

Maryland Brain Collection (MBC) Policies and Guidelines

Overview

The Maryland Brain Collection (MBC) is a not-for-profit repository of post-mortem human brain tissue developed and maintained by the Maryland Psychiatric Research Center (MPRC) at the University of Maryland School of Medicine. Established in 1986, it was founded by MPRC leadership to promote brain tissue research in schizophrenia and related disorders. The MBC is one of the largest schizophrenia brain collections in the world and provides researchers with tissue to advance clinical understanding of schizophrenia and related psychoses.

MBC is IRB approved and operates in collaboration with the Office of the Chief Medical Examiner (OCME) of Maryland and the Lieber Institute for Brain Development. It functions independently as an affiliate of the NIH NeuroBioBank.

The collection emphasizes high-quality clinical information and frozen brain specimens, with samples ascertained with low post-mortem intervals and stored at minus 80 degrees Celsius. Tissues are available both from individuals diagnosed with schizophrenia and controls.

Tissue Access and Request Process

Researchers can submit tissue requests by following the link provided on the MBC website. While brain tissue itself is not sold, a standard processing fee of \$250 per tissue sample is charged per sample. This fee supports administrative and technical services including diagnostic assessment, storage, dissection, and data curation. In limited circumstances, the tissue processing fee may be waived or reduced at the discretion of the MBC Steering Committee (MBCSC). Any such reductions must be documented in MBCSC meeting minutes.

Guidelines

Given the limited nature of the resource and the intensive work involved in its maintenance, the following policies apply to ensure responsible and collaborative scientific use.

Application and Review

All tissue requests - both internal to MPRC/UMB and external - must be submitted through a formal application process. Applications are reviewed by the MBCSC. Requests are accepted from investigators affiliated with recognized scientific institutions, organizations, nonprofits and industry. Approved tissue must be used only for the research described in the submitted application. It may not be shared with other investigators or used in collaboration with additional commercial entities without written approval from the MBC.

Confidentiality and Data Use

The MBC distributes de-identified, coded tissue and clinical data. All data must remain confidential and may not be disclosed to third parties without explicit approval from all relevant parties. Data available includes age, race, sex, illicit drugs, etc.

Scientific and Budget Requirements

Requests must be based on clearly defined scientific hypotheses and objectives. Investigators are encouraged to consult with an MBCSC member before submitting proposals to clarify the scope of work and financial obligations. If tissue is to be used in a grant proposal, the request for a support letter should be submitted at least six weeks before the grant submission deadline. A budget that includes MBC costs should be submitted. Researchers are responsible for any shipping costs that are incurred.

Review Timeline and Approval

Requests are reviewed by the MBCSC with determinations usually made within 1 month. The Committee may decline requests for various reasons that do not necessarily reflect insufficient scientific merit, such as lack of tissue availability or misalignment with the MBC mission. The submitter will be notified by email. A Material Transfer Agreement (MTA) must be executed before the tissue request can be fulfilled. Once the tissue request is fulfilled, an invoice will be sent to the requester. Tissues will be disbursed upon receipt of payment of the invoice or execution of a valid Purchase Order.

Collaboration, Data Sharing, and Authorship

Tissue requests may be considered scientific collaborations. The MBC may participate in data analysis and interpretation. If this is the case, authorship and acknowledgment arrangements must be discussed and agreed upon in advance of any presentations, abstracts, or manuscripts that involve MBC collaborations of tissue or data.

Biosafety and Handling

All tissue is handled using universal precautions. The MBC cannot be held liable for infectious materials, and we recommend universal precautions with all brain tissue.

Material Transfer

For investigators outside the University of Maryland, Baltimore (UMB), a fully executed MTA is required before samples can be shipped. The MBC will initiate the MTA with the recipient institution.

Return and Reuse of Tissue

Tissue can only be used for the requested experiments. All unused tissue should be properly discarded. Investigators wishing to conduct follow-up studies must submit a new application or an amendment.

Internal Requests

Requests from within UMB are also reviewed by the MBCSC. Fee reductions or waivers are possible for UMB investigators if collaborating with MPRC faculty but are subject to MBCSC majority vote.

Acknowledgment Requirements

The MBC must be acknowledged in all scientific presentations, abstracts, and publications that include data or results obtained using MBC tissue.