Sydney Brain Bank

NeuRA
Discover — Conquer — Cure

NSW GOVERNMENT Health
South Eastern Sydney
Local Health District

NeuRA

UNSW SYDNEY

Who we are

The Sydney Brain Bank (SBB) is a biobanking facility that collects, characterises, stores, and distributes human brain and spinal cord tissue for research into disorders of the brain and mind. Additionally, associated longitudinal clinical data on donors is accessible through the clinical research programs that work closely with the SBB. Established in 2005, the SBB is located at NeuRA, one of Australia's leading institutes in brain research.

The SBB houses specialised laboratories and equipment designed for handling, dissecting, and staining human brain and spinal cord tissue specimens. SBB staff are highly trained in neuroanatomy, histology and immunohistochemistry and have extensive skills in neuropathology and microscopy (brightfield, fluorescence and confocal).

The SBB is accredited through the NSW Health Biobanking certification program and operates within a national network of brain banks to facilitate requests for tissue and to build strong cohorts for research. The SBB also partners with international consortia investigating the genetic architecture of brain and mind disorders and improved neuropathological characterisation.

Access to samples from the Sydney Brain Bank

The SBB collects brain and/or spinal cord from donors with the following disorders:
Alzheimer's disease
Synucleinopathies- Lewy body disease and multiple system atrophy
Frontotemporal lobar degeneration
Motor neuron disease
Huntington's disease
Chronic traumatic encephalopathy
Healthy aging

Researchers are invited to submit proposals for studies utilising the tissues collected through the SBB, which are reviewed with the help of an independent scientific review committee. Projects are required to have appropriate ethical approval to work with human tissues.

Sydney Brain Bank contacts:

Email: sydneybrainbank@neura.edu.au

Website: https://sbb.neura.edu.au

Once a proposal is approved a Tissue Transfer Agreement will be signed by both parties prior to tissue release.

The SBB charges partial cost recovery fees to subsidise the costs of sample preparation, administration of the application process, plus collection, processing, case characterization and long-term storage of tissues. A cost recovery quote will be provided prior to proposal submission for review.

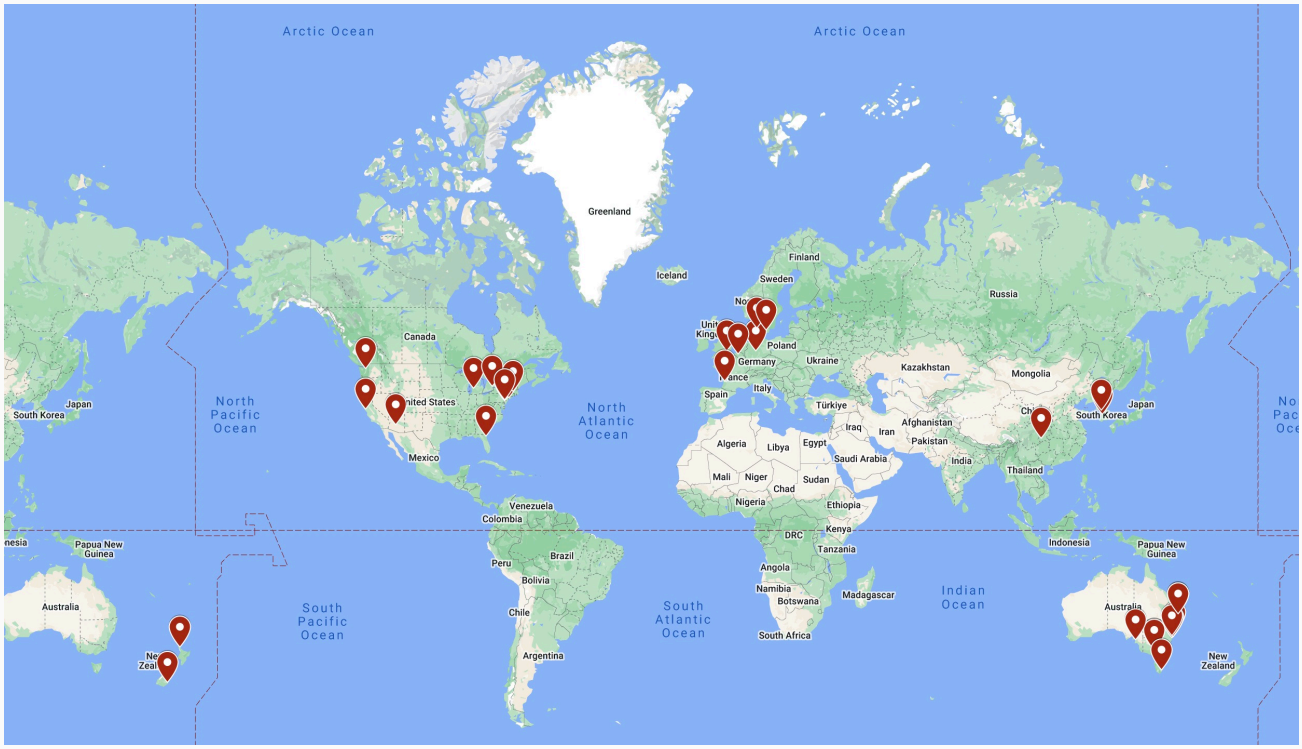
Improving brain health through high quality tissue samples

Since its inception, the SBB has collected brain tissue samples from over 880 generous brain donors. We play a vital role in advancing global scientific neuroscience knowledge, having provided more than 53,000 tissue specimens to facilitate over 350 national and international research studies.

These projects have generated over 300 published studies and have been cited by other researchers more than 3,000 times, making them a highly influential resource in neurological research. Over 70 patents have also been derived from these publications.

Using SBB tissue, studies have led to the discovery of:

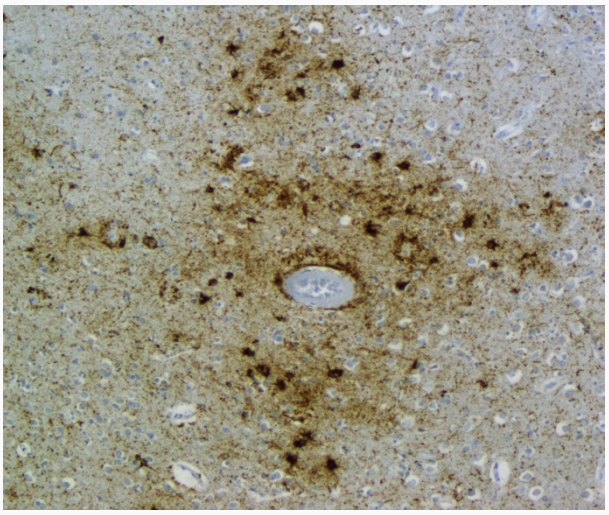
- refined clinical diagnosis
- new neurological and neuropathological disorders
- novel disease genes
- diagnostic and therapeutic strategies
- pathologic validation of drug trials



Dr Claire Shepherd's research studies

Key research projects conducted under the direction of Dr Claire Shepherd, Sydney Brain Bank Director:

1. Environmental toxins and brain health
2. Exploring the microbiota of the brain
3. The Neuroinflammation Research Project
4. Understanding the glymphatic system
5. Understanding the impact of head injury on brain health



Dr Claire Shepherd
Director of the Sydney Brain Bank at NeuRA.
A trained neuroscientist with a PhD in Alzheimer's disease from the University of Sheffield, UK. Claire is also the Director of the Shepherd Dementia Research Laboratory at NeuRA and lead investigator on the NeuRA Volunteers Brain Donor Program, a longitudinal research program aimed at investigating the clinical consequences of the cellular changes that occur during ageing. Claire leads a clinicopathological program on environmental factors—including repetitive head injury and plastic exposure—on brain health. Her research is highly collaborative and spans academic and industry sectors and has generated articles in high impact international journals and considerable interest in the public sector.