leaders who are delivering outcomes and innovations with local and global impact.



Advancing health equity across all communities with a focus on delivery to regional and remote areas.

### Our aspirations

#### Growth

Highlight leading research areas and the opportunities to generate new knowledge and impact.

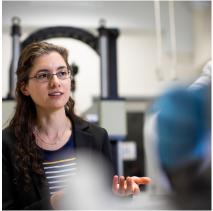
#### **Discovery**

Identify emerging research fields and opportunities to tackle new challenges in different ways.



#### **Culture**

Enhance our research culture to foster the development and impact of our researchers.



#### **Together**

Strengthen relationships with our partners and highlight ongoing and new collaborative opportunities.



#### Enabling research excellence

Identify critical research infrastructure needs and opportunities to support our research activities.



### Growth

Highlight leading research areas and the opportunities to generate new knowledge and impact.

The Faculty of Health and Medical Sciences is committed to enhancing the impact of our flagship themes and research strengths, and strengthening our reputation for excellence, discovery and impact.





Research with excellence and impact has been core to the Faculty since its inception. We know that to continue to be a world-leader in health and medical research, we need to adapt and enhance every aspect of our research environment. Therefore, we will look across boundaries for opportunities to maintain the quality of research; engage with new partners across industry, government and the community sector; as well as explore how existing collaborations can be deepened and further aligned.

#### **Our Strategic Initiatives - Growth**

- Invest in our people and leverage existing leading edge capabilities such as the Adelaide Centre for Epigenetics (ACE)
- Develop a set of strategic initiatives to embolden our research at the South Australian immunoGENomics Cancer Institute (SAiGENCI)
- Support and enhance the profile of our world-leading research programs, including BetterStart, to inform policy and practice to improve health and development outcomes
- Identify opportunities for new interdisciplinary collaboration and research translation through the Faculty's research network, including through Adelaide Health Technology Assessment (AHTA) and Joanna Briggs Institute (JBI).

### Discovery

Identify emerging research fields and opportunities for discovery and impact.



The Faculty of Health and Medical Sciences is committed to identifying and seizing the emerging research opportunities of today to produce solutions for the challenges of tomorrow.

The complex health challenges of our time require expertise outside the traditional health and medical departmental and institutional boundaries. Our future research will often be underpinned by interdisciplinary collaboration. We are committed to supporting the emerging technologies and interdisciplinary research areas that are set to define the future of our health and medical research. We know that through the integration of innovation and diverse thought into our research, we will able to generate research that leads to new knowledge and enhanced translation.

#### **Our Strategic Initiatives - Discovery**

- Establish the Adelaide EpiCentre (Centre for Clinical Epidemiology) to provide support for clinical and applied research in epidemiology and study design
- Establish the Centre for Intelligent
  Health, a new collaborative research
  centre aimed at improving diagnostics,
  personalised medicine, and lifestyle
  decision making, which will enable
  individual predictions of the impact of
  lifestyle choices with unprecedented
  accuracy
- Raise the profile of our Indigenous Research and Indigenous Research leaders through existing and emerging clinical and public health research programs across all disciplines, with a current focus on Indigenous Oral Health

- Invest in our capabilities in research focused on Immunology and Infectious Disease with a focus on developing new, safe and effective vaccines
- Support the development of our clinical trainees through revitalised engagement with partners and providing new placement opportunities for hands-on learning
- Engage with researchers across the University and beyond through our FAME Strategy: Healthy Societies leadership program to conduct interdisciplinary health and medical research.





### Culture

Enhance our research culture to foster the development and impact of our researchers.

The Faculty of Health and Medical Sciences is committed to a research culture underpinned by excellence, quality, and impact that inspires the next generation of research leaders. The quality of research culture affects all corners of the Faculty. It influences how researchers interact and collaborate with others. It improves the quality of research, attracts and retains talented people, encourages new forms of research, and provides a rewarding and enjoyable place of work for all. It will also enhance and diversify research activities, grow research performance and impact, and better align Faculty operations and aspirations to the needs and priorities of our partners.





#### Our Strategic Initiatives - Culture

- Continue and enhance the Early and Mid Career Research Professional Development and Mentorship Program to support the development of our emerging EMCRs to enable to them to develop their own research and research groups
- Better support our researchers in grant and seed funding proposals through immediate resource support to develop and enable more competitive funding applications
- Reinvigorate engagement between experienced research leaders and emerging researchers to further build the culture of support, collaboration and development in the Faculty
- Innovate and activate a vibrant culture
  of sharing research discoveries to open
  up new opportunities for collaboration
  and develop the breadth of capability
  within the Faculty. As part of this,
  the Faculty will re-establish a regular
  seminar series and introduce a suite
  of networking initiatives to support
  engagement
- Forge stronger relationships and embed University commercialisation and business development expertise across the Faculty to enhance research translation and potentially commercialisation activities.

### Together

Strengthen relationships with our partners in health and highlight ongoing and new collaborative opportunities.

The Faculty of Health and Medical Sciences is committed to strengthening existing research relationships and exploring new partnership opportunities to generate long-lasting benefits for all.

Engagement with our partners sits at the core of how the Faculty translates its research. We are focused on collaboration with our network to cultivate mutually beneficial relationships, including enhanced translation and commercialisation opportunities. We are also focused on expanding our network with new and emerging partners, with an emphasis on partners serving marginalised and vulnerable communities.



#### **Our Strategic Initiatives - Together**

- Strengthen relationships with our key partners including SA Health and the Local Health Networks, the South Australian Health and Medical Research Institute (SAHMRI), Adelaide Health Innovation Partnership (AHIP), and Primary Health Networks through all channels to create new opportunities for collaboration
- Strengthen the Robinson Research Institute to take advantage of the construction of a new Women's and Children's Hospital and the development of state-wide research capacity in reproductive, child and adolescent health
- Grow our capability and level of engagement with health and medical precincts to strengthen our impact in regional and remote communities

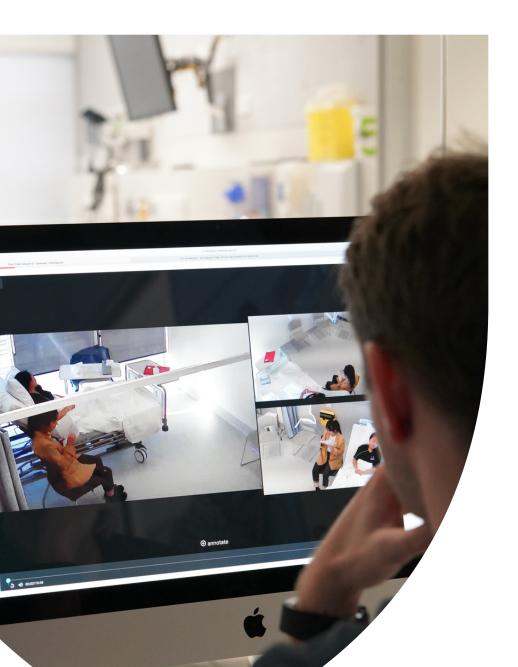
- Engage and support new state and precinct wide initiatives including the Bragg Comprehensive Cancer Centre and National Comprehensive Cancer Network to capitalise on new opportunities to contribute to the state
- Build new opportunities with SA
   Health and local and national NGOs to
   meaningfully partner in research and
   development that align to new MRFF
   funding opportunities
- Engage across the wider Adelaide and South Australian community to identify new ways that we can support our stakeholders and partners and drive better outcomes for all.



# Enabling research excellence

Identify critical research infrastructure needs and opportunities.

The Faculty of Health and Medical Sciences is committed to building and investing in the research infrastructure, tools, and technologies that will enable our priority areas of focus.



To produce research with global relevance, our researchers require the equipment and spaces to enhance their unique research now and into the future. With our researchers, staff, and partners, we will identify the research enablers needed to unlock opportunities for our people and develop the next generation of health and medical researchers.

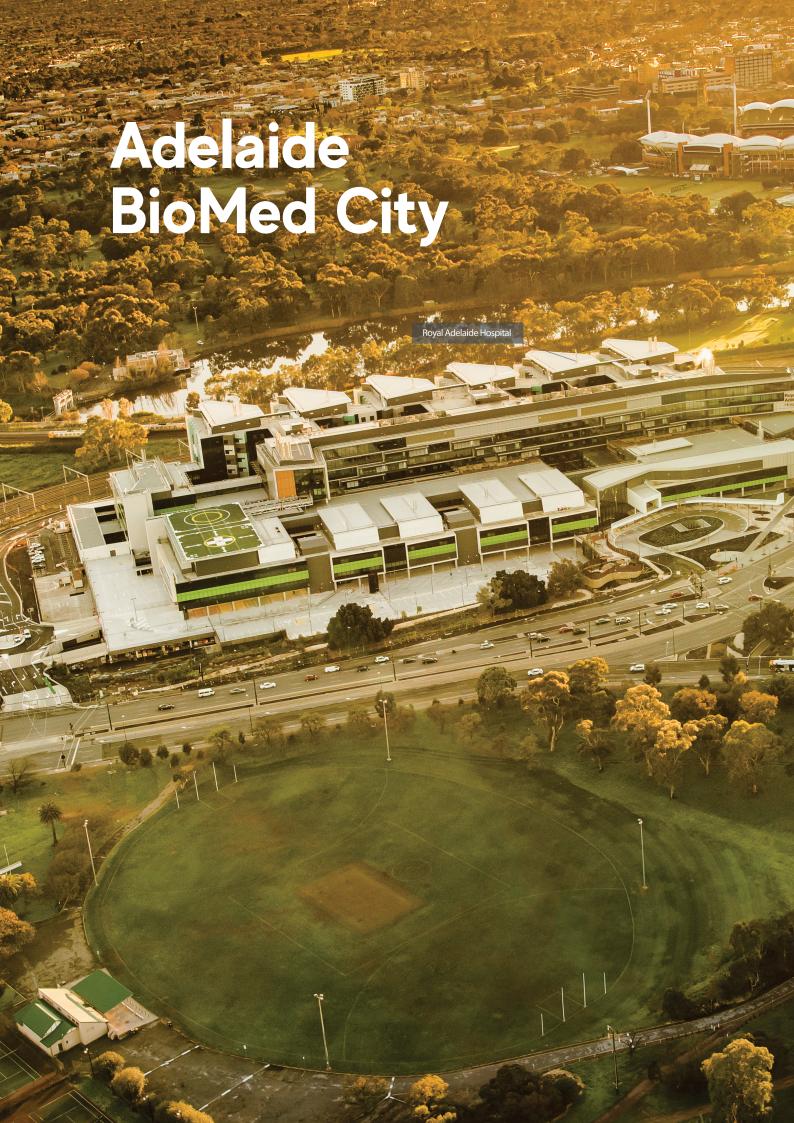




#### Our Strategic Initiatives - Enabling research excellence

- Invest in critical research infrastructure including Data Repositories, Data Registries and Biobanks to enable and improve the quality of our research information
- Establish new partnerships and operating models for clinical research facilities that will support our research to conduct commercial clinical trials and deliver high quality care for study participants
- Complement critical research capabilities such as the Adelaide Centre for Epigenetics (ACE) with upgraded and new technologies to enable research capability including high throughput screening
- Support the next generation of drug development by expanding our therapeutic drug screening capabilities

- Consolidate and leverage our core facilities across the North Terrace Precinct, creating an environment where researchers can collaborate and innovate
- Strengthen our collaboration and partnership with the Australian Institute for Machine Learning (AIML) to explore how advanced machine learning techniques can assist in diagnosis, treatment planning and monitoring of a patient's response to treatment.





#### Further enquiries

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#### Kaurna acknowledgement

We acknowledge and pay our respects to the Kaurna people, the original custodians of the Adelaide Plains and the land on which the University of Adelaide's campuses at North Terrace, Waite, and Roseworthy are built. We acknowledge the deep feelings of attachment and relationship of the Kaurna people to country and we respect and value their past, present and ongoing connection to the land and cultural beliefs. The University continues to develop respectful and reciprocal relationships with all Indigenous peoples in Australia, and with other Indigenous peoples throughout the world.