

# T1T2T3

## Embedding Research (and Evidence) in Cancer Healthcare (EnRICH)

*Sydney Catalyst member metropolitan and regional clinical sites*

The aim of the Sydney Catalyst Flagship EnRICH Program is to improve outcomes for patients with lung cancer, an identified priority in the NSW Cancer Plan. To achieve this aim, EnRICH has created a platform for researchers across the T1-T3 spectrum to develop and initiate basic science, clinical research, and intervention studies to generate new evidence of effective treatments and drive clinical quality improvement by addressing identified treatment gaps of patients with lung cancer.

EnRICH is now operational across all Sydney Catalyst member clinical sites and includes more than 800 patients with lung cancer. Enrolment is ongoing as the team continues towards the minimum 1000 patient target.

The EnRICH cohort comprises comprehensive patient, diagnostic, treatment and outcome data (including patient-reported outcomes), alongside serial blood samples (more than 11,000 cryovials stored to date) and archival tumour tissue, for translational cancer research and clinical quality improvement.

Clinical data is being used to identify and reduce unwarranted clinical variation against evidence-based best practice quality indicators that may contribute to morbidity and burden of disease, and to prioritise interventions to improve service delivery, thereby ensuring best possible clinical outcomes for the lung cancer population, a translational research success.

Over the last 12 months the EnRICH cohort has more than doubled from 300 to over 800 patients and has developed essential infrastructure to embed research and evidence in cancer healthcare, which is one of the four strategic goals of Sydney Catalyst.

EnRICH has leveraged funding to support a range of linked translational research, including:

- A Sydney Catalyst / Lung Foundation Australia co-funded PhD award in lung cancer.
- A NSW Health Biospecimen Collection Grant for future biobanking and linkage to routinely collected population level datasets.
- A Cancer Institute NSW Innovations in Cancer Control Grant to identify specialist clinician-focused priorities for educational and systems interventions to reduce unwarranted clinical variation in the treatment of patients with lung cancer.



# CASE STUDY

There are a number of ongoing T1T2 sub-studies utilising the existing EnRICH research infrastructure:

- Procoagulant platelets as a diagnostic predictor of thrombosis in lung cancer patients (Centenary Institute/ANZAC Research Institute)
- Rapid Autopsy Program in Lung Carcinoma (The Kinghorn Cancer Centre/Garvan Institute Medical Research)
- Palliative care-focused collection of biospecimens from patients with life-limiting lung cancer (St Vincent's Hospital Campus)
- EnRICH/Lung Foundation Australia co-funded PhD Scholarship in Lung Cancer 'Predicting platinum sensitivity in lung cancer' (Garvan Institute of Medical Research)
- Immune Signatures in Lung Cancer (Charles Perkins Centre, The University of Sydney)

Two new sub-studies funded under the Sydney Catalyst EnRICH T1T2 Sub-Study Funding Scheme will commence in January 2020:

- Lipid biomarkers of therapeutic response in high grade lung cancers, led by A/Professor Anthony Don at the Centenary Institute, The University of Sydney
- Identification of plasma extracellular vesicles signatures in lung cancer patients with brain metastases versus those without, led by Professor Georges Grau at the Bosch Institute, The University of Sydney

Preliminary results from the T1T2 sub-study led by Professor Phil Hogg, investigating procoagulant platelets as a diagnostic predictor of thrombosis in lung cancer patients, were presented at the International Society on Thrombosis and Haemostasis 2019 Congress.

The results of the EnRICH Program will ultimately improve care and outcomes for patients with lung cancer. Specifically the collected data will be used to identify and reduce unwarranted clinical variation against evidence-based best practice quality indicators that may contribute to morbidity and burden of disease. This will enable interventions to be prioritised to improve service delivery, thereby ensuring best possible clinical outcomes for the lung cancer population, a translational research success.

The methodology that underpins the EnRICH Program also has the potential to be rolled out across other tumour types creating a holistic framework for improving cancer patient outcomes.

**Cancer Institute NSW**  
Translational Cancer Research Centre