



Health
South Western Sydney
Local Health District



Ingham Institute
Applied Medical Research



UNSW
SYDNEY

WESTERN SYDNEY
UNIVERSITY



MACARTHUR MEDICAL RESEARCH CENTRE



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MESSAGE FROM THE CHIEF EXECUTIVE



South western Sydney is at the centre of growth and redevelopment with major hospital upgrades underway and plans for a new airport and train network, educational institutions, business and residential developments across our region. All of this brings opportunity, and I am excited about our collaboration with Western Sydney University and research partners as we transform Campbelltown Hospital into a world-class research precinct.

The new Macarthur Medical Research Centre will build upon our strengths in health and medical research, with optimal linkages between health, education and research.

Due for completion in 2022, the NSW Government investment of \$632 million for the new state-of-the-art tertiary hospital at Campbelltown, will see the integration of a range of adult and children's clinical services. The new hospital will also provide first-rate training grounds for our next generation of researchers and access to modern facilities to care for more complex health conditions.

Research at the Campbelltown Health Precinct will focus on preventative health in the community consistent with the health needs of the community, with research themes including diabetes, mental health and paediatrics.

I am inviting you to join us in this exciting opportunity.

AMANDA LARKIN
THE CHIEF EXECUTIVE
SOUTH WESTERN SYDNEY LOCAL HEALTH DISTRICT

MESSAGE FROM THE VICE-CHANCELLOR AND PRESIDENT



Western Sydney University lies within one of the most dynamic and fast-growing regions in Australia. I am delighted to be partering with the South Western Sydney Local Health District, NSW Government, UNSW and Ingham Institute to embed research at the core of the transformation of medical services in the Macarthur region.

The Macarthur Clinical School was established in 2007 and since inception has had a strong relationship with Campbelltown Hospital. Its clinical school has accommodated an increased number of medical students to meet the workforce growth and increased need for clinical placement in south western Sydney.

Our research is focused on shaping generational challenges in healthcare through our 10-year plan to tackle issues to do with ageing, midwifery, maternal and child health; mental health and wellbeing; and health innovation.

Research is integral to what we do at Western Sydney University and the Macarthur Medical Research Centre will foster productive partnerships with a unique depth and breadth of research and clinical expertise to address the major health and medical issues in the region.

We are able to offer research funders the capacity to conduct high quality clinical and public health research in a collaborative and innovative environment.

PROFESSOR BARNEY GLOVER AO
VICE-CHANCELLOR AND PRESIDENT
WESTERN SYDNEY UNIVERSITY

FOREWORD

Strong medical research capability is a fundamental component of a high-quality healthcare system. It ensures excellence in clinical care via a culture of research and evidence-based medicine.

INTRODUCTION

The Macarthur Medical Research Centre (MMRC) is a consortium of five health, education and research entities in south western Sydney.

OUR VISION

Our vision is for an integrated hospital and research precinct delivering world-class research and improved health outcomes for the Macarthur region and wider community.

OUR PLAN

Our Plan is to establish a co-located medical research centre that will facilitate scientific, clinical and industry collaboration whilst providing a bench-to-bedside approach enabling greater translation of research from medical discovery to the development of new prevention strategies, diagnostics and more effective treatments.

PARTNERSHIP OPPORTUNITIES

South western Sydney is one of the most rapidly growing regions in Australia, with an estimated increase in population of 48 per cent, by 2036, when it will be home to more than 1.5 million people. This means that one in three new NSW residents will reside in the

south west. This growth rate has necessitated the upgrade of the Campbelltown Hospital to a state-of-the-art tertiary teaching hospital and this will become the new home for the Macarthur Medical Research Centre.

The Campbelltown Health Precinct will comprise of health, education and research facilities that will improve economic growth and link to key business sector partners in the broader south western Sydney Region.

The future of research is one of networking. This will allow a broader reach out to our partners on a national and global level, enhancing research and clinical expertise in the region.

The Macarthur Medical Research Centre is a key component of our Plan to establish a network of research facilities across south western Sydney. With initial facilities located at Campbelltown and Liverpool, the future sites will be strategically aligned to recognise our vision of an integrated model. This will enable efficiencies to be gained through the sharing of resources, technology and scientific platforms.

CONTACTS



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MAJOR PARTNERS

INVESTMENT

WESTERN SYDNEY UNIVERSITY



Western Sydney University

Western Sydney University is a world-class university with an international reach and an enviable reputation for academic excellence and impact-driven research. Emboldened by a belief in remaining agile to best serve its community, the University is located in the heart of Western Sydney, one of the most dynamic areas in the country. It is ideally placed to give students global perspective and opportunity by working closely with the community.



Health South Western Sydney Local Health District

South Western Sydney Local Health District

The South Western Sydney Local Health District's vision is to provide a healthcare service that is patient focused, equitable and responsive to the changing and developing needs of the local community. This commitment is reflected by the NSW Government's expansion of health services and major investment in health infrastructure in the Macarthur region, focused on Campbelltown Hospital.



Ingham Institute Applied Medical Research

Ingham Institute

The Ingham Institute is a world-class medical research organisation, rooted in and driven by the needs of the local south western Sydney community. Through applied medical research and partnerships with local universities, hospitals and the local healthcare community; the Ingham Institute is working to radically transform health outcomes and redefine the treatment and care of people living with common medical conditions and diseases.



UNSW SYDNEY

UNSW Sydney

Driven by innovation and excellence, the University of New South Wales ranks among Australia's leaders in medical education and research. Medical programs reflect the changing patterns of health and disease, changing community expectations in medical practice, focusing on the expansion of knowledge in biomedical and social sciences, and information technology.

"The Macarthur region is poised to play a leading role in the development of the Western Parkland City. Campbelltown is the southern gateway to Sydney."



Image: Re-Imagining Campbelltown CBD Draft Report, June 2018, Courtesy Campbelltown City Council

ABORIGINAL & TORRES STRAIT ISLANDER COMMUNITIES



Tharawal
Aboriginal
Corporation

The partners have a strong history of working together to deliver outstanding research and health outcomes for the south western Sydney community. The Sydney Partnership for Health, Education, Research & Enterprise (SPHERE) brings together clinical and research professionals to address the health problems confronting the region and provides a strong model for collaboration at the Macarthur Medical Research Centre.

thesphere.com.au/initiatives/clinical-academic-groups

thesphere.com.au/partners-and-collaborators

COMMUNITY NETWORKS



South Western Sydney
Primary Health Network

RESEARCH COLLABORATORS



AN INTEGRATED RESEARCH PRECINCT

LOCAL STRATEGY

At the centre of the Macarthur region is the City of Campbelltown, a diverse and growing area which needs to be scalable to transform into a city designed for ambition, innovation and opportunity with a strong emphasis on health and technologies.

With an already established health, education and research focus, Campbelltown Hospital is ready for the Macarthur Medical Research Centre to be intersectional in connecting people, places and practices at multiple levels across the health, education and science sectors.

REGIONAL RELATIONSHIPS

At the regional level we are one of six nodes for future growth within the Greater Sydney region. Thus, this will be the major research centre supporting a city of over 530,000 residents with facilities that will help to attract and retain high-quality staff, researchers and students promoting the translation of knowledge into practice.

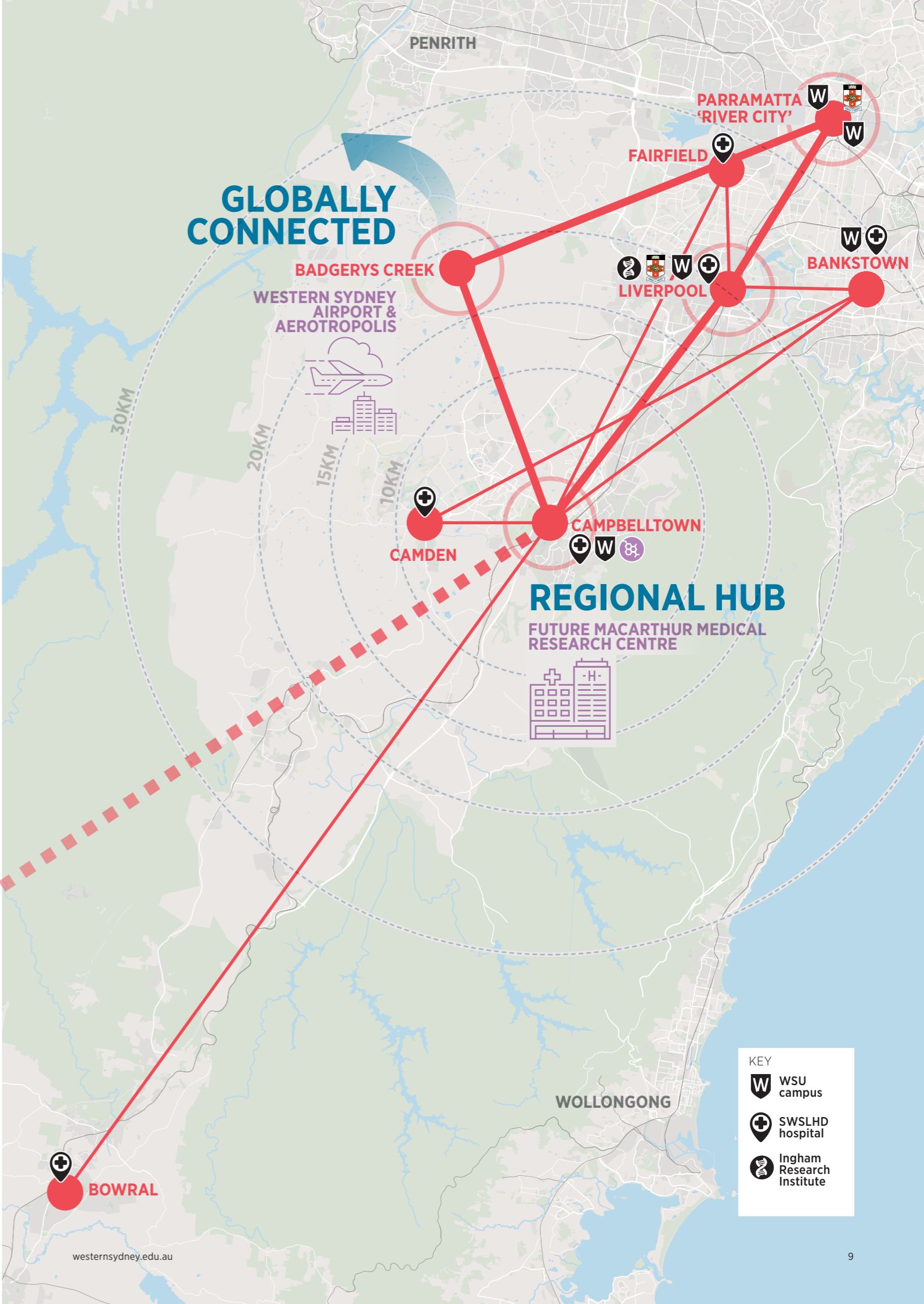
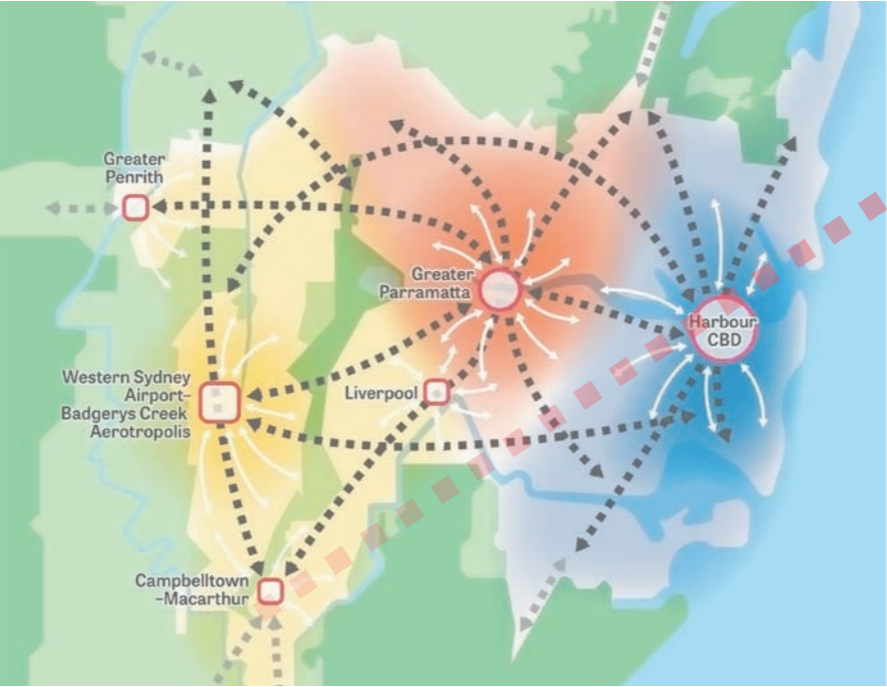
We can hone our ability to innovate through our collaborative and supportive links to other hospitals, education partners and institutes. These include the South Western Sydney Hospitals, Western Sydney University campuses, and the Ingham Institute for Applied Medical Research in Liverpool. Innovation will also be encouraged by attracting complementary industries including start-up incubators, biotech firms and pharmaceutical companies.

GLOBALLY CONNECTED

The region is already globally competitive in a number of sectors. Importantly, the Macarthur Medical Research Centre will support collaborations with international researchers and communities of practice, providing additional benefits in the context of the coming Western Sydney Airport. It will also be critical in amplifying the Western Sydney City Deal's Health theme as a Western Parkland City specialisation.

The importance of health precincts to a burgeoning region cannot be understated. In addition to delivering critical health services, this will be a hub for collaboration in medical research, and a catalyst for social impact; health precincts carry the capacity to be a driver of investment, jobs growth, and urban revitalisation.

Greater Sydney Commission – A Metropolis of three cities



LOCALLY FOCUSSED

LOCAL PRECINCT

The Campbelltown Health Precinct is located within the South Western Sydney Local Health District comprising of major hospitals and a wide range of community health facilities.

The health service delivers care to over 970,000 people currently living in south western Sydney. The Campbelltown Health Precinct will host biomedical, clinical and population health research, and has a range of established research programs with an international reputation for its world-class research in cancer, diabetes, paediatrics, addiction medicine and mental health.

These research findings are being translated into improved patient care. The health service's key objective is to have a world-class integrated network of public health facilities. These would be supported by the latest technological solutions to provide health care in a safe, and timely manner, testing optimal clinical practice innovations of direct relevance to, and impact on, the region.

Complementary to the health setting is the Macarthur Clinical School, the school brings together expert medical teachers and

newly renovated clinical training facilities to create outstanding opportunities for clinical education. With only a short distance to the School of Medicine at Western Sydney University's Campbelltown campus, there are a range of Allied Health programs supporting health professionals to enhance their skills in a range of settings including hospitals, private practice, community health and in-home care.

ABORIGINAL & TORRES STRAIT ISLANDER HEALTH SUPPORT

Over 53% of the south western Sydney local health district Aboriginal population resides in the Macarthur region. We will expand on our existing partnership with the Tharawal Aboriginal Corporation, alongside its work with the Indigenous population to tackle chronic health issues. We will focus on preventative health in the community and progress on Close the Gap, which aims to improve the lives of all Aboriginal and Torres Strait Islander Australians.

This precinct presents a unique opportunity for our major investment partners, major community partners and research partners to support health and science sectors and to foster its linkages with industry to incubate research from the laboratory to proof of concept.

GLOBALLY CONNECTED



WESTERN SYDNEY UNIVERSITY, CAMPBELLTOWN

- School of Medicine
- 1,049 health students
- Digital & technological innovation
- TAFE NSW campus co-location



TRANSLATIONAL HEALTH RESEARCH INSTITUTE

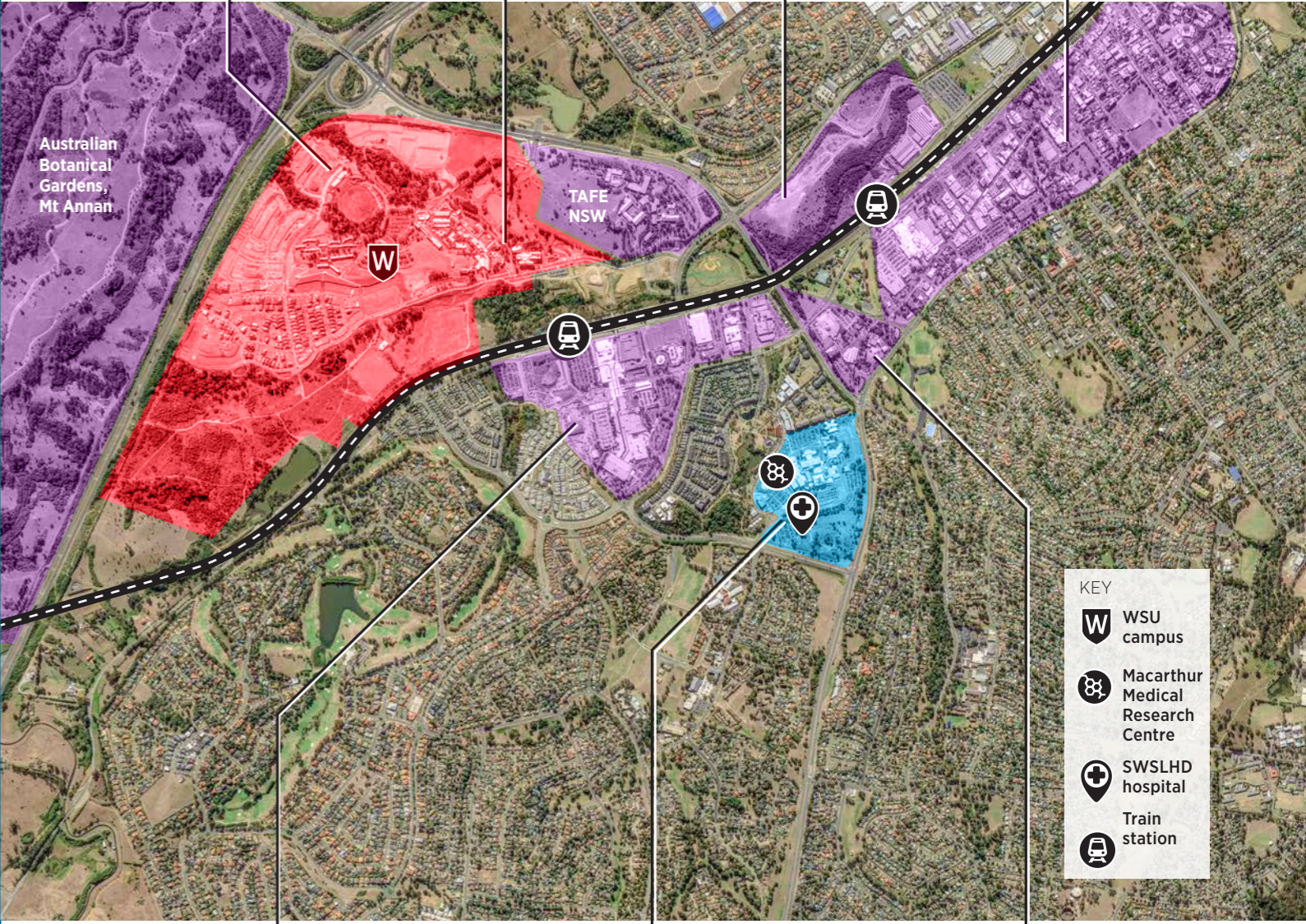


FUTURE BUSINESS PARKS



CAMPBELLTOWN CITY CENTRE

- Train station
- CBD
- Campbelltown Mall
- Future University CBD campus presence



MACARTHUR CENTRE

- Macarthur Square Shopping Centre
- Train station



CAMPBELLTOWN HOSPITAL HEALTH PRECINCT

- Campbelltown Hospital
- Macarthur Clinical School
- Macarthur Medical Research Centre
- Campbelltown Private Hospital



ARTS & CULTURE PRECINCT

- Campbelltown Arts Centre
- Campbelltown Catholic Club

CAMPBELLTOWN HOSPITAL REDEVELOPMENT

PROJECT BACKGROUND

Completed in 2015, the \$134m Stage 1 Redevelopment of Campbelltown Hospital delivered the first of two major infrastructure upgrades including:

- construction of a new multi-storey acute services building for inpatient wards, ambulatory care units, outpatient units, allied health services and pathology
- refurbishment and reconfiguration of the: maternity, paediatric outpatients, emergency department and the existing hospital buildings.

Due for completion in 2022, the Stage 2 Redevelopment will include:

- a funding investment of over \$632 million by the NSW Government for the new tertiary networked hospital and supporting infrastructure
- a new 12-storey clinical services building with modern wards and patient facilities, a bigger emergency department, and modern centrally-located mental health units
- new operating theatres, intensive care unit, women's health services, increased access to cancer, outpatient and ambulatory care services, and new nuclear medicine and dental services.

SITE MASTERPLAN

The close relationships across the precinct will be fostered and the extensive networks of collaborators will enhance the research and clinical expertise at Campbelltown and in the Macarthur region.

CLINICAL LINKAGES

There will be strong linkages between research and clinical practice with connections via covered walkways for pedestrian movement campus wide.

These linkages include:

- Aboriginal health and wellbeing including Tharawal Centre for Research
- Diabetes Centre including the Diabetes, Obesity and Metabolism Translational Research Unit (DOMTRU), academic and research centre
- Maternal Health Unit including paediatric-focussed research
- Adolescent Mental Health
- Surgical Academic and Medical Academic Units
- CORE: Clinical Trial Unit, Trial Design and Sample Management and/ or Oncology Units
- CORE: Statistics and health economics big data.

The network of community-interfaced health and research entities that will be engaged in the new research centre will include, most notably, the Tharawal Aboriginal Medical Services and the DOMTRU, both with established clinical trials and a number of translational research projects underway. These are significant partners who will be present from day one.

PRECINCT LINKAGES

The site positioning of the building will allow for a direct connection into the existing Macarthur Clinical School and Campbelltown Hospital which contains vital services such as the pathology department, clinical outpatients department and medical in-patient units. The location will facilitate a direct interface into the biggest nursing school in the country.


The Macarthur Clinical School is a specialist clinical training centre with modern education facilities, that includes:

- a 153-seat lecture theatre
- clinical skills teaching facility
- a simulation laboratory
- eight clinic/clinical trials rooms
- hospital library
- centre for education and workforce development



*Source: SWSLHD Abridged Clinical Services Plan for Macarthur to 2031


\$632m
REDEVELOPMENT

ESTIMATED POPULATION
800,000

BY 2043



MACARTHUR MEDICAL RESEARCH CENTRE

ENHANCED
RESEARCH
TRAINING
OPPORTUNITIES



IMPACTFUL
RESEARCH



INNOVATION
CREATIVITY



INFORMAL
COLLABORATION



Artist's impression – Main Entry

MAKING PROCESSES VISIBLE

“THE MACARTHUR MEDICAL RESEARCH CENTRE, LOCATED ON THE CAMPBELLTOWN HOSPITAL SITE, PROVIDES A UNIQUE OPPORTUNITY TO HARNESS SYNERGIES BETWEEN HEALTH, EDUCATION AND RESEARCH. THIS PRECINCT IS ENVISAGED TO BE HIGHLY COLLABORATIVE, OPEN AND FLEXIBLE. LOCATED ON THE SITE BOUNDARY, OVERLOOKING MARSDEN PARK, THE CREATION OF NEW PUBLIC LINKAGES INVITES THE COMMUNITY TO ENGAGE WITH THE CENTRE’S ACTIVITIES. THE ARCHITECTURAL FORM, SCALE AND FACADE TREATMENT, IS DERIVED FROM A MOBIUS BAND, AN ENDLESS LOOP, CREATING A VISUAL EXPRESSION OF THE INFINITE POSSIBILITIES OF THE PROCESSES OCCURRING WITHIN.”

ARCHITECTURAL STATEMENT



RESEARCH-LED
EVIDENCE
BASED

MORE THAN
2,000 COMBINED
WORKFORCE



ANNUAL
GRANT
FUNDING

COMMUNITY
FUNDING
SUPPORT



MACARTHUR MEDICAL RESEARCH CENTRE OUR RESEARCH FOCUS



DIABETES



MENTAL
HEALTH



PAEDIATRICS

Through the integration of health, education and research we will strive to make a positive impact on people's health in our community. The Macarthur Research Centre will have a focus on diabetes, mental health and paediatric research themes. Its excellence in research will be recognised and attract the best researchers. This will provide the cutting edge scientific skill and technology base for the introduction of new diagnostics, treatment and prevention methods, which holds the promise of significant health and economic benefits for NSW.

The research focus will be on the burgeoning health issues facing the residents of the south western Sydney catchment including specialties such as diabetes, mental health, addiction medicine, paediatrics and cancer.

The new facility will be designed, built and operated in a manner that recognises its ultimate role in improving human health and wellbeing through applied research.

To that extent the creativity and productivity of individuals must be enabled by the built environment.

Supporting a wide range of far-reaching clinical trials across a broad spectrum of population needs, the aspirations for the centre is to create the entrance to a world of research expansion that is enabled by the population of the Macarthur region.

The Macarthur Medical Research Centre will build on strong, demonstrated models of collaboration in Western Sydney. The Translational Health Research Institute is an outstanding multi-disciplinary cluster integrating and translating research into best practice and policy to address the region's unique challenges.

westernsydney.edu.au/thri/about_us



LEADER IN WOMEN'S HEALTH RESEARCH

Distinguished Professor Annemarie Hennessy AM is the Dean of the School of Medicine at Western Sydney University and currently holds the position of Foundation Professor of Medicine. She is an active obstetric and renal physician based at Campbelltown Hospital. Annemarie has a research interest in high blood pressure in pregnancy and has active research collaborations with Universities and hospitals in Sydney, Sweden and the United States.

Annemarie and her team, including Angela Makris at Liverpool Hospital, have produced seminal work in the causes and treatments of Australia's most common complications of pregnancy. Together they have raised \$4 million in research funds for the South Western Sydney Local Health District in the last 12 months. Their recent paper in Nature Biotechnology is a game changer in the area.



IMPACTFUL RESEARCH IN DIABETES

Distinguished Professor David Simmons is the Professor of Medicine at the Western Sydney University Macarthur Clinical School. His work in diabetes and obesity research has had far-reaching impact on the care of millions of people living in multi-ethnic communities and he is perfect for our community, reaching out and creating impact. He has led worldwide change in the community focus of improving care for people with diabetes away from hospital settings. In his esteemed career in the area of diabetes and obesity research, he has published over 300 refereed journal articles, and 50 other publications, and worked with the World Health Organisation and other global organisations.

He has established the Diabetes, Obesity and Metabolism Translational Research Unit at Western Sydney University, with a focus on the prevention of obesity and diabetes, and the mechanisms behind the causes and development of obesity and diabetes and their complications.

EMINENT RESEARCHERS LEADING IMPACTFUL RESEARCH

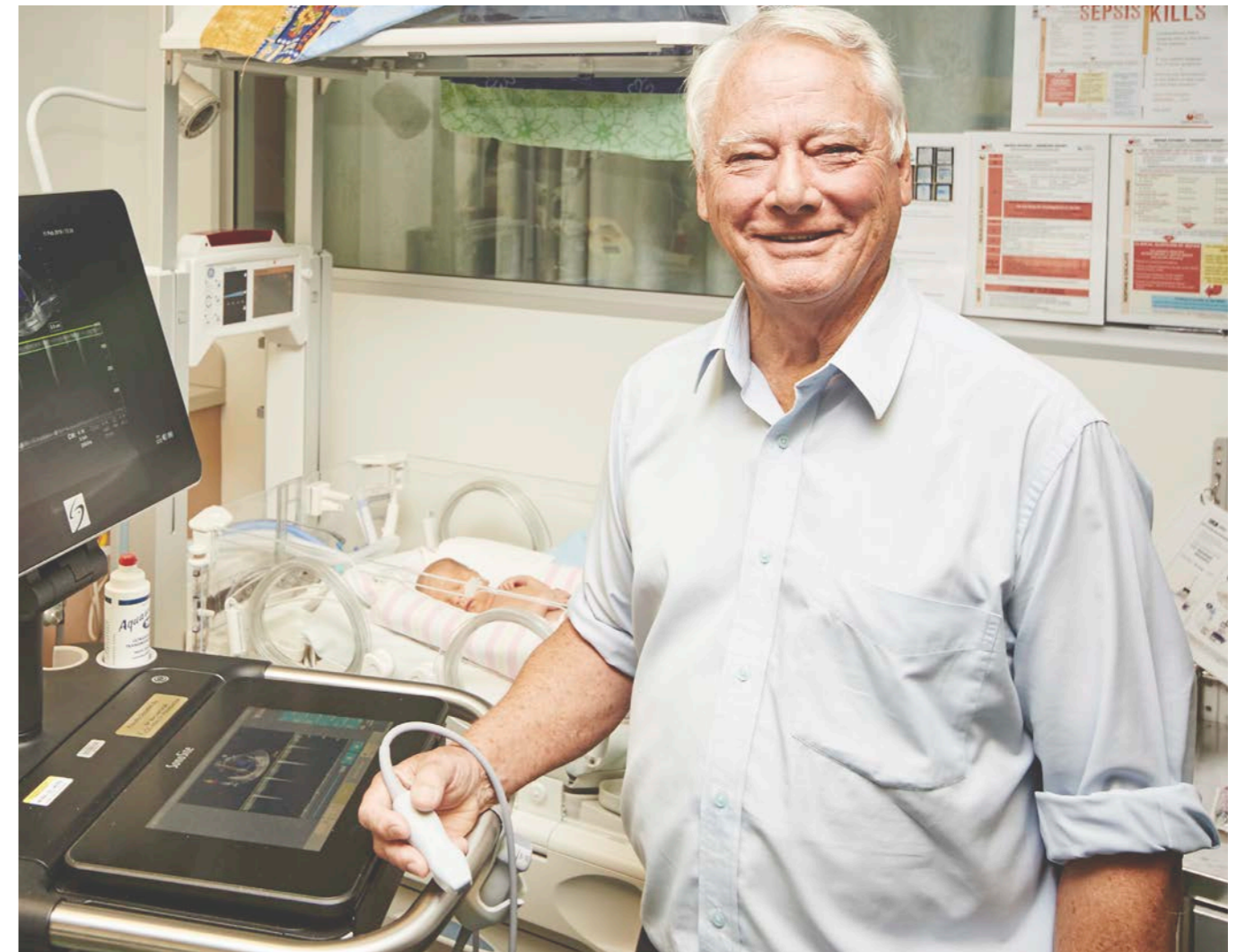
The Macarthur Medical Research Centre will foster the already recognised research programs underway in the precinct and attract the best and brightest minds in the field to this place of opportunity, where there are no constraints on tackling the health issues of today and improving health outcomes for the future.



A NEW PARADIGM IN EATING, BODY IMAGE AND WEIGHT DISORDERS

Professor Phillipa Hay is an academic psychiatrist, recognised internationally for her expertise in reducing the personal and public health burden of eating disorders. She has published extensively in leading international medical journals including the British Medical Journal and Cochrane Collaboration. She has also co-authored books and won several significant awards, both nationally and internationally.

Her work cuts across psychology, medicine and public health disciplines. This has resulted in major changes to public policy and the impact on people's lives. Her contributions in clinical work includes the care of people in hospitals with eating disorders, and in the community and medical clinics. Phillipa has attracted funding from Australia and also international grant bodies and is part of several major trials being undertaken in the United Kingdom, United States and Brazil.



GLOBAL REACH COMMUNITY PROGRAMS IN PAEDIATRIC CARE

Professor John Whitehall is the Professor of Paediatrics at Western Sydney University. His career has focused on neonatology including ante-natal diagnosis, resuscitation, management and transportation of premature, dysmorphic and sick neonates.

In recent years, he has worked as a consultant physician in Papua New Guinea, Sri Lanka and Madagascar. Currently, he teaches, leads research and has duties in general paediatrics. Professor Whitehall's research interests include the study of outcomes of babies from mothers with diabetes and other health issues, as well as helping babies to breathe through a low cost ventilatory system designed to support newborns and children in developing countries.

WORLD-CLASS FACILITIES INNOVATIVE DESIGN

The new architecturally designed centre will boast excellence in design with the flexibility to cater for a variety of uses within the building including wet laboratory research, dry laboratory research and specialised scientific platforms. The centre will cover a total gross floor area of 6,000sqm distributed across four levels whilst maintaining the opportunity to expand by providing additional floors above.

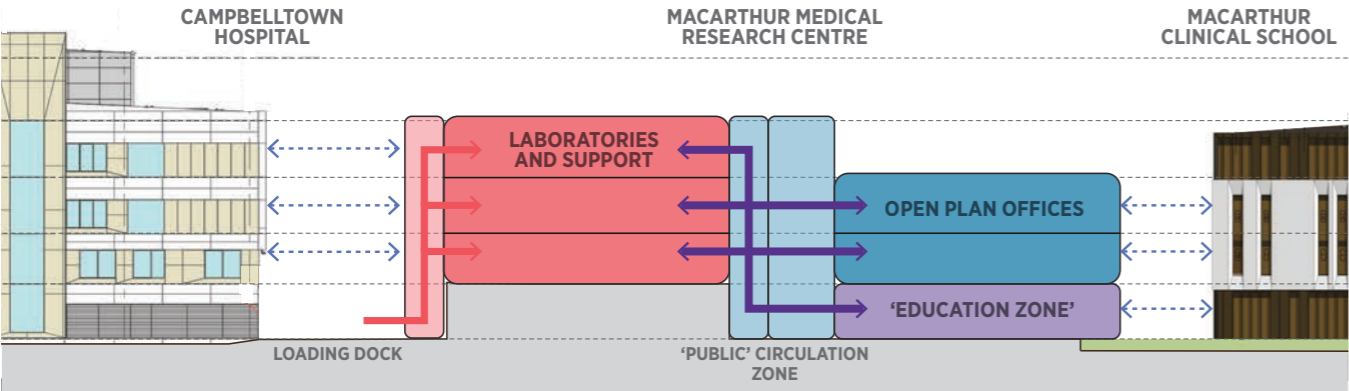
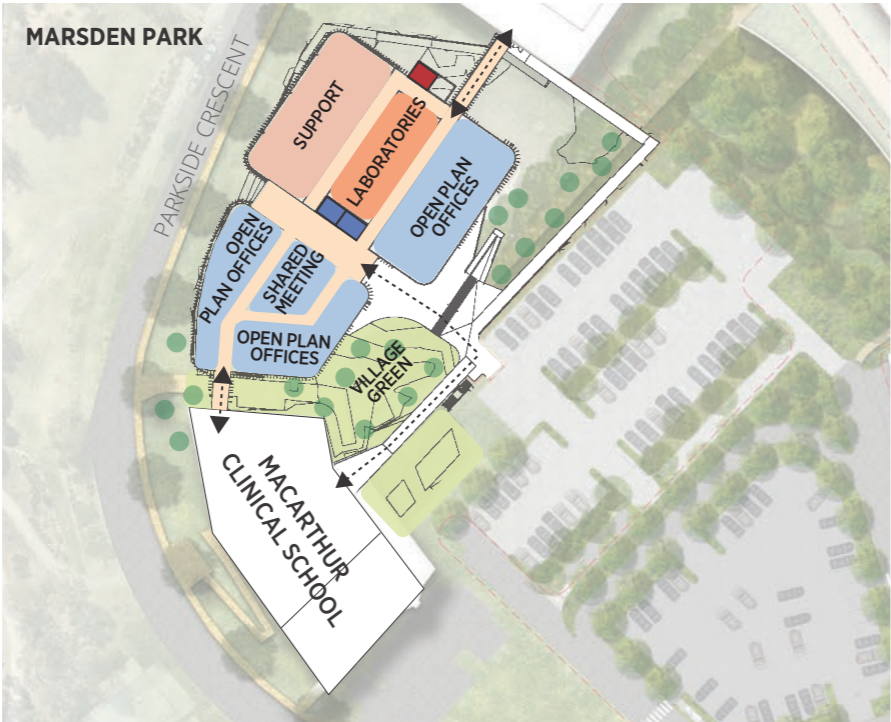
Users can enjoy the open design that fosters collaborative relationships with other researchers in the field.

The overall intent of the centre is to provide:

- a design that is contemporary, innovative and impactful to its occupants
- symbolic resonance - the opportunities to express the work of the medical researchers through architectural interventions reflected in both the building's form and function
- Openness - the facility must be inviting, transparent and legible to the public, visitors, research subjects and patients.

The Macarthur Medical Research Centre will be an enduring legacy – a distinctive building, with views across to Marsden Park. The frontage onto Parkside Crescent will activate the pedestrian zone between the existing university and adjacent commercial zone providing connectivity through to adjacent buildings on campus.

The Centre will integrate research-led education with world-class teaching infrastructure and research facilities that will promote an open design to foster collaborative relationships with clinicians, researchers and students.



Artist's impression – Main Entry in the Evening



Artist's impression – View from Parkside Crescent



Artist's impression – View from Parkside Crescent in the evening

OUR VISION

Artist's impression – View from Parkside Crescent



YOUR OPPORTUNITY

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