

Linking patient data for cancer research

Bioimaging Bank: Linking medical imaging and biobanking data for cancer research.

The study of patterns in radiologic images (radiomics) has independent prognostic and predictive value that improves the ability to personalise treatment. This emerging field, which includes advanced image analysis and machine/deep learning techniques, is showing promise to be both complementary to other omics – genomics, proteomics or in some cases replace them with a more cost-effective approach.

Over the last seven years, Prince of Wales Hospital and UNSW have established and provided a standardised universal consent process, collecting and linking both clinical and biological data to specimens, as part of the [Health Science Alliance \(HSA\) Biobank](#) project. The dedicated biobanking database contains biological information related to the tumours from approximately 5000 patients treated at Prince of Wales Hospital. Specimens are stored, managed and distributed from the UNSW Biorepository.

The project will promote and support research by linking medical imaging data and biological tissue data for cancer patients through a single comprehensive database.

Start date

3 June 2019

Expected completion date

21 October 2019

Investment by ARDC

\$49,999

Co-investment partners

[University of New South Wales](#)

[Prince of Wales Hospital](#)

Lead node



2. Extend to other partners

Extend the pathway for extracting medical imaging data to other partners in the South Eastern Sydney Local Health District.

1. Add diagnostic imaging information to the HSA Biobank

The Open Specimen database will be updated with diagnostic imaging information for all existing patients in the Biobank database.

3. Completion of project

Project outcomes will be presented at an ARDC Data and Services Summit in October 2019.

Core features



Facilitate data examination

Facilitate the examination of both biological and imaging data in specific cancer groups.

Enable research

Enable research using linked diagnostic data for cancer patients.

Provide a methodology

Provide a methodology for other centres to adopt or implement as a model.

Who is this project for?

- Clinicians
- Researchers
- Hospitals
- State & Federal Health Departments



What does this project enable?

This project will make existing clinical cancer data available for research use, expand upon current best-practice in an area identified as a priority for the Commonwealth (biobanking) and provide a methodology for other centres to implement or use as a model.



Handy resources

- [Final Report](#) [PDF 156KB]
- [Presentation](#) [PDF 222KB]
- [Health Science Alliance \(HSA\) Biobank](#)
- [Lowy Biorepository at UNSW](#)



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