Neuroscience Research Australia
Discover. Conquer. Cure.

SYDNEY BRAIN BANK (SBB)

Guidelines for Researchers

"Annexure A"

Updated December 2020

Introduction

The Sydney Brain Bank (SBB) is located at Neuroscience Research Australia (NeuRA). Our aim is to provide Australian and international researchers with access to well characterised post-mortem human central nervous system tissue through a streamlined online process.

Cases Available

Only tissue from adult subjects (aged 18+ years) are collected. Material currently collected by the SBB include cases with dementia and movement disorders, as well as normal controls. These cases are recruited through a number of prospective brain donor programs. Further information about the donor programs can be found on the SBB website. All cases are clinically and pathologically characterised. The tissue is suitable for genomic, neuroanatomical, neuropathological, neuropharmacological and neurochemical studies.

Accessing Tissue from the SBB

Initial enquiry

Researchers may submit an enquiry regarding their tissue requirements through the SBB tissue request website. The tissue manager will assess each enquiry and ascertain the availability of tissue. Researchers will be advised if there are any issues with tissue supply. If the enquiry is feasible the researcher will be made aware of the SBB policy on cost recovery and the need for a Tissue Transfer Agreement (TTA) to be signed following approval of a tissue request. Once these items have been discussed and agreed by the researcher, a tissue application form will be made available for completion online. Please ensure the Principal Investigator submits the application, as only the initiating individual will have access to the online application. The Principal Investigator should be the person responsible for the study. For student projects, the supervisor or a post-doctoral researcher with relevant expertise in the area should submit the application. The Principal Investigator will need to submit a biosketch, which will be used to assess their expertise and ability to undertake the research.

Other options are available at the enquiry phase:

1. Provision of a letter of support to confirm availability of tissue for granting bodies or Institutional Human Research Ethics Committee. An estimate of cost recovery will be included in this letter.

2. Provision of limited ‘trial’ tissue for the purpose of developing new techniques or gaining preliminary data for power analyses. This tissue is from cases that have not met

diagnostic criteria but are still suitable for this purpose. Requests for trial tissue require timely feedback to the SBB on outcomes and are expected to progress to a full tissue application if the trial is successful. It would not be expected that data from trial tissue would be suitable for publication.

Application process

Once an online application is initiated, the Principal Investigator must complete all sections of the application, as follows:

- Principal Investigator and all Co-Investigator details. Note that all people involved in the project, including students, must be named on the application. *Please note that a student is not eligible to act as Principal Investigator on any application.*
- Biosketch of Principal Investigator, including summary of positions held, key publications, research expertise and project keywords (these details may be entered by completing the "***My Profile***" section online).
- Project details, including funding details and start/completion dates of project.
- Tissue requirements, including case information required. **Before completing your application, please ensure you have read the Guidelines for Experimental Design and Assessment**, which can be downloaded from the SBB website. Important considerations when requesting tissue for your study:
    - the total number of cases required for statistical analysis. It is highly recommended that a power analysis based on reasonable assumptions is included. Examples of power analyses are provided in the Guidelines for Experimental Design and Assessment to assist with your study design and application. Requests for smaller numbers of cases to carry out a pilot study can be made (see ***Pilot Studies*** below).
    - the type/s of tissue requested i.e fresh-frozen, formalin fixed, paraffin-embedded sections
    - region/s of the brain required for study
    - the amount of tissue requested with justification of the weight or number of sections based on preliminary work. (e.g. yields of extracted protein, RNA; number of stains)

Please note: the type and amount of tissue requested must accurately reflect what is required to complete the project using the methodology described. Requests for larger amounts of tissue will not be filled.

- Research summary, including an uploaded project outline. Please use the SBB template (available on the online portal) to complete your project outline. Ensure you complete all relevant sections of the application as incomplete applications cannot be processed. If the research is a significant part of a peer reviewed project grant, providing the 1-2 page summary of the grant application and previous peer review assessment/s with the tissue request will expedite the review process. Projects forming part of a successful program or fellowship grant cannot be considered for expedited review as specific project details and research methods are not outlined in these applications.
- Proof of ethics approval for the project. All people involved in the project, including students, must be named on the ethics approval. Applications for tissue will not be considered unless accompanied by appropriate ethics approval or an institutional letter stating that approval is not required.

Assistance can be sought at any time via the online messaging system if there are any problems with the application process.

Pilot studies

Researchers may request tissue for the purpose of carrying out a pilot study as part of a two-stage study design. The approval for a pilot study differs from approval for trial tissue to be used for technical and/or statistical purposes, with pilot study approval given by the SBB Scientific Review Committee (SRC) only following approval of the full two-staged project in its entirety. The scientific rationale, aims and hypothesis of the full two-staged project must be provided and justification concerning the need for an initial pilot study must be included in the project outline. If no research outcomes are forthcoming from the initial pilot study in the timeframes agreed on, the researcher will be asked to provide reasons for the lack of outcomes in their annual evaluation review. Any requests for further tissue to complete the study will be considered as a new application.

Where necessary, the SRC may also request a two-stage study design with an initial pilot study prior to supplying tissue requested for a full study.

Review process and timing

The review process takes approximately 4 weeks, however may take longer at busy times (e.g. Feb-May when many student projects start) or if the review process identifies that additional information is required.

The SRC are independent researchers with expertise in the field of neuroscience and tissue-based research. All assessments are performed confidentially and independently of brain bank staff. The independent Chair of the SRC ratifies the final recommendation of the SRC members in order to ensure objective and thorough review of all applications. Only meritorious research projects will be approved. Research projects that have already been peer-reviewed and approved as part of an external, competitive grant funding process will be subject to an expedited review procedure. Projects associated with program grant or fellowship applications will not be eligible for expedited review.

Tissue Transfer Agreements and timing

All researchers involved in the project and their institution must sign a TTA prior to the supply of tissue. If the project requires tissue and/or progeny to be sent to investigator/s at other institution/s (details of which must be provided in the tissue application), an adhesion agreement must also be signed. The time taken to sign the TTA is dependent on processes in the recipient institution.

Tissue supply, cost recovery and courier costs

Tissue will be supplied to researchers in as short a timeframe as possible, however may take longer if the tissue request is large or at times of peak demand. The tissue manager will advise if there will be any delays to tissue supply following receipt of the completed TTA. Australian law clearly prohibits the sale of human tissues. However, cost recovery is necessary to offset the considerable operational expenditure by the SBB associated with the personnel and consumables necessary to collect, process, characterise, and store the tissue, as well as the data management and quality assurance systems required. Access rates for these services are in accordance with the Australian Brain Banks Network (ABBN) National Access Policy (available on request). Please contact us to obtain an estimate of cost recovery prior to submitting any grant application to fund a project requiring human brain tissue from the SBB (or request a letter of support online).

All courier charges are the responsibility of the requesting researcher and should also be included as a budget item in any grant application requiring human brain tissue from the SBB. The Principal Investigator and their institution are also responsible for complying with appropriate customs and

other regulations for the transportation and importation of human tissue within or from Australia. The Principal Investigator is also responsible for any transport costs associated with returning unused tissue to the SBB.

Use of tissue and amendments to approved projects

The tissue, including any progeny and unmodified derivatives (see definitions below) must only be used for the project described in the application. It must not be used for any other project, or be passed to any third party who is not named on the tissue request. Any proposed modification to an approved project must be formally assessed by the SBB Amendment Review Panel (ARP) and decisions ratified by the Chair of the SRC. An amendment to the original request may be submitted via the online system where researchers wish to;

a) Notify the SBB about the addition of researchers or when an investigator who is using the tissue moves to a different institution (note that AP review is not required for addition of researchers);
b) Request additional tissue for studies that are within the scientific scope and aims of the original application and are necessary for completion and publication of the original study. A new tissue request may be required if additional anatomical regions or cohorts with a different disease classification are requested;
c) Request permission to use remaining tissue, including any progeny and unmodified derivatives for purposes other than those described in the original application. A new TTA will be required.

   If you are unsure about whether your application fits the amendment criteria, please contact the SBB. If the original project was approved more than 5 years prior, or if 3 or more amendments relating to the use of tissue have already been submitted (there is no limit to amendments relating to changes in personnel), please discuss the application with the SBB prior to submission. Any other modifications to the original requests should be discussed with the SBB.

Safety

The SBB is aware of the dangers and risks to researchers from potentially infectious human material. Within the SBB, the tissue is handled according to Institutional Work Health and Safety guidelines. While every effort is made to exclude infectious cases, we cannot guarantee that cases are not infectious. *We would like to highlight the importance of handling human brain tissue as being potentially infectious at all times.* Researchers accessing the tissue from the SBB should

comply with handling procedures of their institution(s). It is the Principal Investigators' responsibility to ensure that adequate safety information and necessary training are provided before co-investigators (including students) can use the tissue. It is recommended that any person working with human tissue have hepatitis immune status verified and undergo vaccination if necessary.

Case information available for researchers

The information available to investigators includes age, gender, disease duration, cause of death, post-mortem delay, fresh tissue pH and neuropathological disease classification. Any additional clinical information remains the intellectual property of the recruiting brain donor program. Researchers requesting additional clinical information will be referred to the co-ordinator of the recruiting brain donor program/s to obtain approval to access this information. The tissue request will not be considered until this approval is granted. Where clinical information is provided, the recruiting brain donor program may negotiate authorship with the Principal Investigator. Similarly, if additional pathological information is required this will be subject to negotiation and approval from the SBB and may require authorship.

Acknowledgements

Researchers must acknowledge the SBB in all oral and written presentations and publications resulting from use of the tissue and/or progeny. Failure to comply with this requirement will jeopardise future access to SBB tissues. Wording of the required acknowledgements will be provided in the TTA and are as follows:

> ***"****Tissues were received from the Sydney Brain Bank which is supported by Neuroscience Research Australia."*

Reporting requirements

Principal Investigators must provide an annual report on the progress and outcomes of the project. These reports must identify all presentations and publications arising from the use of the materials. Annual reports are required until completion of the project and until all research outcomes have been published.

Annual audits will be performed to identify users who do not return their evaluations and closed projects with no research outputs. Users may be blocked from accessing the resource if evaluations and research outcomes are not forthcoming.

Abbreviations

ABBN	Australian Brain Bank Network
ARP	Amendment Review Panel
NeuRA	Neuroscience Research Australia
SBB	Sydney Brain Bank
SRC	Scientific Review Committee
TTA	Tissue Transfer Agreement

Definitions:

Modifications means any substances created by the Recipient through use of the Tissue which contain or incorporate the Tissue.

Progeny means an unmodified descendant from the Tissue, such as virus from virus, cell from cell, organism from organism.

Unmodified Derivatives means substances created by Recipient which constitute an unmodified functional sub-unit or an expression product of the Tissue, for example: sub-clones of unmodified cell lines; purified or fractionated sub-sets of the Tissue; proteins expressed from DNA and/or RNA; DNA or RNA supplied by Provider; polyclonal and/or monoclonal antibodies secreted by a hybridoma cell lines; or sub-sets of the Tissue such as novel plasmids or vectors.

Third Party – any persons not named on the tissue request or amendment.

Contact details

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