New South Wales, Australia

Brilliant research. Impactful innovation. Excellent health and care for all.

NSW GOVERNMENT

Contents

Acknowledgement

NSW Government acknowledges the Traditional Custodians of the lands where we work and live.

We celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW. We pay our respects to Elders past, present and emerging and acknowledge the Aboriginal and Torres Strait Islander people that contributed to the development of this resource.

'Building strong relationships for Aboriginal health research and innovation in NSW'
Artist: Carissa Paglino

Foreword from the Minister for Health and Regional Health

As the NSW Minister for Health and Regional Health, I am committed to ensuring that our health system delivers the outcomes that matter most to patients, and communities across the state. The state's thriving life sciences sector is central to this goal, playing a vital role in improving health outcomes, driving innovation in care and securing a healthier future for the people of NSW.

NSW is internationally recognised for the quality of its healthcare system and its strong connection to research and education. Our hospitals, clinicians and specialist health networks are at the forefront of applying research discoveries to improve lives — from early diagnosis and precision medicine to integrated digital health solutions.

To deliver high-quality, world-class care, the NSW Government invests heavily in health and medical research because advances in research not only provide patients with better treatments, but also improve the way health services are delivered.

In addition to an annual NSW Health operating budget of over A$35 billion, we are bolstering research and development capabilities with:

- A$150 million to develop the Sydney Biomedical Accelerator,
- A$134.5 million to build one of the first GMP-grade clinical and commercial viral vector manufacturing facilities in the South-East Asia Pacific region, and
- A$95.8 million for an RNA (ribonucleic acid) research and pilot GMP manufacturing facility, along with A$119 million to support RNA research and development.

This prospectus highlights NSW's world-class capabilities in health and medical research and provides information to facilitate new international investment and partnering opportunities.

The NSW Government remains committed to supporting our health system to evolve with the needs of patients and professionals alike. Our partnerships with international research institutions, health investors and innovators are vital to this journey.

I welcome you to explore, partner and do business with our outstanding health and medical research sector.

The Hon. Ryan John Park MP
Minister for Health
Minister for Regional Health

Foreword from the Minister for Medical Research

The NSW Government is proud of its ongoing investment in advancing discovery, accelerating translation, and fostering collaboration across our thriving health and medical research ecosystem.

In May 2025, I launched the ***NSW Health Medical Research and Innovation Strategy 2025-2030***, a bold new roadmap that strengthens our vision to harness research and innovation to deliver improvements in health outcomes. Collaboration is at the heart of the strategy. We will foster multidisciplinary partnerships, partner to Close the Gap in Aboriginal health, and ensure that women's health is a priority in medical research.

This strategy builds on our core strengths and charts the path for deeper global collaboration, enhanced commercialisation pathways, and embedding innovation into clinical care. It also recognises the importance of agile and equitable access to research infrastructure and talent, and provides a foundation for coordinated research efforts across our state.

NSW is home to a unique network of Health and Innovation Precincts — strategically positioned hubs of excellence across metropolitan and regional areas that unite government, universities, medical research institutes, health services, and industry. These precincts foster multidisciplinary partnerships and enable seamless translation of research from bench to bedside and into the system.

Our research-intensive clinical environment, along with our specialist training programs, have supported local researchers to become leading experts in genomics and precision therapeutics, RNA, viral vector engineering, as well as oncology, neuroscience, cardiovascular medicine, infectious diseases, and medical devices.

Our researchers are also pioneering the use of non-animal research models to increase efficiency and ethical standards in drug development. Combined with our integrated clinical trials system and streamlined governance processes, NSW offers an ideal environment for conducting world-class clinical trials.

Our dedicated, free **Health Research and Innovation Navigator** service is available to connect you with the right partners across the NSW health and medical research ecosystem.

Whether you're looking to invest, collaborate, or innovate, we welcome your partnership in shaping the future of global health here in NSW.

Contact us:
MOH-InternationalDesk@health.nsw.gov.au

The Hon. David Harris MP
Minister for Medical Research

New South Wales, Australia: generating breakthroughs in healthcare

With Australia's largest population, strongest economy, and innovative life sciences sector, New South Wales (NSW) is home to an integrated, world-class health and medical research sector that is solving some of the world's most complex and burdensome healthcare challenges.

An economic powerhouse in the Asia-Pacific region

At almost A$780 billion dollars, New South Wales is Australia's largest state economy, accounting for around a third of the nation's economic output (GSP 2022-23).

The NSW economy is larger than the individual economies of Singapore, Hong Kong and Malaysia, and the economic and political landscape is stable and secure, with a AAA (Fitch) Credit Rating.

Sydney: the gateway to Australia

The state NSW is home to Sydney, Australia's financial centre and gateway into Australia and the Asia-Pacific.

Sydney Airport has on average 364 passenger flights every day to 101 destinations in 28 countries and services 10 leading freight carriers. There are more than 70 public airports in regional NSW servicing both passenger and airfreight.

The new Western Sydney International (Nancy-Bird Walton) Airport will increase Sydney's air cargo capacity by around 33 per cent upon opening in 2026 with a 24-hour, 7 day cargo service.

More than 600 multinational companies have their regional headquarters in Sydney, and many of Australia's largest venture capital firms are headquartered here.

Sydney's time zone is global, as it spans from North America late afternoon to Europe early morning and is complementary to Asian financial markets.

A highly skilled and diverse workforce

NSW has Australia's largest population, with more than 8.3 million residents. The state's population is among the most culturally and ethnically diverse in the world. English is the most widely spoken language, but over a quarter (26.6%) of NSW residents speak a second language.

NSW has the most highly educated workforce in Australia with approximately 70% of the state's workforce having a post-school qualification. NSW is home to the highest number of STEM graduates in the country and is a top ranked start-up ecosystem in the southern hemisphere.

The state is home to Australia's largest ICT (Information and Communication Technology) industry and investment into digital infrastructure, primarily centred around the Sydney area of the 'Tech Central' precinct.

Australia has the fourth-highest proportion of educated immigrants in the OECD. Australia is ranked 8 out of 134 countries in the 2023 Global Talent Competitiveness Index.

Personalised government support for international investors

Investment NSW centralises the NSW Government's trade and investment attraction activities, providing a single point of advice and support for the private sector.

Its role is to reinforce NSW as the most desirable place in the world to live, visit, study, invest and do business.

It acts as a concierge for business, universities, and other institutions, partnering with different parts of government and its international network to showcase what NSW has to offer and create valuable partnerships.

Find out what Investment NSW can do for your business: investment.nsw.gov.au

A world-class, integrated health system

NSW is home to Australia's largest public health system and a globally recognised research and innovation ecosystem.

The **NSW Health Research and Innovation Strategy** provides a clear 5-year direction. Investment will be strategic, connected and inclusive. We will draw on our collective strengths to improve care, generate economic value, and accelerate translational research to deliver real outcomes for our people.

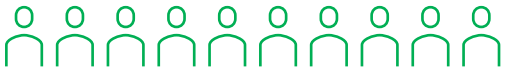
Health is a cornerstone of the NSW economy and community. More than a quarter of the NSW government's budget is invested in health, and with over 180,000 people employed across NSW Health, it represents one of the State's most powerful levers for positive change.

With 226 public hospitals, 15 local health districts and two specialty networks which are supported by Health and Innovation Precincts to operate as one connected system, NSW offers a scale and capability that is unique globally — designed to deliver system-wide adoption of innovation and amplify the impact of research at speed.

Over
A$35 billion
(Over US$22 billion)

public health system annual budget

226
public hospitals serve over 8 million people



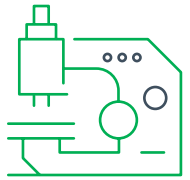
Australia ranked
2nd ★★★★★
most efficient healthcare system **in the world**

(The Commonwealth Fund, 2024)

Over
142,000
full-time equivalent staff

Over
340,085
surgeries were performed during 2023–24

Over
3 million
emergency department attendances each year



Statewide Biobank: Australia's first statewide Biobank, integrated with NSW's statewide **public pathology service**

Maximising partnerships, investment, training and research

NSW's **Health and Innovation Precincts** are at the heart of our ecosystem: dynamic intersections of medicine, science, education, and industry across both metropolitan and regional areas.

Our 10 Precincts offer researchers and industry partners access to diverse patient cohorts, deep clinical and academic expertise, and cutting-edge infrastructure with the flexibility to scale. Our Strategy will enable improved networking of place-based initiatives to harness the strength of diverse skills, specialisation, and complementarity.

The future-focused strategy prioritises better health outcomes for Aboriginal people, women, people living with rare diseases, and communities from diverse cultural and social backgrounds. NSW's vibrant, multicultural population is a key asset for inclusive, impactful research.

NSW offers partners a connected system that brings together rich data, world-class talent, and cutting-edge technology—enabling partners access to the capabilities and resources they need.

Above all, NSW is a place where government, researchers, innovators and investors work with purpose and unity. Whether you're looking to invest, collaborate or drive global health impact — **NSW is your gateway to opportunity, impact and innovation.**

Diversity

286 Languages

spoken, with **a third** of our population born overseas

Two of the world's top 20 **universities**

(QS 2024)

NSW is home to

55% of Australia's life sciences companies and

44% of its start-ups

7th **in the world** for health sciences research reflecting global excellence in medical innovation and collaboration *(Nature, 2023)*

10 year NSW Health Research and Innovation Strategy

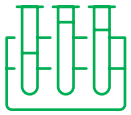
See pages 20 to 36 for information about NSW's leading Health and Innovation Precincts.

NSW government programs investing in medical research

Through strategic investment, the NSW Government supports the translation of globally recognised research into real-world therapies and clinical applications at home and abroad.

NSW Health has a dedicated Office for Health and Medical Research that supports research, translation and commercialisation through a range of programs:

A$150 million over 10 years through the **Cardiovascular Research Capacity Program** for grants to build **cardiovascular research capacity in NSW** and make NSW a global leader in cardiovascular research through the Cardiovascular Research Capacity Program.



Early-Mid Career Grant Program which provides over **A$24 million** to support **57 early-mid career researchers** to take their career to the next stage, with a return on investment of $7 for every dollar spent.

Translational Research Grants Scheme which builds research capability and accelerates evidence translation within the NSW health system to improve public health. A total of **A$45 million** has been awarded through seven rounds of the Translational Research Grants Scheme.

Medical Devices Fund which is a seed funding program for new-to-world medical devices. Over the past decade, the Fund has awarded **A$92 million** to 48 medical devices. Recipients of the Fund have since raised significant capital funding, treated patients in NSW and abroad and contributed to employment in NSW and internationally by creating additional jobs.

Commercialisation Training Program which develops the commercialisation skills of innovators in medical devices, diagnostics, therapeutics, and software as a medical device. Since 2014, graduates of the program have raised more than **A$152 million** in private and public funds. Graduates have gone on to successfully incorporate new companies, commence clinical trials, pilot technologies, enter new markets and create new jobs across the globe.

Health Research and Innovation Navigator, a free service to connect companies and researchers with experts, clinical networks, and research infrastructure.

Contact us: MOH-InternationalDesk@health.nsw.gov.au

Next-generation clinical trials

NSW is a premier destination for high-quality, efficient and cost-effective clinical trials.

NSW has a reputation as a globally competitive destination for clinical trials; particularly in early-phase trials.

NSW is the nation's leader with

31%

of **national trial activity**

43.5%

federal R&D **tax incentives**

Governance and ethics structures enable clinical trials to start-up quickly. On average, NSW clinical trials have ethics approved and contracts signed within 90 days of application. Specialist ethics reviews of early phase trials enable approvals in just 20 days.

A **43.5% R&D tax incentive** positions NSW as a cost-effective destination to conduct clinical trials, even for biotech companies based overseas.

NSW is home to one third of Australia's population, projected to grow to over 10 million by 2043. With one third of the NSW population born overseas and over 50 percent with at least one parent born overseas, NSW benefits from an ethnically and culturally diverse population. Clinical trials can access the entire NSW public health system with one nationally recognised ethics application.

NSW has world class infrastructure with the largest number of hospitals and medical research institutes in the country, enabling a comprehensive and integrated system. This includes physical and virtual assets and a skilled workforce networked within a culture of innovation.

NSW has a statewide Clinical Trial Management System for public hospitals and healthcare services that supports central oversight and efficient delivery.

The case studies on the subsequent pages show how Australia is leading the way and improving outcomes with precision approaches in oncology settings.

Rural Regional and Remote Clinical Trial Enabling Program

The NSW, Australian Capital Territory, and Australian governments are working together to improve regional and rural communities' access to clinical trials. NSW Health and ACT Health, through the Office for Health and Medical Research, were awarded A$30.6 million over five years from the Commonwealth Medical Research Future Fund (MRFF) Rural, Regional, and Remote Clinical Trial Enabling Infrastructure (RRRCTEI) grant opportunity.

The program is funding infrastructure initiatives to address the barriers to research in rural areas, increasing opportunities for national and international clinical trials. In April 2024, three locally led Clinical Trial Support Units (CTSUs) commenced operations serving all areas in regional NSW to provide opportunities for growing populations outside greater metropolitan Sydney. In the period to 31 December 2024, the CTSUs have helped establish:

62 **new** or **improved** clinical trial sites

initiate 98 **new** clinical trials

and recruit 666 **participants** in their communities

Clinical Trials Connect: personalised support for clinical trials

NSW Health offers a free, personalised concierge service to stand up clinical trials in NSW and extending into other states of Australia. Clinical Trials Connect assists industry, clinicians and researchers to establish clinical trials by:

- Linking trial investigators to research projects and engaging key opinion leaders
- Identifying potential patient populations
- Nominating contract research organisations from the state's large, competitive sector with specialist skills in managing domestic and international trials
- Targeting clinical and industry therapeutic experts to stand up international trials
- Finding specialist trial support services including clinical laboratory support, biostatistics, health economics and regulatory insights.

Contact

clinicaltrialsNSW@health.nsw.gov.au to run a high quality, fast, and cost competitive trial in NSW.

CASE STUDY

ZERO: global leadership in paediatric cancer research and precision medicine

Established in 1976, Children's Cancer Institute (CCI) is Australia's only independent medical research institute solely dedicated to curing childhood cancer.

Internationally recognised for its expertise in translational research and precision medicine, the Institute spans the full research continuum—from basic biology and drug discovery to preclinical testing, clinical translation, and the development of globally significant bioresources.

CCI co-leads the **Zero Childhood Cancer Program (ZERO) with the Kids Cancer Centre at Sydney Children's Hospital — the first and only national precision medicine program for children with cancer in Australia.** Nearly 2,500 children have been enrolled to date, with **ZERO now recognised internationally as the gold standard in paediatric precision oncology.**

The 2-year progression-free survival rate for children receiving precision guided treatment was double that of those without it and five times higher than for children on unguided novel treatments. In March 2025, the Australian Government announced $112.6 million in funding to support the program's continuation and expansion to include young people aged 19 to 25 with paediatric-type or relapsed cancers.

In collaboration with the Sydney Children's Hospitals Network and University of NSW, CCI is developing the Minderoo Children's Comprehensive Cancer Centre (MCCCC), a state-of-the-art facility opening in late 2025. Housing up to 900 researchers, clinicians, and support staff, MCCCC will serve as a global hub for innovation in childhood cancer research and care.

There is an urgent need for more drug access for children with cancer in Australia. **CCI is driving early-stage drug discovery and development and can help pharmaceutical partners generate preclinical data for paediatric development plans and, through ZERO, identify rare patient populations with specific genetic cancer drivers.**

Learn more: https://www.ccia.org.au/

CASE STUDY

PrOSPeCT: transforming cancer research through genomics and real-world data

PrOSPeCT (Precision Oncology Screening Platform Enabling Clinical Trials), Australia's largest cancer genomics initiative, is transforming access to precision oncology by offering free comprehensive genomic profiling to Australians with advanced, incurable, or poor-prognosis cancers. Patients are matched to biomarker-led clinical trials, accelerating innovation in oncology research and access to targeted therapies.

PrOSPeCT is led by Omico, a national not-for-profit organisation based in Sydney, NSW, bringing together the collective expertise of government, industry, research, clinical and community partners.

Over 23,000 Australians with advanced cancers have been referred to Omico's PrOSPeCT and MoST* initiatives, with 68.5% identified as having actionable biomarkers.

Omico supports 98 company-sponsored precision oncology trials and counting — including 16 that would not have launched in Australia without Omico's enabling infrastructure.

Omico's ambition is to shift clinical trial participation in cancer from one in ten to one in four patients within five years. *"Achieving this would deliver enormous benefits for patients, doctors, the economy, and the broader community,"* says Omico founder Professor David Thomas.

A key differentiator is Omico's powerful real-world data (RWD) platform, integrating genomic, clinical, and geographic data at scale. This enables rapid identification of eligible patients by biomarker profile and real-time mapping to geographically appropriate trial sites.

CEO Ian Black emphasises the unique value of Omico's data-driven approach: *"Across our programs, we've screened over 20,000 patients with advanced cancer and have location data for each of them. For industry partners, we can rapidly identify eligible patients meeting biomarker criteria and optimal study sites for their trials."*

Learn more: www.omico.com.au

*Molecular Screening and Therapeutics Study

CASE STUDY

ProCan® Technologies: world leading proteomics for precision oncology

ProCan Technologies delivers proteomic insights to enhance the outcomes of oncology research and clinical trials globally. Having developed world leading rapid mass spectrometry methodologies, ProCan has analysed over 29,000 clinically-annotated tumor samples in collaboration with more than 100 groups across the globe. The data comprises the world's largest database of cancer tissue proteomes generated from a single platform.

ProCan Technologies originates from eight years of research and development conducted within the Children's Medical Research Institute at Westmead in NSW, Australia, with leadership provided by a team of six board-certified medical oncologists.

It leverages a multidisciplinary team consisting of proteomics, histopathology, data science, computer engineering, and cancer biology research personnel, in addition to the medical oncologists.

In collaboration with Omico, ProCan is now adding proteomic results to many of the samples from the PrOSPeCT trial using both data independent acquisition (DIA) mass spectrometry and the recently developed TargetQuant™ antibody-drug conjugate (ADC) panel. This is a multiplexed, targeted panel that directly quantifies ADC target expression and helps identify suitable patients for ADC clinical trials.

ProCan Technologies offers both DIA mass spectrometry and the TargetQuant™ ADC panel to organisations involved in oncology clinical trials. **Our aim is to more accurately match patients to the most appropriate clinical trial and to enhance the effectiveness of precision oncology.**

Learn more: https://procantech.com/

A thriving advanced therapeutics sector

NSW is an international hub for the research, development and delivery of advanced therapeutics and transformative technologies.

NSW's researchers and clinicians are recognised globally for their expertise and cutting-edge work in:

- Gene and cell therapies
- RNA therapies
- Bacteriophage therapies
- Plasmid-based therapies
- Vaccine technologies
- Immunotherapies
- Non-animal technologies

NSW researchers and institutions provide complete therapeutic and vaccine pipelines from design, construction and testing through to small-scale production, clinical trials and patient treatment.

NSW encourages adaptive trials and is leading the global shift towards Bayesian approaches. These innovative trial designs are flexible and responsive, allowing clinicians to answer complex questions faster, personalise treatment, and to stop trials early where problems or barriers are identified.

Cutting-edge facilities in NSW support innovative research, process development, advanced manufacturing, and delivery programs.

The state's manufacturing facilities enrich our advanced therapeutics ecosystem, as well as providing Australia's tertiary training program for Good Manufacturing Practice (GMP) lab staff, setting up NSW to become a major international hub for advanced manufacturing.

The NSW Government has invested:

- **A$134.5 million** to build one of the first GMP-grade clinical and **commercial viral vector manufacturing facilities** in the Southeast Asia-Pacific region.
- **A$95.8 million** to establish an **RNA research and pilot GMP manufacturing facility**. This facility will be the first of its type in Australia and one of only a handful in the world where a range of RNA therapeutics and potential delivery technologies will be independently produced. The investment is supported by an additional **A$119 million for RNA research and development**.

The NSW Government continues to invest in workforce development, collaborative researcher, diagnostic laboratory and clinician networks, enabling infrastructure and health system readiness to fast-track access to novel therapies for our large and diverse population.

RNA Australia

RNA Australia is a joint venture and collaboration between five universities and the NSW Government to lead the development of a robust RNA R&D ecosystem in NSW.

It acts as the front door for the NSW RNA ecosystem, providing university research access to the RNA Research and Pilot Manufacturing Facility.

Key objectives of RNA Australia

- **Support** the sustainable operations of the RNA Research and Pilot Manufacturing Facility towards achieving the desired commercial RNA R&D, products and services.
- **Develop** and support R&D and commercialisation of world-leading relevant technologies and therapeutics.
- **Accelerate** RNA R&D into new commercial products, services and expertise including delivery of vaccines.
- **Target** RNA therapies in medical applications, agriculture, biosecurity and other relevant sectors.
- **Improve** access to advanced RNA technology therapies for humans and animals.
- **Boost** a strong network between universities, research organisations, industries, entrepreneurs and investors.
- **Foster** essential skills and pathways for innovation, R&D, manufacturing and commercialisation.

Opportunities

- **Access** to Open-source GMP Facility (from 2026) aimed at scaling and producing RNA therapeutics for Phase 1-3 clinical trials alongside the NSW clinical trial system.
- **Collaboration and partnership** with industry and universities including the 14 NSW and ACT universities.

Further information

rnaaustralia.com.au

Viral Vector Manufacturing Facility

An advanced therapeutics contract development and manufacturing organisation in the Asia Pacific region.

A NSW Government investment of **A$134.5 million** supports Australia's first clinical and commercial viral vector manufacturing facility, addressing global needs in cell and gene therapy development and manufacturing. Located in Sydney, the facility is integrated into the Westmead Health and Innovation Precinct. Supported by Australia's advanced clinical trial ecosystem, the Viral Vector Manufacturing Facility (VVMF) aims to accelerate the development of novel therapies for some of the most intractable and rare diseases — delivering new options to patients faster.

VVMF's vision is to become a leading advanced therapeutics Contract Development and Manufacturing Organisation in the Asia-Pacific as well as a regional catalyst for viral vector research and innovation. Producing recombinant lentiviral vectors (LV) and recombinant adeno-assisted virus vectors (AAV) for small- and large-scale clinical applications, the company will partner to provide deep technical and medical expertise from concept to clinic.

With a world-class team, the company offers vector design, process development, compliant manufacturing and analytics to exacting quality standards.

Delivering technical excellence in LV and AAV manufacturing, services include:

- Vector research and development
- Construct design and optimisation
- Process development
- Pre-clinical and clinical compliant manufacturing 5L to 500L
- Technology transfer
- Wrap around services to take advantage of the Australian ecosystem including clinical trials

Partner with us to accelerate your path to market.

Contact info@vvmf.com.au

www.vvmf.com.au

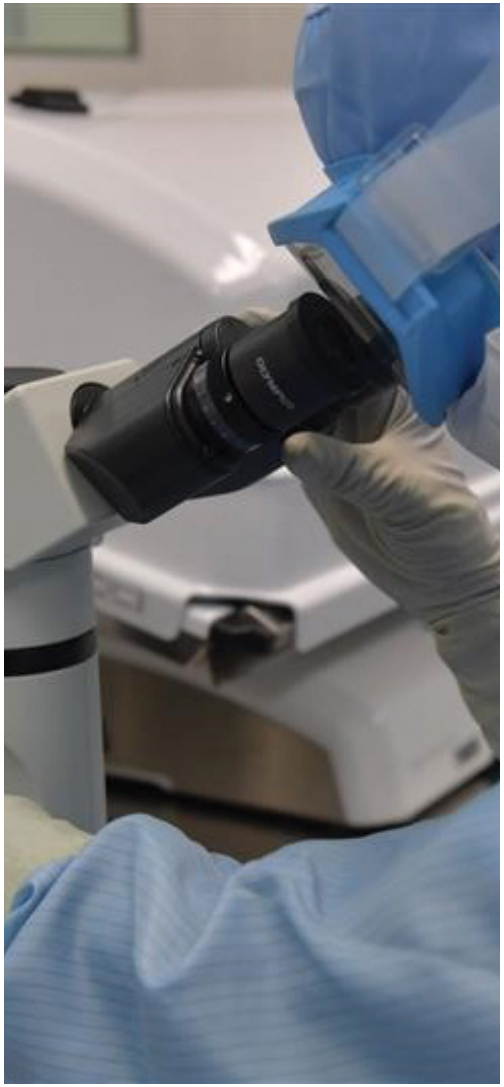
*Viral Vector Manufacturing Facility Pty Ltd is a registered independent commercial entity, with an independent Board, funded by the NSW Government.

"This is an exciting milestone for the APAC region, as we expand critical infrastructure to support the development and manufacture of advanced life-saving therapies. While serving global communities, VVMF will also strengthen supply chain independence worldwide."

Prof. Leszek Lisowski
Vectorologist and Chief Technology Officer

"VVMF provides a critical capability for moving promising gene-based therapies from the research laboratory through to clinical trials and beyond."

Prof. Ian Alexander
Gene Therapy Clinician and
Chief Medical Officer



CASE STUDY

Advanced drug delivery platforms

NSW is at the forefront of developing advanced drug delivery platforms thanks to its leading research and clinical expertise in nanotechnology to deliver chemotherapy, radiotherapy (radionuclides), vaccines, RNA and other precision therapies.

Our production and manufacturing infrastructure includes the RNA Research and Pilot Manufacturing Facility, the Viral Vector Manufacturing Facility Pty Ltd and Ab Initio Pharma Pty Ltd for pharmaceutical formulation R&D and GMP manufacturing.

Nanoparticles for siRNA inhalation

A nasally administered, aerosolised siRNA therapy encapsulated in lipid nanoparticles (LNPs) is demonstrating promising results in preclinical models as a potential universal treatment for COVID-19.

In partnership with the University of New South Wales, the RNA Institute, the Kirby Institute, the Woolcock Institute of Medical Research and Macquarie University, researchers have designed LNP-siRNA to target highly conserved regions of SARS-CoV-2, offering protection against a broad range of emerging variants. This project also marks a first for Australia, with researchers partnering with a global leader in spray nozzle technologies to allow for targeted and user-friendly delivery to the upper respiratory tract.

Nanopolymers to deliver needle-free insulin

An environmentally responsive proprietary nanomaterial has been tested successfully in non-clinical models to deliver oral insulin, resulting in dose-dependent reductions in blood glucose without causing hypoglycemia.

Arising from a collaboration between the University of Sydney and Sydney Local Health District, this novel nanopolymer formulation is sensitive to glucosidase enzymes, triggering the release of insulin only when blood glucose levels begin to rise.

The formulation of insulin-conjugated silver sulfide quantum dots coated with a chitosan/glucose polymer is also pH responsive and insoluble in acidic environments, protecting the insulin from degrading in the gastrointestinal tract and facilitating absorption to achieve reliable bioavailability.

Clinical trials are expected to start in 2025 led by the co-inventors and their spin-out company Endo Axiom Pty Ltd, while diversifying into other autoimmune and allergy indications.

Viral vectors to treat genetic blindness

Leading researchers at Children's Medical Research Institute and the University of Sydney are developing novel eye-tropic viral vector capsids to improve delivery of ocular gene therapies. Currently available ocular gene therapies cannot cross the inner membrane. In order to reach the photoreceptor and RPE cells, ocular gene therapies require subretinal injections which can only be delivered by ophthalmic surgeons and has high risk of complications, limiting clinical impact.

Eye-tropic viral vectors are being developed which can cross the inner membrane, allowing delivery of ocular gene therapies by intravitreal injection which are less invasive and can be delivered in local clinics.

The researchers involved in this collaboration are also applying their gene-editing, vectorology and retinal organoid expertise to validate these novel capsids to correct genetic errors in Usher syndrome and Stargardt disease, the two most common inherited retinal diseases in Australia.

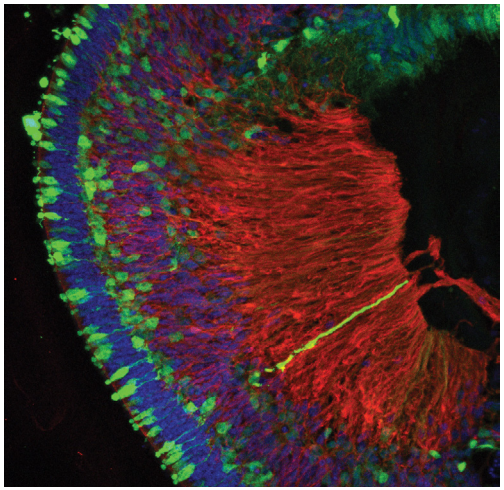


Image: AAV-M1 expressing GFP reporter in retina organoid

CASE STUDY

Non-Animal Technologies Network: NAT-Net

The NSW Government has invested A$4.5 million to establish the Non-Animal Technologies Network (NAT-Net). NAT-Net will increase coordination, address regulatory barriers and build a more cohesive and stronger sector in NSW.

It will lead coordinated action across three pillars:

1. Research

The research pillar will undertake four foundational research projects to leverage existing expertise to facilitate and encourage collaboration across the sector, accelerating the development and use of innovative, effective, and sustainable non-animal models in research. NAT-Net's competitive grant program will open in 2025.

2. Infrastructure

The infrastructure pillar will build statewide assets and sovereign capabilities to enable the advancement and implementation of non-animal technology.

This may include data standards, biobanking and tissue collection; the integration of outputs into a coordinated pipeline for non-animal models; and updated biomedical R&D infrastructure to support non-animal model capabilities.

3. Regulatory

The regulatory pillar is working alongside national regulatory agencies to support the need for an Australian regulatory framework for the increased use of human cell and in silico models in medical research, and how they can reduce and replace animal use in the research and development pipeline.

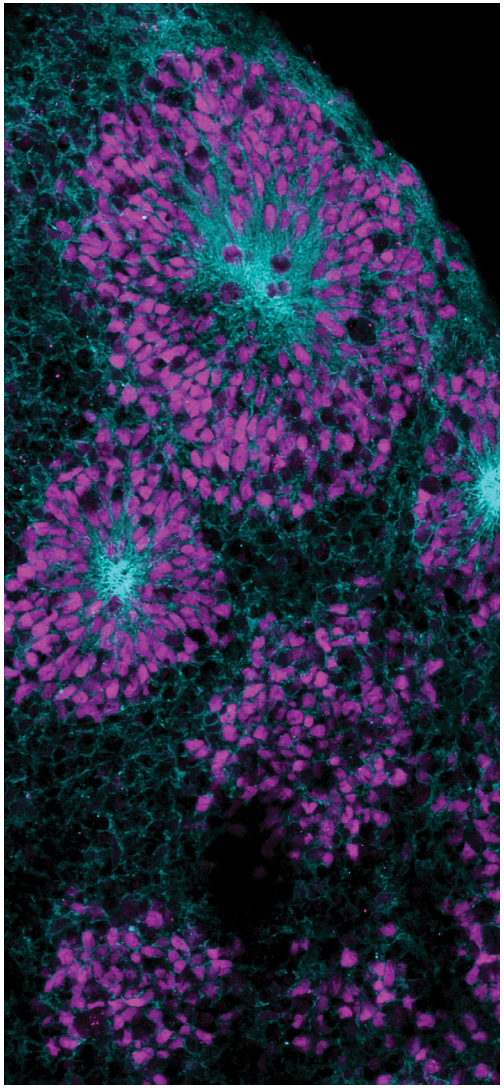
Eight leading NSW institutions form the foundational partners of NAT-Net. These are the University of New South Wales, Victor Chang Cardiac Research Institute, Children's Medical Research Institute, University of Technology Sydney, University of Wollongong, University of Sydney, University of Newcastle, and Hunter Medical Research Institute (HMRI).

NSW Government will continue to work on new opportunities and research to replace animals in medical research.

To ensure NAT-Net best serves those working in the non-animal technologies space, we invite you to join the network and share your views.

Register your interest today!

https://www.medicalresearch.nsw.gov.au/nat-net/



Acknowledgement: Brain organoid generated from human induced pluripotent stem cells (hiPSCs) showing neural rosettes containing nascent neurons in magenta and cyan. Dr Anai Gonzalez Cordero, Stem cell Medicine Group.

CASE STUDY

Fast-tracking treatments with computer modelling

Computer modelling is changing biological research and development, accelerating progress for new treatments to help bring them to patients sooner.

Patients are top of mind when researchers propose new health treatments. To check for potential health impacts, computers are now often used before any research occurs in the lab. This digital form of experimentation is called 'in silico' testing. It involves computer programs, and biological data sets. These are used to provide sophisticated answers to research questions about potential actions, safety, risks and side effects of new drugs, medical devices, surgical techniques and novel forms of treatment.

An important alternative to animal testing, data modelling draws on mathematical models, genetic disease databases and health and scientific information. It enables thousands of simulations to be conducted via computer to predict human responses to potential and emerging therapies.

Dr Kate Michie is a structural biologist and uses data modelling every day in her role as Chief Scientist at the Mark Wainwright Analytical Centre's Structural Biology Facility. This is located at UNSW Sydney, where projects that use 'in silico' testing are currently being supported.

The benefits of 'in silico' testing in medical research

"Data modelling is a technique where a software program on a computer is used to make a 'model' from specific data that is provided to the program. It enables large amounts of information to be looked at in a shorter time frame. It does not use physical resources other than computer time (and power), so less laboratory consumables are involved and no animals are used. It can help researchers look at specific health challenges of individuals and provide some highly accurate predictions of biological processes and disease progression."

Can this approach help fast-track drug therapies?
"It can dramatically progress research. For example, we used data modelling to visualise a protein structure involved in disease which helped to identify the molecular mechanism behind an experimental drug. The results redirected a whole research program and helped us to improve treatment for the disease. Proteins are the main building blocks of body tissue so impacts of new health treatments on proteins are often investigated through data modelling."

How can data modelling save time and money?
"Data modelling enables more personalised medicine. In one case, we used protein structure modelling to investigate a specific rare mutation in a patient. It allowed us to better understand their disease. The patient's healthcare team then had the correct diagnosis and a much better understanding of which therapy might help. In a very short period of time, the team moved into the clinical testing phase to treat the patient. This whole process was cheaper and faster than any other research method."

What insights can data modelling provide?
"Animal studies are slow, expensive and have to be planned and conducted with meticulous care to be of use and to be ethically acceptable. By contrast, data modelling results can provide specific insights that are more related to human variables and human responses. It can often also enable rapid answers to question about potential new treatments. Proposed new medications or therapies that might cause issues such as harmful side effects can sometimes be identified earlier and discontinued. Modelling can also test a large number of complicated parameters that simply can't be replicated in animal experiments."

The use of computer data will continue to increase as researchers mine data to inform and improve healthcare research and options. This 'in silico' experimentation will ensure safer treatments with fewer side effects. It will also improve patient outcomes by speeding up translation of new therapeutics from bench to bedside.

Dr Kate Michie
Chief Scientist at the Mark Wainwright Analytical Centre's Structural Biology Facility

NSW Health – education, research and innovation precincts

NSW Health supports a network of health, education, research, and innovation precincts that work collaboratively and complement one another to deliver comprehensive life science research and innovation across the State.

Placed-based collaboration for health innovation

In NSW, major health, education, research, and innovation precincts collaborate to tackle complex challenges and deliver impactful research and innovation outcomes for the State. These outcomes are driven by strong partnerships and a shared vision among co-located health, education, research, innovation, and industry organisations. This place-based approach supports the development of each precinct's unique strengths and opportunities, while contributing to the collective success of the broader precinct network.

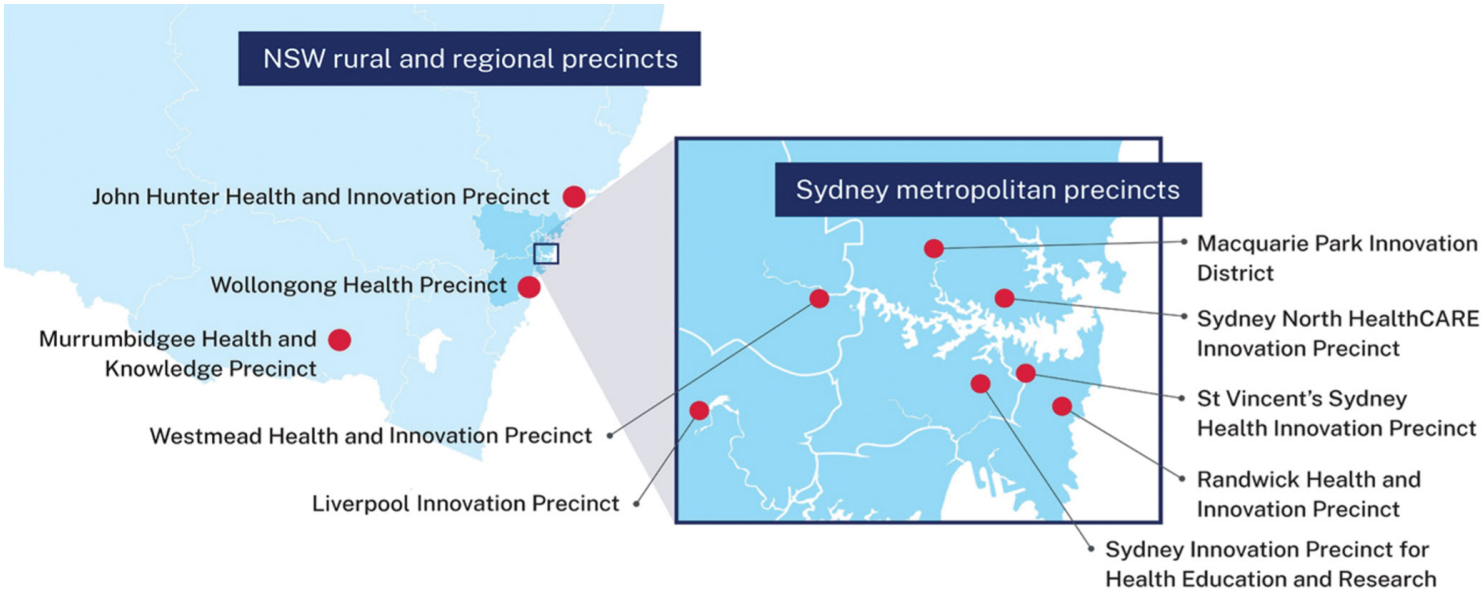
Strong innovation ecosystems

The NSW Ministry of Health supports and coordinates the network of health precincts across the State. With a deep understanding of each precinct's strengths and strategic opportunities, the team helps to drive collaboration and alignment across the network. Through the NSW Health Research and Innovation Navigator they connect new opportunities to the most relevant precincts, ensuring the right expertise and capabilities are engaged.

Effective partnerships

Collaboration across sectors and borders is a key driver of success for NSW's health precincts. By uniting government, health, research, education, and industry, precincts can co-design solutions that are locally grounded and globally relevant.

These partnerships are a strategic priority within the NSW Health Research and Innovation Strategy, helping to coordinate innovation efforts, maximise opportunities, and position NSW as a leading global destination for research investment and collaboration.



Liverpool Innovation Precinct

Liverpool Innovation Precinct

$830 million
Liverpool hospital redevelopment

4
universities

830,000m²+
land area

300+
clinical trials

Key Precinct Capabilities:

- Neurosciences, stroke and neurointerventional radiology
- Obstetrics and women's health
- Cardiovascular diseases
- Robotics, medical devices and health technologies

NSW Health South Western Sydney Local Health District · Ingham Institute · UNSW Sydney · Western Sydney University · University of Wollongong Australia · NSW TAFE · NSW Education · Liverpool City Council · phn South Western Sydney

Liverpool Innovation Precinct

A Pioneer Member of the Global Institute on Innovation Districts. Transforming our city and impacting the world through health, education and research innovation.

4 universities

1.65% year-on-year population growth

34 median age

150+ languages

Liverpool, Australia's next global gateway

Located 35km to the southwest of the Sydney CBD, the Liverpool Innovation Precinct co-locates government, academia, and business.

Investments are facilitated through a single front door, with a partner landscape and ecosystem that includes multinationals, startups, commercialisation advisors, venture capitalists and advanced manufacturers.

Liverpool is emerging as **Australia's university city**, and with a growing and young population of rich cultural diversity, the region is a hotspot for clinical trials.

Health is the largest employment sector in Liverpool, at 20%, compared to 14% for Greater Sydney and 15% for NSW.

Over A$22 billion is being invested in Liverpool in major infrastructure projects, including **Western Sydney International Airport**, Australia's newest, most advanced 24-hour international airport.

Areas of expertise

The South-Western Sydney Local Health District, in partnership with the Ingham Institute for Applied Medical Research, has invested significantly in clinical research resulting in the region gaining an international reputation across diverse fields, including:

- Neurosciences, Stroke and Neurointerventional Radiology
- Obstetrics and Women's Health
- Cardiovascular Diseases
- Orthopaedics and Muscular Skeletal Disorders
- Cancer

South-West Sydney Clinical Trials Centre

The Centre delivers both global and local clinical trials, supported by 65 coordinators and 150 investigators running over 500 trials at any given time. The region's ethnic diversity provides researchers with access to a population that reflects some of the world's most pressing health challenges and key global markets.

The Perich Centre

The Liverpool Innovation Precinct specialises in robotics and medical devices. The Perich Centre draws on its partnerships with researchers, start-ups, universities and multinationals to see the best minds collaborate with the common purpose of advancing health through the development of novel **medical devices, health technologies** and **robotics**.

The Precinct, in partnership with the International Medical Robotics Academy, hosts the only **surgical robotics training programs** in NSW accredited by the Royal Australasian College of Surgeons.

The Commercialisation Advisory Group (COMAG)

The Liverpool Innovation Precinct supports the development and delivery of new health technologies that advance healthcare, providing assistance to a range of organisations from startups to multinationals.

The Commercialisation Advisory Group helps companies and individuals collaborate with the Precinct and its partners to bring innovations to market. Combining clinical, surgical and research expertise, with start-up mentors and experienced former multinational executives, the Group offers innovators the support needed to successfully commercialise health technologies.

Find out more

liverpoolinnovationprecinct.com.au

Liverpool Innovation Precinct Investment Prospectus

Connect with Liverpool Innovation Precinct

Lance Chia, Director

Email: chial@liverpool.nsw.gov.au

Macquarie Park Innovation District

connect MPID
MACQUARIE PARK INNOVATION DISTRICT

Highly educated and innovative talent pool

Over
63,000
employees with four in five holding a Bachelor's Degree

Globally leading research University

With over
44,000
students from 113 countries and first University private hospital on

350
hectares total size
With over **1.2 million sqm** available and approved for commercial use

#1 for IP
Australian postcode with the most IP registrations

Key Precinct Capabilities:

- Hearing
- Cancer and oncology
- Neurodegenerative diseases
- Enabling biotechnology platforms incl. RNA & Synthetic Biology

MACQUARIE University SYDNEY·AUSTRALIA
Australian Hearing Hub
WOOLCOCK LEADERS IN BREATHING & SLEEP RESEARCH
australian genome foundry
ARC CENTRE OF EXCELLENCE SYNTHETIC BIOLOGY
RNA AUSTRALIA

Macquarie Park Innovation District

connect MPID
MACQUARIE PARK INNOVATION DISTRICT

Macquarie Park Innovation District (MPID) is Australia's first innovation district and is home to over 63,000 employees, 44,000 students at Macquarie University (MQU) and ~400 firms located in the district.

Home for biotech firms

MPID is home to numerous biotech, medtech and pharma multinationals incl. Abbott, BIOGEN, Boehringer Ingelheim, Cochlear, Johnson & Johnson, Medtronic, Merck, MSD and Nanosonics etc. who leverage the district to innovate, conduct clinical trials, access talent collaborate and conduct advanced manufacturing.

Key infrastructure

- **Macquarie University Hospital and MQ Health** -The first private hospital to be located on a university campus in Australia, fully integrating clinical practice with research and education. It has 181 beds, including a 20-bed ICU, world-class surgery facilities including surgical robots, and leading medical imaging. The hospital integrates its clinical services with nearly 30 speciality clinics.
- **Clinical trials capabilities** - MQU's Clinical Trials Unit works with industry to run clinical trials, most commercially sponsored. The unit has ~180 active clinical trials across a wide range of conditions including cancer, cardiovascular, respiratory and neurological diseases.
- **RNA Research and Pilot Manufacturing Facility** -The A$96 million facility will conduct small-scale GMP facility production of messenger RNA (mRNA), plasmid DNA (pDNA) and lipid nanoparticles (LNP) encapsulation – see page 14.
- **Australian Hearing Hub** - Unites researchers, educators, clinicians and innovators with expertise in linguistics, audiology, speech pathology, cognitive and language sciences, psychology, nanofabrication and engineering sciences. It provides shared research facilities located next to the global R&D manufacturing hub for Cochlear.
- **Woolcock Institute of Medical Research** - With over 200 medical researchers and clinicians, Woolcock is a globally leading hub for groundbreaking research in sleep and respiratory disorders. Woolcock offer a premier destination for clinical trials, clinical trial services, and research partnerships for industry and research focused organisations including a clinic and PC2 labs.
- **Australian Genome Foundry** - An open access cutting-edge facility designed to accelerate the design, construction, and testing of microbes using high-throughput robotics and automation. Co-located with the MQU node of the ARC Centre of Excellence in Synthetic Biology (CoESB).
- **Macquarie University Deeptech Incubator** - A cutting-edge space comprised of laboratories, equipment, secure offices and co-working areas to support innovators with access to laboratory space, specialised equipment, and MQU technical expertise.

Research expertise

Neurodegenerative diseases
Motor Neuron Disease (MND) Research Centre is Australia's largest program of clinical research into MND and related disorders to extend patients' lives and find a cure for Alzheimer's disease and Parkinson's disease.

Cancer and oncology
Biomedical cancer research has been pivotal in the development and application of liquid biopsies to personalise melanoma treatment and is playing a key role in a national lung cancer program aimed at improving patient outcomes.

Hearing
Macquarie is a global leader in research in diverse aspects of hearing including work on the neural basis of listening to advance the design and implementation of listening technologies for hearing devices and studies of vestibular function.

Mental health and wellbeing
MQU research leaders are fostering mental health and resilience in the community across the lifespan, from young children to older adults.

Find out more

Davor Jozic, General Manager

Email: davor@connectmpid.com.au

https://www.connectmpid.com.au/

Randwick Health and Innovation Precinct

RANDWICK HEALTH & INNOVATION PRECINCT

The future of lifelong health

1.8 million
patient encounters per year

4
co-located independent medical research institutes

UNSW Health Translation Hub opening
2025

Dedicated
first-in-human
clinical trial facility

Key Precinct Capabilities:

- Neuroscience and mental health
- Molecular medicine
- Rare diseases
- Health systems

Randwick Health & Innovation Precinct

RANDWICK HEALTH & INNOVATION PRECINCT

The future of lifelong health

The Future of Lifelong Health: The Randwick Health & Innovation Precinct brings together world-class education, research and healthcare organisations to address real-world problems across the lifespan.

The Precinct's Founding Partners - the University of New South Wales (UNSW), South Eastern Sydney Local Health District and the Sydney Children's Hospitals Network - are joined with four independent medical research institutes and additional facilities and centres to become a transformative and collaborative place of excellence, solving global challenges to enhance and nurture lifelong health.

Conveniently located alongside Sydney's Eastern beaches

A 20-minute taxi ride from Syndey airport, the Randwick Health & Innovation Precinct is located between Sydney's Eastern beaches and the Sydney CBD, with easy light rail access to both. The health campus and the university campus are adjoining and fully integrated. The Precinct sits within the broader community of the Royal Randwick Shopping Centre, the restaurants at the Randwick 'Spot', and Coogee Beach.

More than A$1.6 billion is being invested by state and federal government, the University of New South Wales and philanthropic donors to strengthen health, research, education and innovation outcomes of the Precinct. This has delivered a new Integrated Acute Services Building at the Prince of Wales Hospital, the redevelopment of the Sydney Children's Hospital at Randwick, including Australia's first Children's Comprehensive Cancer Centre, and the UNSW Health Translation Hub, which will bring university research centres, independent medical research institutes and industry partners together under one roof.

Major research assets

- Scientia Clinical Research Centre
- Ramaciotti Centre for Genomics
- Research Imaging NSW (human imaging)
- Bioanalytical Mass Spectrometry Facility
- Electron Microscopy Unit
- Nuclear Magnetic Resonance Facility
- Spectroscopy Facility
- UNSW Biorepository
- Biological Resources (small animal research & imaging)
- Recombinant Products Facility
- UNSW Node of the Australian National Fabrication Facility
- Tyree Foundation Institute of Health Engineering (for ideation and prototyping)

Leading translational research themes

- Neuroscience and Mental Health
- Molecular Medicine
- Rare Diseases
- Health Systems

In health technology innovation and industry partnerships we have strengths in medical devices, the RNA Institute, infectious disease via the Kirby Institute, and strong capabilities in clinical trials led by Scientia Clinical Research and the George Institute.

Commercialisation support

The UNSW Founders Program supports staff, students, and alumni to turn their research into startups. This university program is ranked number 1 in Australia, with 25% of Australia's top innovators hailing from UNSW.

The Precinct is also home to a growing number of startups and scaleups who are using UNSW's laboratories and services to establish their products, including Psylo, DropBio Health, Bondi Bio, Minimum Bio and Medlab.

Find out more

rhip.org.au

Download the Industry prospectus

Connect with Randwick Health & Innovation Precinct

Stephen Palmer, RHIP Acting Executive Director

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St Vincent's Sydney Health Innovation Precinct

ST VINCENT'S
SYDNEY HEALTH INNOVATION PRECINCT

2
major hospitals
1 public, 1 private

Over
860
researchers

2
of Australia's leading
medical research institutes

Over
330
clinical trials annually

Key Precinct Capabilities:

- Immunology
- Heart Health
- Cancer
- Equity in healthcare and research

Garvan Institute of Medical Research
Victor Chang Cardiac Research Institute
ST VINCENT'S HOSPITAL SYDNEY
ST VINCENT'S PRIVATE HOSPITAL SYDNEY
St Vincent's Clinic
UNSW SYDNEY

St Vincent's Sydney Health Innovation Precinct

ST VINCENT'S
SYDNEY HEALTH INNOVATION PRECINCT

We are Australia's first and oldest health precinct. A cooperative partnership of independent organisations focusing on delivering impact in medical research and healthcare — together. Always underpinned by our founding principles of equity.

Our aim is to work for greater health innovation and impact — capturing the benefits of collaboration and co-location. Located together in the heart of Sydney, close to transport, cafés, restaurants and more, our cornerstone partners are **St Vincent's Health Network Sydney**, the **Garvan Institute of Medical Research,** and the **Victor Chang Cardiac Research Institute**. **St Vincent's Private Hospital Sydney** and **St Vincent's Clinic** also play key roles. We also boast a variety of university partners including **UNSW Sydney**, and collaborative partners such as the **Kirby Institute**, the **Nursing Research Institute**, and **St Vincent's Health Australia** (the country's largest not-for-profit health and aged care provider, with over 35 hospitals and aged care facilities).

Core capabilities

Our key areas of shared strengths include research and healthcare:

- **Heart Health** — leading in:
  - transplantation **(5th busiest heart-transplant hospital in the world),** mechanical implants **(world's first patient to receive a total artificial heart (BiVACOR),** then live independently for 100 days at home, before successfully receiving a donor heart)
  - cardiac genomics.
- **Cancer —** including:
  - NSW's **largest centre for phase one clinical trials in cancer**
  - focused medical and research expertise in solid tumour, head and neck, breast, colorectal, pancreatic and prostate cancers
  - The Kinghorn Cancer Centre — houses researchers and clinicians working together to fight cancer, delivering the full spectrum of care.
- **Immunology — we:**
  - are the **leading national centre for adult food and drug allergy** research and treatment
  - performed **Australia's first bone marrow transplant (BMT),** and continue to progress BMT research and treatment for diseases such as rare genetic immunodeficiencies, multiple sclerosis, scleroderma, and lupus
  - maintain the **WHO's Asia Pacific's HIV drug-resistance reference laboratory**, and state-wide HIV reference laboratory.

Located in the heart of Sydney — with a footprint reaching far beyond

We care for patients from across the city, state, country and even overseas within our areas of excellence. Our research footprint extends beyond South-Western Sydney, Melbourne and Perth, with international collaborations including in the EU, UK, USA and throughout Asia.

Enabling infrastructure

Within our Sydney Precinct we have public and private hospitals, a custom-built suite of consulting rooms, pathology services, and more. This is all co-located with two of Australia's most recognised medical research institutes, that house impressive research infrastructure.

Our **Victor Chang Cardiac Research Institute Innovation Centre** is the home of high-content and high-throughput technologies focused on translational medical research.

The facilities include **specialist pre-clinical**, **clinical** and **other specialised imaging**, **stem cell production**, **metabolomics** and **data science**.

Through the **Garvan Institute of Medical Research** our highly skilled staff utilise state-of-the-art technologies supporting the focus areas of Genomics, Immunology and Cancer.

Through the **St Vincent's Hospital Sydney** and our **Centre for Applied Medical Research**, we also house **biobanking facilities**, **tissue banks**, and highly acclaimed **clinical trial** infrastructure, strengthened by ethics, governance and administrative expertise.

For more information

svship.org.au

Connect with St Vincent's Sydney Health Innovation Precinct

A/Prof Shona Blair, Precinct Director

Email: info@svship.org.au

Sydney Biomedical Accelerator

Sydney
Biomedical Accelerator

THE UNIVERSITY OF SYDNEY

NSW GOVERNMENT Sydney Local Health District

Under construction (Sydney Biomedical Accelerator)

Node of Tech Central Precinct

36,000m²
research and innovation pace

760+
clinical trials

Key Precinct Capabilities:
(Anticipated occupancy in 2028)

- Wet laboratory spaces (PC2 and PC3)
- Prototyping research facility (medical devices and implants)
- Good Manufacturing Practice cleanrooms
- Omics and bioinformatics

NSW GOVERNMENT Health Sydney Local Health District

THE UNIVERSITY OF SYDNEY

Sydney Biomedical Accelerator

Sydney Biomedical Accelerator

THE UNIVERSITY OF SYDNEY

NSW GOVERNMENT

Sydney Local Health District

A world leading health, education, research and innovation precinct.

For over 140 years, Royal Prince Alfred Hospital (RPAH) in Camperdown, Sydney, and the University of Sydney (USyd) have partnered to solve some of the world's most complex health problems. The Precinct enhances this partnership, bringing together RPAH, USyd, medical research institutes (MRIs), centres of excellence, and industry partners to create an ecosystem for discovery.

It is the joint mission within the Precinct to strengthen the identity of Camperdown as a global destination for health-related research, education, innovation and commercialisation.

A node of Tech Central and the 'to be' home of the Sydney Biomedical Accelerator

Located a few kilometres from the Sydney international airport and the Sydney CBD, the Camperdown offers quick connections to important surrounding industrial and tech focussed centres.

The area is undergoing **major transformation**, facilitated by **infrastructure investment, industry attraction, internationally recognised expertise, Australia's highest ranked tertiary and quaternary referral hospital** (RPAH), and internationally ranked university (USyd).

Located in Camperdown, **the Sydney Biomedical Accelerator Complex** (SBA) will be a cornerstone within the Precinct and the broader Tech Central precinct in the heart of Sydney. The SBA complex will be physically connected to RPAH and to Susan Wakil Health Building, the largest training facility for health professionals in the Southern Hemisphere.

Enabling infrastructure

The two new SBA buildings offer **36,000m² of new research, education, innovation and collaboration facilities**, including:

- Physical containment levels 2 and 3 wet labs
- Dry research and collaboration spaces
- Prototyping core research facility for medical devices
- Modernised and consolidated Biobank
- GMP cleanrooms
- Bio-additive Manufacturing facilities
- Computing and bioinformatics for Precision Medicine
- State of the art surgical learning facilities, mortuary, anatomy research and training
- Core research facilities for cryometry, microscopy, preclinical imaging, omics, organoids, drug discovery, protein production
- Small animal facilities
- Collaboration spaces for researchers, industry partners, and clinicians, including innovation and start-up hub spaces
- Physical connections to patient facing clinical spaces and clinical trials within RPAH.

Boasting research strengths that are responsive to changing needs

At the core of the Precinct is a commitment to providing modular, flexible and adaptable spaces to cater for changing needs and priorities. Existing research priorities and strengths exist in the areas of:

- Biochemistry
- Cancer biology
- Cardiovascular
- Cell and gene therapy
- Immunology
- Infectious diseases
- Medical device technologies
- Microbiology
- Neuropathology
- Precision medicine
- Transplantation research
- Biobanking

There are currently **768 clinical trials underway** within Sydney Local Health District.

Find out more

sydneybiomedicalaccelerator.org

Connect with SBA

Penelope Schmidt, Deputy Director Sydney Research & SBA Core Project Team, SLHD

Email: penelope.schmidt@health.nsw.gov.au

Sydney North HealthCARE Innovation Precinct

NSW GOVERNMENT
Northern Sydney Local Health District

3
major hospitals

400
researchers

120,000m²+
land area

350+
clinical trials

Key Precinct Capabilities:

- Clinical trials as therapy
- Value-based healthcare
- Digital advancement and AI
- Planetary health

North Shore Private Hospital
MACQUARIE University
THE UNIVERSITY OF SYDNEY
ACU
UNSW SYDNEY
MATER HOSPITAL ST VINCENTS HEALTH AUSTRALIA
HammondCare Champion Life
phn NORTHERN SYDNEY
SYDNEY NORTH Health Network
NSW TAFE
Ramsay Health Care
UTS UNIVERSITY OF TECHNOLOGY SYDNEY
connect MPID MACQUARIE PARK INNOVATION DISTRICT
agrf
dexus
Sydney HealthPartners
Willoughby City Council
Nucleus Network
KOLLING INSTITUTE
NEXTDC
NORTH Foundation
The George Institute for Global Health

Sydney North HealthCARE Innovation Precinct

Northern Sydney Local Health District

Our vision is to be a globally recognised precinct where healthcare, research and education unite to deliver value-based healthcare.

Our mission is to advance lifelong, comprehensive and integrated healthcare through excellence in patient care, research, and education, improving consumer outcomes and experience, provider experience, equity and system efficiency.

Located in St Leonards, just 8kms from Sydney CBD

Located in St Leonards, just 8kms from Sydney CBD, the Sydney North HealthCARE Innovation Precinct is strategically positioned with excellent connectivity via St Leonards rail station (100m) and Crows Nest Metro station (600m). The Precinct is situated on the traditional lands of the Cammeraygal peoples and serves a diverse population of approximately 1 million people across 900km^2 extending from Sydney Harbour to the Hawkesbury.

Centred around Royal North Shore Hospital — one of Australia's leading tertiary referral and teaching hospitals — the Precinct offers significant innovation opportunities in clinical care, research and education. This prime location integrates public and private healthcare services, including specialised clinical trial facilities, creating an ecosystem to enable cross-sector innovation.

Our Precinct is uniquely co-located with the NSW Ministry of Health and its pillar organisations (including the Clinical Excellence Commission and Agency for Clinical Innovation), creating direct pathways for healthcare policy implementation and evaluation.

Enabling infrastructure

Our contemporary RNSH Master Plan 2023 – 2063, provides a strategic blueprint for future development on the campus to support the Precinct's health, research, education, and innovation ambitions.

The Precinct's robust governance structure ensures coordinated utilisation of assets across our university partners to maximise cross-disciplinary collaboration and innovation potential.

Within the Precinct, key assets include:

- One of only two **total body PET scanners** in Australia
- A state-of-the-art **Da Vinci surgical robot**
- Advanced **COBRA robot** improving both diagnosis and treatment of localised cancers
- Co-location with **North Shore Private Hospital** and the **North Shore Health Hub** operated by Dexus,
- Specialised clinical trial facilities operated by **Nucleus Network**
- the **Kolling Institute** provide dedicated research and private healthcare services.

Areas of expertise

Our Precinct excels in translational research across domains including:

- Cancer & Haematology
- Neuroscience & Pain
- Cardiovascular & Structural Heart Services
- Musculoskeletal & Burns
- Renal & Critical Care
- Mental Health, Trauma & Spinal Cord Injury
- Functional Wellbeing and Integrated Care

The following focus areas distinguish our Innovation Precinct including:

- **Clinical trials as therapy**: Integrating innovative clinical trials directly into patient care pathways, offering cutting-edge treatments while generating valuable research outcomes.
- **Value-based healthcare**: Pioneering approaches to healthcare delivery that optimise outcomes per dollar spent, through our Learning Health System model that embeds translational research into everyday practice.
- **Digital advancement and AI**: Leveraging data science and artificial intelligence to enhance clinical decision-making, patient flow and health system performance including being the first metropolitan District in Sydney to rollout the new Single Digital Patient Record.
- **Planetary Health**: Pioneering sustainability work as the first Local Health District in NSW to map our carbon footprint, develop a planetary health framework, winning the NSW Health Award for reducing anaesthetic Greenhouse Gases.

For more information

Connect with Sydney North HealthCARE Innovation Precinct

Simon Radmore, Executive Director Strategy and Office of the Chief Executive, NSLHD

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The John Hunter Health and Innovation Precinct

NSW GOVERNMENT Health
Hunter New England
Local Health District

820
bed adult and paediatric hospital

$840 million
hospital expansion underway

880,000m²
land area

1700+
researchers

Key Precinct Capabilities:

- Health technology & digital health
- Operations, logistics and manufacturing
- Sustainability
- Regional healthcare

NSW GOVERNMENT Health Hunter New England Local Health District

UNIVERSITY OF NEWCASTLE AUSTRALIA

Hunter Medical Research Institute

The John Hunter Health and Innovation Precinct

NSW GOVERNMENT Health
Hunter New England
Local Health District

Our vision is to be the global leaders in solving real-world challenges in regional and remote healthcare.

Non-metro settings account for over 40% of the global healthcare market. Our mission is to drive the rapid development, evaluation and translation of healthcare and health industry solutions, ensuring people living outside metro areas benefit from the extraordinary pace of change and advancement in healthcare. We have a robust, easy to navigate health, academic and industry community that welcomes and supports new enterprise and partners to drive collective success.

Located in Newcastle — the heart of Australia's largest regional economy

Occupying 88 hectares of government owned land, The John Hunter Health and Innovation Precinct is 90 minutes north of Sydney, on the coast of the world-renowned Hunter Region. Newcastle is a thriving city with a rich history of innovation and world leadership in healthcare, high- tech manufacturing, heavy industry, resources, viticulture and global trade and shipping.

Newcastle offers a high standard of living and community amenity, a highly networked and engaged business community, a well- developed Health and MedTech Industry Cluster (hmic.org.au), and affordable residential and industrial real estate.

The Precinct is led by the Hunter New England Local Health District, which provides health services to more than 1.5 million people who are a highly representative and research engaged population.

Enabling infrastructure

With master planning underway and a single government landowner overseeing land release, the Precinct offers an unmatched life sciences-oriented development opportunity in one of Australia's fastest growing cities. Coupled with substantial expected footprints of key worker housing, medihotel, residential care and commercial and community development potential, JHHIP is a true city-shaping investment opportunity.

Our world-class infrastructure includes:

- **John Hunter Hospital & John Hunter Children's Hospital** An 820-bed tertiary referral and teaching hospital with impressive clinical trials and basic science capability.
- **Health Innovation Living Lab** A 500m^2 innovation incubator with R&D labs, bio- fabrication services, coworking spaces and adjacent clinical simulation facilities embedded in the John Hunter Hospital.
- **Hunter Clinical Trials Unit** (in development) Linked to the Regional, Rural and Remote Clinical Trials Northern Node that services 2 million people, the facility will offer inpatient and day stay capacity across all trial phases supporting drug, device and software as clinical device studies.
- **Hunter Medical Research Institute** Australia's only comprehensive regional medical research institute. Housing over 1,700 researchers, it provides supporting imaging, clinical trials, health economics, biobanking, data and informatics infrastructure and over 16,000m^2 of lab, co-working, clinic and administrative facilities.

Providing clinical and translational research capabilities in:

- Digital health
- Health technology
- Operations, logistics and manufacturing
- Sustainability, as well as
- Therapeutic areas of Neurology, Metabolic Disease, Cardiac Care, Respiratory Disease and Immunology
- As early adopters of telehealth technologies, we are **the lead development and adoption site for the NSW Government's A$1 billion state-wide Single Digital Patient Record program**, are developing a 300+ bed virtual hospital, and partnering with industry to develop and implement AI health technologies.

We are pioneers in stroke reperfusion therapies, stroke ambulance services including in-field microwave tomography imaging, novel concussion diagnostic technologies and recovery models for contact sports, as well as world leading multidisciplinary diabetes care models, including satellite enabled mobile service delivery and point of care diagnostic platforms for remote communities.

Find out more

Promotional video for the Precinct: vimeo.com/766254988

Connect with John Hunter Health & Innovation Precinct

Adam Walczak, Precinct Deputy Director

Email: adam.walczak@health.nsw.gov.au

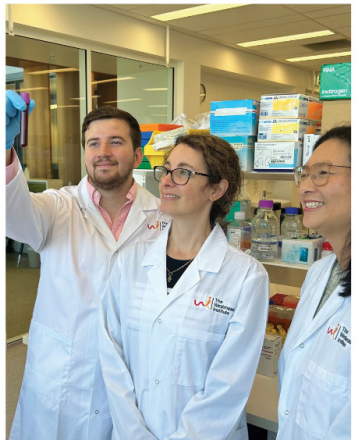
Westmead Health Precinct

4
major hospitals

2
university campuses

400,00m²+
high-end health related developments

Nearly
3000
active clinical trials and studies



Key Precinct Capabilities:

- Advanced therapeutics
- Translational cancer
- Digital health and big data
- Infectious diseases, Immunology and Vaccinology

In partnership with:

Western Sydney Local Health District · The Sydney Children's Hospitals Network · Children's Medical Research Institute · Jeans for Genes · The Westmead Institute for Medical Research · NSW Health Pathology · NSW Government

Westmead Health Precinct

Spanning 75 hectares, the Westmead Health Precinct ecosystem comprises over 400,000m² of high-end health related developments, including two major hospitals, five world-leading medical research entities, two universities and the largest research-intensive pathology service in New South Wales.

Partners include:

- Western Sydney Local Health District
- Sydney Children's Hospitals Network
- Children's Medical Research Institute
- Westmead Institute for Medical Research
- NSW Health Division for Clinical Innovation and Research, and
- NSW Health Pathology

Western Sydney — home of the Westmead Heath Precinct

With **over 1 million residents**, Western Sydney is home to more than **20% of Sydney's population.**

50% of the community was born overseas and over **54% speak a language other than English.**

Leading areas of expertise

The Westmead Health Precinct is recognised for its extensive and highly specialised clinical services and research spanning across the life span, from pre- natal to end of life.

Advanced therapeutics will change healthcare, bringing together world-class expertise in clinical medicine encompassing the entire translational pathway from basic science through to clinical trials.

Translational cancer research programs capitalise on world-class research strengths, improving the link between research and clinical care and applying discoveries to some of the world's most serious diseases.

Infectious diseases, immunology and vaccinology researchers are dedicated to tackling the health and socioeconomic consequences of emerging and re-emerging infectious diseases, supporting the translation of research into the development of vaccines, new treatments and diagnostics.

Westmead has more **clinical trials** than any other location in NSW, providing patients with access to cutting-edge treatments across the human lifespan from birth to end of life.

Digital health and big data is at the very frontier of advancing our understanding and delivery of healthcare, with data mining, analytics and modelling delivering important insights into disease classification, diagnosis and prognosis.

Enabling infrastructure

The Westmead Health Precinct has benefitted from a A$5 billion investment by the NSW Government towards several health and transportation upgrades.

Major infrastructure includes:

- Central Acute Services Building at the Westmead Adults Hospital
- Children's Hospital at Westmead Redevelopment
- Australia's first Viral Vector Manufacturing Facility (see page 14)
- NSW Biocontainment Centre
- Westmead Innovation Centre
- Parramatta Light Rail
- Sydney Metro West Westmead stop connecting Westmead to Sydney's CBD
- Other highlights include:
- Australian Cancer Research Foundation International Centre for the Proteome of Human Cancer (ProCan)
- National Centre for Immunisation Research and Surveillance.

Looking to the futuree

The future opportunity is Westmead's 'Health Enterprise Zone' or 'HEZ', more than 12 hectares of developable area, presenting the opportunity for industry (commercial and advanced manufacturing) to co-locate at the Westmead Health Precinct. HEZ will drive economic advancements and create employment opportunities and services for Western Sydney.

Find out more

westmeadhealthprecinct.com

Westmead Health Precinct Industry Prospectus

Connect with Westmead Health Precinct

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Make your opportunities happen in NSW

Contact us

For help to access NSW Health, contact our Health Research and Innovation Navigator at MOH-InternationalDesk@health.nsw.gov.au

For general information on establishing, growing and expanding your business in NSW, contact Investment NSW at investment.nsw.gov.au or email investment.inquiries@investment.nsw.gov.au

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