NCRIS Health Group

Enabling health innovation and translation

Together, we tackle complex, multidisciplinary medical challenges using world-class national research infrastructure. Our experts, data and tools shepherd health discoveries toward better prevention, diagnosis and treatments for Australians. The NCRIS Health Group accelerates Australian health research and industry innovation, reducing the time and costs of getting new health solutions to patients.

Beating cancers

Improving melanoma detection, diagnosis, treatment for all Australians

Australia leads the world in melanoma rates, with over 18,000 diagnoses each year. The NCRIS Health Group's collaborative, sustained efforts have delivered lasting national and global impact.

Bioplatforms Australia provided early strategic genomics investment to reveal driving mutations for melanoma: the foundational datasets stratified which patients might respond to expensive inhibitor drugs and who wouldn't. Phenomics Australia has strengthened this work by ensuring data could be analysed at scale and shared efficiently. The Australian Research Data Commons provided the digital infrastructure and strategic leadership to support this distributed data ecosystem, using Phenomics Australia's data processing. Australian National Fabrication Facility's work finding melanoma through capturing and profiling cells supports better detection for patients.

This system is now powering the largest Australian melanoma cohort study ever, with 15,000 participants. It is transforming early detection through 3D total-body advanced imaging and National Imaging Facility expertise, scanning the whole body in under a second and creating a detailed digital avatar of all moles and skin lesions.

Together, the NCRIS Health Group has enabled the pipeline that accelerates early diagnosis, informs national screening programs, and offers real-world health and economic benefits.

"I think it's certainly fair to say that our group is leading the world in this kind of interdisciplinary melanoma research. We want to introduce a paradigm shift in how melanoma and skin cancer is diagnosed in Australia because it works beautifully!"

Prof H. Peter Soyer, ACRF ACEMID leader

Transforming early diagnosis with a 3D model:

1 second

92 cameras

up to 9000 skin spots

In 2015, the 5-year survival rate for melanoma was **less than 5%** in 2025, it's **over 50%**



Beating cancers

New antibody reveals ovarian and bladder cancers, then delivers treatment

A promising Australian ovarian cancer therapy has progressed from discovery to first-in-human trials.

National Imaging Facility provided world-class imaging to detect and track the cancers with precision, and Therapeutic Innovation Australia supported the complex steps needed to manufacture a clinical-grade antibody safely and at scale through the Pipeline Accelerator voucher scheme. National Imaging Facility delivered advanced imaging, radiochemistry and clinical trial coordination, ensuring rapid progress without reliance on overseas systems.

Together, these nationally funded providers formed a seamless, end-to-end pipeline, enabling an Australian-developed innovation to enter first in-human trials and offering new hope for patients with hard-to-treat ovarian and bladder cancers.

The National Deuteration Facility supplies the deuterium-labelled standards used in a new blood test for breast cancer diagnosis, soon to be rolled out nationally.

"Having national research facilities available has been a game changer – without them, I couldn't have done what I have, and they came through at exactly the right time for the research that I was doing."

Prof John Hooper, Cancer Biology Research Group leader, Mater Research Institute

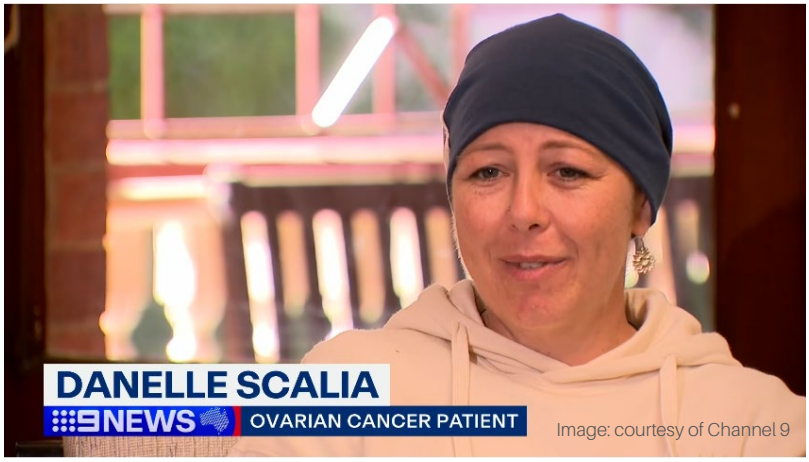

Image: courtesy of Channel 9

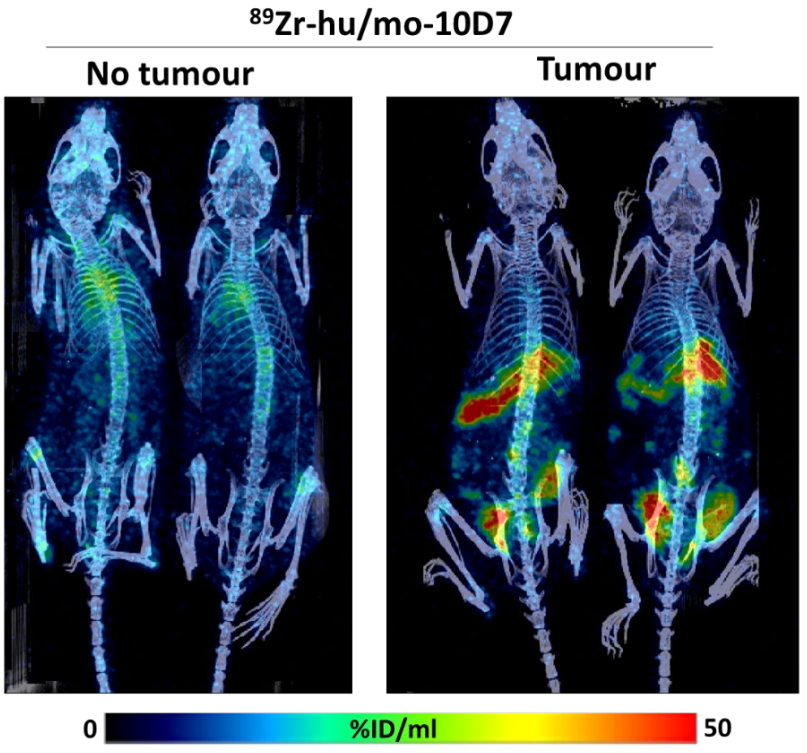

Image: Prof John Hooper

The supported project received
$1.9 million

MRFF funding for an ovarian cancer trial
$950,000

from the CUREator scheme for a bladder cancer trial
$1.8 million
through an NHMRC Ideas Grant