MCRC Biobank Access Policy

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1. Access specifics

Applying to the Biobank

To access samples from the MCRC Biobank, a Biobank application must be submitted. Further details about the application process, ethics approval and how applications are reviewed are detailed in Section 2 of the Access Policy.

Where you may intend to seek MCRC Biobank support for an upcoming project, it is strongly recommended that you engage the Biobank at the **earliest possible opportunity.** This would normally be at the project design and funding application stage.

Things to consider may include:

- Whether there are sufficient samples available (or likely to be available) for the proposed tumour types required. Sample availability may be impacted by many variables, including but not limited to; consent rate, disease incidence, treatment pathways, tumour size and competing projects.

- Whether there is sufficient funding budgeted to enable the sample collection/provision elements of the project.

- Where the project is proposing new/novel downstream analysis techniques, the Biobank strongly recommend carrying out a method development project in the first instance to determine the minimum viable criteria for sample suitability.

- For fresh tissue projects, the size of tumour tissue required should be carefully considered - please be aware that for most tumour types, typical weights of samples available are routinely 0.5g or less.

- Whilst the Biobank may collect up to 50ml of blood at a single timepoint, it may not be clinically safe to collect this volume of blood from frail or underweight patients, especially prior to a surgical procedure.

- Numbers of surgeries per year will not easily translate to the number of samples potentially available, especially where there are strict project criteria with respect to tumour weight, ischemia time or required delivery windows. Surgical incidence data should not be used alone to design any research project.

- The lead applicant on the Biobank should be the person leading the research project with lead responsibility for the research project funding. Any IP generated as part of the Biobank project will automatically sit with the lead PI and their employing organisation.

- Where collaborations between organisations are taking place as part of a Biobank application, separate collaboration agreements may be required – these will sit with the relevant organisations' legal/contracting teams.

The Biobank are very keen to work with investigators to ensure that the appropriate level of due diligence has been applied at the project design stage to support successful project

delivery. In the first instance, please contact the Biobank Business Manager or Biobank Coordinator for an informal discussion.

Existing Banked Samples

Existing banked samples may consist of the following:

- Matched blood, urine and tissue samples from patients who have undergone surgical procedures across a variety of solid tumour indications
- Single or multi-timepoint blood samples from patients on active treatment
- Cryopreserved blood, bone marrow product from patients with a range of blood disorders
- Leftover samples from other studies or trials that have been donated to the MCRC Biobank under a specific arrangement and appropriate consent.

You may enquire directly for further details about banked samples which may be available for use by contacting the Biobank directly at the-christie.biobank@nhs.net. Please note that samples can't be ring-fenced for upcoming projects until a Biobank Project Application has been formally submitted and approved.

For rare or 'difficult to collect' cohorts, especially where significant clinical resource has been instrumental in establishing the collection, access will be granted on a collaborative basis only.

Biopsy or Pre-Treatment FFPE Samples

Should biopsy or pre-treatment FFPE samples be required (i.e. matched biopsy, primary tumour tissue or pre-treatment tissue), the Biobank can request matched FFPE samples from referring hospitals. Where this is the case, please consider the following:

- Any external block requests will be charged at a flat fee per patient, this is in addition to any other associated biobank costs.

- Final numbers for any project of this type can only be confirmed once samples have been received at the Biobank for the following reasons:

    - The location of the primary biopsy sample is not always known

    - Available samples may not contain any residual tumour

    - The sample may have already been used for an alternative study or trial

- Projects requiring external block requests will significantly extend the lead time for sample acquisition for any project, both due to the administration required to request blocks and the turnaround times of local pathology departments.

Prospective Collection Studies

The MCRC Biobank accommodates prospective and tailored collections of samples for a variety of disease types. Collections from surgical patients can generally be organised

directly through the Biobank, however any projects which require targeting specific non-surgical patient cohorts will often need clinical team support and facilitation.

Any prospective collections will require an approved Biobank application before they begin unless the following applies (reviewed on a case-by-case basis):

- The tumour type is rare and/or cohort numbers will be small and thus a collection needs to be established in the first instance
- There is funding available to support the prospective collection of samples or it is part of the Manchester Cancer Research Centre strategy
- Samples will remain stored in the Biobank until an application is approved for their use
- A Biobank Application is submitted within 12 months of the collection being established

The Biobank can collect and/or process a variety of additional sample types in line with existing Patient Information Sheet, Consent Forms and Biobank SOPs. Other than blood, tissue and urine which are explicitly stated, other sample types may include waste products from clinical procedures (e.g. drain fluid) or samples which can be provided without introducing additional risks to the patient e.g. donation of saliva or faecal samples.

Please note:

- ***The MCRC Biobank is only permitted to collect and store samples from patients who are alive or were living at the point of sample donation (e.g., for retrospective cohorts).***

- ***Where sample collection requires an additional patient intervention that is not stated in the Patient Information Sheet and Consent Form, additional project specific ethics will need to be obtained with the relevant patient literature and appropriate research costings for additional interventions.***

- ***The Biobank operational model is not able to support blood PBMC processing for solid tumour patients, cell culture or any processing of faecal samples. Should researchers require these sample types, fresh samples can be provided under an approved Biobank application, or the Biobank may be able to support with direct freezing samples in appropriate media (reviewed on a case-by-case basis).***

For any prospective collection project, please contact the Biobank to determine:

- Whether your request can be accommodated within the current resource levels
- Whether there are any existing studies where prospective collection for your interested cohort may already be taking place

Where the Biobank have reached capacity (in either resource or with respect to sample availability), your project will be placed on a ‘waiting list’ and will begin once either resource becomes available or competing projects end.

Where different CRUK funded researchers are interested in the same sample types, every effort should be made to collaborate to maximise the availability of samples.

Timelines

Turnaround times for accessing Biobank samples may vary dependent on the complexity of the study and whether banked or prospective samples are being requested. If you have specific deadlines for your research project, please be clear about these in the application form or prior to the application process.

Charges

- The MCRC Biobank operates a cost recovery pricing model for services provided
- New commercial applicants will be subject to a credit check prior to supply of any samples
- Biobank price lists are available on request, please confirm who is funding the work so the correct price list can be shared
- All Biobank applications will be charged an application fee of £150. A purchase order number or internal budget code should be supplied upon application
- Upon approval a set-up fee will be applied according to the relevant price list
- All amendments will be charged an application fee of £150 and new workstreams may incur an additional set-up fee depending on the nature and complexity of the amendment
- For most projects, fees will be charged on a per sample basis according to the price list. However, some projects may require a 'from scratch' costing to be developed or they will be linked to 'lump sum' funding arrangements. This will be agreed as part of the approval process.
- Where clinical teams requesting samples have supported elements of project delivery e.g. consenting patients on behalf of the Biobank, relevant discounts will be applied to cost recovery charges
- For all new applications and amendments, a 'call-off' purchase order or internal budget code will be requested, depending on the type of project, for either;
    - the whole estimated study costs
    - study set-up fee and/or an initial sample provision; in this case top-up POs will be requested throughout the life of the project when required.
- Actual costs for all projects will usually be billed in retrospect each quarter. These will be charged against the PO in place and/or a new PO will be requested where relevant.

Tissue Microarrays and Archive Samples

The Biobank may accept applications from researchers wishing to access tissue microarrays (TMAs) and/or mine samples from the archive (pathology or existing research), however

these types of projects will be judged on a project-by-project basis due to the additional resources these require. Researchers wishing to carry out these types of projects must approach the MCRC Biobank for initial discussions before applying.

For researchers who wish to commission the build of a TMA for unspecified future work, a TMA Build Application should be submitted.

All TMAs must be marked up by a qualified pathologist before the TMA build is conducted. Applicants should detail which pathologist they plan to collaborate with for their TMA build.

The cost of TMA projects will also be judged on a project-by-project basis, however there will be a flat rate hourly fee for the construction of the TMA costed in. The related sample acquisition cost for each TMA project will vary dependant on the number of cores per TMA and where the samples have come from (Biobank, pathology, research archive etc).

Please note: All TMA blocks constructed through the Biobank will remain in the MCRC Biobank as a resource for all Biobank applicants. Sections will be released for individual studies rather than the whole TMA block, however, where required, the TMA can be 'reserved' for that study until it has been completed.

Research Biopsies

Whilst most of the tissue samples that the Biobank collects will be taken during an existing clinical procedure, the mechanism to collect additional research biopsies was built into the Biobank consent model from October 2022. Historically these types of studies required an additional project specific ethics application.

Please note that all patients will need to be assessed individually for their suitability for a research biopsy by the clinical care team and any other clinicians carrying out the procedure. Patients can also decline any individual approach for a research biopsy regardless of their overarching consent to donate any research biopsies to the MCRC Biobank.

If you would like to consider requesting research biopsies to support your scientific question, please ensure your Biobank application includes:

- A clear rationale for requesting research biopsies and why your research question cannot be satisfied with samples that are collected during the course of routine care
- The name of a nominated individual within the clinical care team of each relevant disease area who will assess the patient's clinical suitability for a research biopsy
- An agreement in principle from the relevant service departments (e.g., surgery and pathology) that research biopsies can be supported
- Confirmation of funding arrangements for any additional procedures and reimbursement of expenses to patients for any additional expenses incurred

Please note:

- ***Local set-up and capability and capacity arrangements will need to be implemented for any Biobank project which includes research biopsies to ensure that these can be accommodated, and costings can be included for any above SOC procedures***

- ***Research biopsies carried out using CT cannot be requested under this model as the Biobank aren't able to apply for overarching Radiation Assurance which is mandatory when patients are exposed to additional ionising radiation above standard of care. Additional project specific ethics approval would need to be sought in this instance.***

Data

Accompanying clinical information required with samples should be clearly requested on the application form. Baseline data available includes of the following:

- Demographic information (age & gender)
- Treatment history (as available)
- Diagnosis
- Family history (as available)
- Medical history (as available)
- Histopathological information (including stage/grade as available)
- Sample metadata

Where further information is required e.g. follow-up and survival data, this may be requested. However, please consider the following:

- Any follow-up data requires manual data collection from clinical systems and there will be a lead time and additional costs for any such requests
- The quality and completeness of the source data can vary significantly dependent on the hospital system from which is it accessed, the disease subtype and the age of the sample – the Biobank can only provide the data that is available
- It is common for patients to be treated locally for some part of their treatment and this information may not be available in the systems the Biobank can access
- Charges for additional data collection will be applied.

Where requests require selection of samples based on response to treatment, this will require a direct clinical team collaboration to identify suitable cohorts.

2. Applications for use of samples

Submitting an Application

Researchers wishing to use samples from the Biobank may first make an expression of interest to the MCRC Biobank by contacting the Biobank Business Manager and/or the Biobank Coordinator.

To submit a formal research application, each researcher will need to write a full scientific proposal using the online MCRC Biobank Project Application Form.

The Biobank will also accept applications for use of samples for QC and method development work. This allows access to samples for internal projects where initial data needs to be generated to inform future research work or provide a validation cohort for specific purposes e.g. for a piece of new technology. These types of projects do not allow for any research publications.

For researchers wishing to request Biobank support for any element of an existing ethically approved study, please consult the Secondary Biobanking Guidance Document and Application Form.

Collaborative Projects

Where representatives from different organisations are collaborating on a Biobank Application, please note following the guidance below:

- The PI on the Biobank application should be a representative from the organisation that is initiating or leading the project for which samples are required. They are also normally the direct sample recipient and are holders of the research funding / lead on any related grant application.
    - Local collaborators should be named as co-investigators on the Biobank Application Form (this would be equivalent to the local PI on a multi-centre study ethically approved study).

- Where a local investigator is working **jointly** on a scientific programme of work with another organisation, it may be appropriate for them act as Biobank PI. This should be discussed and agreed with the Biobank prior to submitting the Biobank application.

- By default, all IP generated from work carried out on Biobank samples will sit with the PI's organisation. Where multiple organisations are collaborating, a separate collaboration agreement may need to be in place between organisations reflecting all IP and funding arrangements for any collaborative work. This falls outside of the Biobank's remit and should be discussed with the relevant contracting teams of each organisation. A copy of any agreement may be requested as part of the Biobank approval process.

- The PI is responsible for ensuring all third-party agreements / SLAs for procured / out-sourced services associated with the downstream use of Biobank samples are in place. The Biobank MTA will only cover the regulatory aspects of sample storage in line with the regulatory framework associated with using samples from NHS patients.

Ethics Approval & Consent

The MCRC Biobank has generic ethics approval which allows the ethics approval to be conferred to researchers who have an approved application to use samples from the MCRC Biobank if the research falls within the broad remit of what was written in the Biobank ethics application. The ethics currently covers a wide variety of research areas and testing as detailed below:

- Genomics
- Gene expression using microarrays
- Proteomics
- Metabolite measurements
- Biomarker measurements
- Immunohistochemistry
- Western blotting and ELISA measurements of proteins

- Single nucleotide polymorphism analysis
- Genomic profiling and direct mutational analysis
- Growth and subsequent biological analysis of primary tumour and normal cells
- Generation of cell lines from primary samples
- For cryopreserved blood and/or bone marrow cells as well as fresh tissue/cells, in vitro and in vivo experiments may be performed to investigate cell function

Please note: MCRC Biobank samples are only eligible for use in cancer research projects. Any applications for non-cancer research projects will not be accepted by the MCRC Biobank.

When patients are consented for the Biobank, they have the option to consent or not for various types of research or procedures. If, for example, a patient opts out of commercial research, or genetic analysis of their samples, they may not be used for this purpose.

Where samples may be implanted into mice, the Biobank will need to consent patients using a specific animal research form.

All consent requirements should be accurately detailed in the Biobank Application Form.

Who will review applications?

Biobank applications required appropriate scientific peer review to ensure that the samples are being utilised for good quality research. Where existing peer review has already taken place for a research project, this can be submitted as evidence as part of the Biobank Application Process and additional peer review won't be required.

Where existing peer review is not in place, this will form part of the Biobank Application process. The Biobank Application Form will ask for the following:

- A minimum of 3 suggested reviewers (up to 4 can be suggested).
- A declaration that there is no conflict of interest for the named reviewers.

In addition to the scientific review, applications will then be subjected to an operational and feasibility review by the Biobank Team.

Where there has been a delay in obtaining a review for any study, a minimum of 2 reviews may be accepted provided the scores are sufficiently high.

QC/Method Development applications don't require scientific peer review.

How will the peer review take place?

Where existing peer review is not in place, reviewers will be expected to consider each application, based on 3 distinct areas, with an overall score out of 10 to be given to the project:

- Quality
- Importance
- Impact

The MCRC Biobank scoring system and form (based on the MRC grant application scoring system) is attached as Appendix 1.

Operational and Feasibility Assessment

The MCRC Biobank team will consider the project scientific peer review at a standing weekly meeting, as well as any project logistics and operational issues which may impact on the Biobank's ability to deliver the samples requested in the application.

The Biobank will also consider whether adequate funding is available to complete all aspects of the study, which should be detailed in full in the relevant section of the application form. The applicant should clearly state the source of funding and how much is available for all aspects of the work proposed. If funding is dependent on a successful Biobank application, this should be clearly stated in the proposal so that conditional approval can be offered.

Decisions on Applications

Decisions on applications will fall into one of the following categories:

- Approved with no alterations/conditions
- Approved with conditions/minor changes required
- Approval not granted – major changes and/or resubmission required
- Approval not granted – Biobank will not consider supplying samples for this type of study

The applicant will receive a letter informing them of the decision and any related conditions. If the proposal has not been approved, clear reasons will be given.

Material Transfer Agreement (MTA)

Once researchers have responded to any comments raised during the review process, the MCRC Biobank can send an MTA to the applicant Principal Investigator (PI) for review and completion. The PI must return a copy of the MTA for countersignature by the MCRC Biobank Business Manager before the project can begin.

Amendments

Samples provided by the MCRC Biobank to applicants may only be used in connection with research covered under the applicant's approved application. Samples may not at any time be transferred or shared with another investigator or site which has not been detailed within the applicant's approved application. To add additional methods to the application which do not alter the aims of the study, or additional collaborators or sites for analysis of samples, an amendment will need to be submitted to the MCRC Biobank.

Once the Biobank have made a decision, the applicants will be notified in the form of a letter with a review form including any comments raised (if applicable). The applicants will be provided with an updated MTA, if required, for review and signature.

Project Review

All projects which have a proposed endpoint surpassing 3 years (or proposed end date as detailed in the application for those submitted from April 2024) will be contacted to determine whether the project needs extending via an amendment, or whether the project can be closed and remaining samples can be returned or disposed.

Publications

Researchers are expected to acknowledge the MCRC Biobank in any publications which are based on data derived from research involving samples sourced from the MCRC Biobank, by including the following in the acknowledgment section of publications: “Research samples were obtained from the Manchester Cancer Research Centre (MCRC) Biobank, UK. The MCRC Biobank holds a generic ethics approval which can confer this approval to users of banked samples via the MCRC Biobank Access Policy.”

APPENDIX 1

MCRC Biobank Project Review Criteria

Score	Indicators
Excellent quality research	
10	Exceptional.
9	Excellent, research which is (or will be) be at the forefront internationally. Addresses very important medical or scientific questions. Likely to have a high impact on medical practice, or on the relevant scientific field.
Good quality research	
8	Good, bordering on excellent.
7	Good quality research which is internationally competitive and at the forefront of UK work. Important research which will be highly productive, and likely to have a significant impact on medical practice, if applicable.
6	Good quality research, on the border between national and international standing.
5	Good quality research which is at least nationally competitive. Addresses reasonably important questions, and will be productive. Good prospects of making some impact on medical practice, or on the relevant scientific field. Any significant concerns about the research approach can be corrected, easily.
Potentially useful study	
4	Potentially useful, bordering on good quality research.
3	Research plans which contain some good ideas or opportunities, but which are very unlikely to be productive and/or successful. Major improvements would be needed to make the proposal competitive.
Unacceptable	
2	Potentially useful in some aspects, bordering on unacceptable in others.
1	Serious scientific or ethical concerns. Should not be approved.