



Strategic
Plan

2019
2023

*‘Increasing Australia’s capability to translate
scientific discoveries into new medicines’*



Foreword

The National Drug Discovery Centre (NDDC) is an initiative of The Walter and Eliza Hall Institute of Medical Research, with support from the Commonwealth and Victorian Governments, aiming to translate and advance scientific discoveries through the development of new medicines to treat disease. The NDDC offers Australian medical researchers access to a fully staffed facility with drug screening expertise and the latest in advanced robotic high-throughput screening technology.

The commercialisation of drug discovery research has historically been the terrain of pharmaceutical companies. In recent decades, these companies have been pulling back from the early stages of drug discovery preferring instead to partner with academia and invest later in the translation pipeline. As a result, academia is taking a more prominent role in early stage drug discovery to translate biological discoveries into treatments for disease, often in partnership with commercial organisations.

Australia is a rich source of high-quality, internationally competitive biomedical research, producing 3% of the world's published medical research that places us in the top five countries in the world on a per capita basis. However, the same cannot be said for our ability to take advantage of the commercial opportunities presented by such a rich resource, where Australia is far less experienced and is only placed 20th in the world.

Access to research infrastructure is fundamental to early stage drug discovery. High throughput screening is a gold standard for discovering 'hits' during the early stages of drug discovery. The technology uses automation to test hundreds of thousands of drug-like chemicals against a biological target. The 'hits' discovered using high throughput screening provide starting points for the development of new medicines.

With the aim to fill the known gap in the drug discovery pipeline in Australia and improve the translation of Australia's world-class basic research, the NDDC was created in 2019, thanks to generous investments from the Commonwealth and Victorian Governments together with the Institute's internal contribution and philanthropic gifts. The Centre will increase the capacity of high throughput screening services to cater to Australian demand.

The NDDC provides researchers with an affordable pathway to conduct a high-throughput screening campaign. Operating on a service model, the Centre has a fixed number of subsidised screens available each year for eligible Australian researchers through the support of a grant from the Medical Research Future Fund – Accelerated Research Program. Access to a subsidised screen follows a submission process designed to select the most robust and promising early-stage drug discovery projects in Australia. The subsidised screens will be provided at a 90% discount to the selected applicants.

Our strategic plan sets out the vision and focus that will guide us for the next five years. This strategic plan covers three main, interconnected strategic goals that will help us achieve our mission:

- increase the breadth of the Australian drug discovery pipeline and enhance the translation of Australian scientific breakthroughs into drug leads
- strengthen national collaboration and connectivity between medical research institutions and industry
- achieve sustainability through innovative approaches and continuous improvement

Our strategic plan is a living document that will be reviewed regularly to ensure we continue building on our program, positioning ourselves for future challenges and achieving our goals.

Professor Guillaume Lessene
Theme Leader, New Medicines
and Advanced Technologies



Vision

To accelerate and facilitate the translation of scientific discoveries into new treatments for patients

Mission

To increase Australian medical researchers' access to advanced high-throughput screening supporting the translation of biomedical research breakthroughs into:

- early stage drug leads that can result in the development of new, first-in-class medicines to treat human disease in the clinic based on Australian research
- high-quality chemical probes that will play a key role in progressing basic research, as well as the drug discovery pipeline

Values

Passion

We love what we do and are dedicated to our mission, people and partners

Collaboration

We work together with our partners to achieve maximum impact and positive results

Integrity

We act with honesty, fairness and accountability

Growth focused

We are committed to continuous improvement, expanding our expertise and empowering our staff

Goal 1

Increase the breadth of the Australian drug discovery pipeline and enhance the translation of Australian scientific breakthroughs into drug leads

The NDDC will focus on improving the translation of Australia's world-class basic research outputs into new drug leads that can ultimately be developed to treat diseases and improve the quality of life across the community. The NDDC will focus on enhancing Australia's capability and capacity for 'hit' discovery by providing specialist expertise, quality service and advanced technology.

Our key strategic objectives are to:

- improve researchers' access to world-class screening opportunities
- provide affordable access to screens

by

- procuring cutting edge advanced robotics and well designed and curated chemical libraries
- investing in expertise, innovative screening approaches and technologies

Our outcome indicators are:

- an increased number of high throughput screens performed in Australia
- facilitated access to and effective use of world-class facilities and resources for the Australian biomedical research community
- new early-stage drug leads identified to help Australian researchers advance their discoveries towards new treatments for disease

Goal 2

Strengthen national collaboration and connectivity between medical research institutions and industry

The NDDC will focus on building and maintaining a constructive working relationship with other Australian research institutions and on promoting effective scientific and commercial collaborations between academic groups and industry. When appropriate, the NDDC, through its existing networks and relationships, is committed to connect partner organisations with suitable facilities with capabilities in assay development (before the NDDC) or in medicinal chemistry (after the NDDC) which will be able to progress identified hits through the drug discovery pipeline.

Our key strategic objectives are to:

- broaden understanding of the drug discovery process for Australian basic researchers
- establish the NDDC as a trusted source of tools, resources and know-how for Australian researchers to support successful progression of their drug discovery projects
- provide links between academic organisations and industry to create opportunities and enhance industry partnership as well as investment

Our outcome indicators are:

- increased national collaborations and partnerships to progress drug discovery projects from assay development to preclinical development
- creation of a directory of drug discovery services, facilities and capabilities, from assay development to medicinal chemistry, that is used and recognised by the sector

Goal 3

Achieve sustainability through innovative approaches and continuous improvement

The NDDC will focus on adopting a continuous quality improvement approach ensuring that appropriate resources, processes, technology and capability are put in place to support growth, efficiency and the achievement of its organisational goals. The NDDC is dedicated to pursuing long-term sustainability, monitoring and improving its organisational performance to ensure a financially-sound organisation.

Our key strategic objectives are to:

- achieve financial sustainability by operating efficiently and building on existing and new income sources
- achieve a high level of engagement and user satisfaction
- create a culture where staff are enabled, engaged and energised
- ensure good governance and quality of services

Our outcome indicators are:

- diversified income sources to maintain a financially-sound organisation
- a long-term sustainability plan, focusing on efficient and sustainable operations
- staff are equipped with the right skills and professional development opportunities, achieving a high level of engagement and satisfaction
- services are recognised and trusted by our users and partners, with a high satisfaction rate



National Drug Discovery Centre

Contact us

National Drug Discovery Centre
1G Royal Parade
Parkville Victoria 3052 Australia

nddc@wehi.edu.au
nddc.wehi.edu.au



Walter+Eliza Hall
Institute of Medical Research
DISCOVERIES FOR HUMANITY



Australian Government
Department of Health



Australian Government
Department of Industry,
Innovation and Science

www.wehi.edu.au

WEHIRESEARCH
 @WEHI_research



WEHImovies
[wehi_research](https://www.youtube.com/wehi_research)
Walter and Eliza Hall Institute