Access to human biomaterials and associated data

UoB-ATF-POL-0002

Purpose:

This document describes the policy governing decisions made about the release of human biomaterials and associated data from the Human Biomaterials Resource Centre for biomedical research. It is important that a clear policy exists to support the application and review process and which will therefore enable decisions to be made that are in accordance with the informed consent given by the donor and which maximise the availability and use of the sample collection. This is particularly important where there may be a limited resource and/or competition from different research groups.

Scope:

The policy covers decisions made during the review of applications for access to human biomaterials and associated data which have been collected (or received) and stored under the governance of the Human Biomaterials Resource Centre. It does not cover access to samples or data being held as part of a specific ethically approved project or clinical trial.

Implementation plan:

This policy will be implemented directly after the issue date.

Issue date:

Date activated on Q-Pulse

Stakeholders:

Include all stakeholders relevant to the process

- ☐ All HBRC staff
- ☐ Designated Individual
- ☐ Donors and researchers
- ☐ Members of the Access Review Panel

Abbreviations and Definitions:

Term	Description
ARP	Access Review Panel: a panel of lay members, professionals, academics, and clinicians, working to the same SOPs as an NHS REC to approve individual applications made to the HBRC
CRUK	Cancer Research UK
CSF	Cerebrospinal fluid
Designated Individual	A named individual within an HTA licensed organisation who is responsible for, and supervises, the activities being carried out under licence.
HBRC	Human Biomaterials Resource Centre, the UoB's main research tissue bank licensed by the HTA
HTA	Human Tissue Authority
HTAct	Human Tissue Act
IP	Intellectual Property: intangible property that is the result of creativity, such as patents, copyrights, etc.
MRC	Medical Research Council
NHSBT	NHS Blood and Transfusion Service
REC	Research Ethics Committee: for the purposes of the HTAct, a REC established under and operating to the standards set out in the governance arrangements issued by the UK Health Departments, or an ethics committee recognised by United Kingdom Ethics Committee Authority (UKECA), to review clinical trials of investigational medicinal products under the Medicines for Human Use (Clinical Trials) Regulations 2004.
Relevant Material	Material, defined by the HTAct, that has come from the human body and consists of, or includes, human cells. Cell lines that have divided outside the human body and acellular derivatives (e.g. DNA, RNA, protein) are excluded, as is hair and nail from the living. Live gametes and embryos are also excluded as they are covered by regulation under the Human Fertilisation and Embryology Act 1990.
SOP	Standard Operating Procedure: a written procedure used to achieve uniformity of the performance of a specific function. SOPs define tasks, allocate responsibilities, detail processes, indicate documents (e.g. forms, checklists) to be used, and cross-reference other work instructions and guidance or policy documents. They are documents against which the HBRC may be audited or inspected.
Sponsor	An individual, organisation or group taking responsibility for the launch, management, and/or financing of a research study. Not to be confused with a Funder, which simply provides financial support for the research.
UHBFT	University Hospitals of Birmingham NHS Foundation Trust
UoB	University of Birmingham

See also the HTA Code of Practice A, *Glossary*

Background:

Description of the collection:

- ☐ The main sample collection of the Human Biomaterials Resource Centre (HBRC) comprises human biomaterials collected from the living (predominantly donors living in the West Midlands).
- ☐ Donors include patients within a number of disease settings (including rare conditions and special characteristics), and healthy volunteers.
- ☐ The HBRC may also accept human biomaterials taken from historical collections, e.g. when specific ethical approval has expired and there is consent for unspecified future research, or when samples have been imported under an HTA licence, or when NHS Blood and Transfusion Service (NHSBT) has confirmed availability from its own existing collections/testing archives.
- ☐ Furthermore, the HBRC may accept a small amount of material from the deceased: this is only accepted following the express wishes relatives, and if costs permit. Acceptance may be directly from a licensed mortuary, via the NHS Blood and Transfusion Service (NHSBT), or via another study (an existing collection).
- ☐ In addition, the HBRC may approach NHS Cellular Pathology/Haematology/Microbiology laboratories to access samples surplus to diagnosis from diagnostic archives. Samples are usually formalin-fixed paraffin-embedded tissue, but they may also comprise fixed specimens, archived blood derivatives, archived swabs, needle washings, etc..
- ☐ Human biomaterials therefore originate from a wide variety of anatomical sites and may include:
    - Tissue derived from primary/metastatic cancers and other diseases, adjacent normal tissues, and lymph nodes
    - Fresh and fresh-frozen tissue
    - Formalin-fixed paraffin-embedded blocks
    - Tissue sections made from either of the above
    - Blood samples and blood derivatives
    - Urine samples and urine derivatives
    - Other bodily fluids e.g. ascites, saliva, CSF
    - Placenta, umbilical cord and cord blood
    - Part processed samples (e.g. DNA, RNA, primary cells and cell cultures).

Policy:

Eligibility for access:

- ☐ Prospective samples are collected with generic enduring consent which explicitly covers genetic studies, research which may involve animals, in vitro immortalisation, transfer to researchers outside of Birmingham (including overseas), method validation, quality assurance, and research involving commercial collaborators. Applications are therefore welcome for studies in all areas.
- ☐ Human biomaterials held in the HBRC originating from historical collections may already have generic enduring consent, or they may come with consent for use in research appropriate at the time of acquisition. The HBRC will generally not seek additional or further consent, and these samples will be made available to researchers in an anonymised form providing the research is approved by an appropriate Research Ethics Committee (REC). Again, applications for access to human biomaterials from these existing collections are welcome for studies in all areas.
- ☐ Where a sample forms part of a diagnostic archive, it is likely that only a portion will be released to a researcher. The remainder will be retained by the originating NHS laboratory.
- ☐ Where demand for material exceeds availability, priority will be given to research of high scientific merit involving local researchers and their collaborators, and which has been

externally peer-reviewed and funded. Where multiple studies meet those criteria, material will be offered in rotation, such that access is fair to all.

- ☐ The HBRC has held generic Research Tissue Bank ethical approval from an NHS REC (North-West – Haydock) continuously since 2010. The approval references are (in chronological order):
  - 09/H1010/75
  - 15/NW/0079
  - 20/NW/0001
  - 25/NW/0013
- ☐ Approval covers the provision of human biomaterials and associated data for a broad spectrum of biomedical research concerned with the pathogenesis, diagnosis and treatment of many diseases. Applications made to the HBRC under an older approval remain valid under a newer one, providing they have not been closed in the meantime.
- ☐ Research protocols that fall outside of the remit of the HBRC's ethical approval are required to seek separate specific approval from a REC. This will also be required where identifiable data is required.
- ☐ Researchers wishing to apply for access to the HBRC collection should be employees of a recognised academic institution or NHS organisation, or of a commercial research organisation with experience in the relevant research area.
- ☐ The HBRC will not supply human biomaterials for the purposes of human application, reproductive cloning, therapeutic cloning, and derivation of stem cells for use in treatment, or research that is not related to healthcare such as the testing or safety of cosmetics or other consumer products. The HBRC will not supply human biomaterials for onward selling for profit of the biomaterials or their derivatives.
- ☐ For the avoidance of doubt, the HBRC adheres robustly to HTA guidance regarding storage and use of biomaterials.
  - Access to, storage, and use of human material *not* regarded as 'Relevant Material' (e.g. serum, platelet-free plasma, extracted DNA, mitochondria) will – in broad terms – be viewed no differently from access to, storage, and use of Relevant Material for method validations and research.
  - Notwithstanding, HBRC will regard cell lines at/beyond second passage, or subcellular components used solely for quality control, as no longer requiring ethical approval for their storage and use.
  - Notwithstanding, it remains a condition of access that all such materials will be used only for biomedical research, and not for onward selling for profit (reasonable cost recovery is permitted).
  - For example:

Scenario	**HBRC's position regarding ethical acceptability**
Company produces a cell line during the conduct of its research. It then finds the cell line sufficiently useful that it opts to use the cell line to perform its own/contracted/collaborative research in biomedical science.	**This is allowed:** the creation of cell lines has consent, and the cell lines are being used for the common scientific good. Contracted research is permitted because the company is selling the *data* it generates from use of the cell line, not selling the cell line itself.
Company produces a cell line during the conduct of its research. It then makes the cell line available to others for free, or it licenses the cell line on a *reasonable* cost-recovery basis.	**This is acceptable:** the creation of cell lines has consent, and the cell lines are being used for the common scientific good, thereby paralleling the aims of e.g. the ECACC, with allowances made for the realities of commercial research funding.

Scenario	HBRC's position regarding ethical acceptability
Company produces a cell line during the conduct of its research. It then finds the cell line sufficiently useful that it grants permission for use in cosmetics testing.	**This is NOT allowed:** the creation of cell lines has consent, but cell lines cannot be used for purposes unrelated to healthcare research, because that would break a specific prohibition of the protocol originally giving rise to the cell line.
Company produces a cell line with the specific intent of selling it for profit.	**This is NOT allowed:** arguably this could fall outside a donor's understanding (and thereby has no consent). It also falls outside the intent of the HBRC protocol.

Applications for access:

- ☐ Researchers who wish to access the HBRC collection are encouraged to contact the HBRC for a preliminary discussion about the proposed study, the number and type of samples required, and the feasibility of access.
- ☐ Formal applications should be submitted by email using the current version of the form provided by the HBRC on request. All of the details on the form should be completed, since any missing information may cause delay.
- ☐ Applications may be submitted at any time and will be considered in the order in which they are received.
- ☐ The HBRC aims to acknowledge all applications within two weeks of receipt, and to provide a decision on validated applications within two months. In practice, a typical turnaround from receipt of validated application to decision is 4 weeks.
- ☐ Applications can be made before funding and, if relevant, before specific REC approval have been obtained. However, final HBRC approval will not be granted until these have been confirmed.
- ☐ Generally, under these circumstances, samples will not be reserved, and receipt of an application prior to confirmation of funding or ethical approval does not guarantee access to particular samples.
- ☐ If requested samples are not available when funding and other approvals are secured, the HBRC will attempt to provide similar samples, although this may not always be possible and cannot be guaranteed.
- ☐ On some occasions the HBRC may decide that it is appropriate to reserve the requested samples, e.g. where the Chief Investigator has contributed significantly to the collection.

Review of applications:

- ☐ On receipt of an application, the HBRC will check to ensure that the requested samples and associated data are available (or can be obtained prospectively during the lifetime of the study), and that all required information has been supplied.
- ☐ If samples or associated data are not available, the applicant will be notified, and wherever possible provided with details of possible alternatives. If any information is missing from the application, the applicant will be asked to supply this before the application is considered further.
- ☐ Once an application is ready for formal consideration ("validated"), the application will be submitted for review by the HBRC Access Review Panel (ARP).
    - The ARP will assess applications on the basis of availability of samples, appropriate consent, scientific validity, potential Health & Safety or Estates/Facilities issues, existing ethical approvals, and sponsorship under the UK Policy Framework for Health and Social Care Research.

- The composition of the ARP has been approved by the REC, and it includes at least one lay member, the HBRC's Designated Individual, and members of UoB/NHS professional staff.
- The ARP may also co-opt additional reviewers as appropriate, drawn from members of academic and/or clinical staff. They will be recruited when there is concern about sample availability, scientific value of the research project, or where there may be a potential conflict of interest or competing projects. Collaborations will be encouraged wherever possible.
- Review will be via a secure online discussion platform, to which only current ARP members are granted access.

☐ Of primary importance will be the need to establish the scientific merit of the research described in an application. It is anticipated that most applications will have been subject to external peer review through a competitive grant funding process (e.g. MRC, CRUK, other funding body), so no further scientific review will be considered necessary. If this is not the case, senior academics (internal or external) with the appropriate expertise and who are not involved in the application will be invited to review the application.

☐ Once the scientific merit of the application has been established, then other considerations taken into account will include: whether the proposed research is covered by the scope of the donor consent; whether it falls under the HBRC's broad Research Tissue Bank ethical approval (or has been approved by an appropriate NHS REC); whether the research has the appropriate Research Governance arrangements in place; whether it is adequately funded and resourced; and whether the research is deemed to be of sufficiently high priority in situations where there is competition for access to limited resources.

☐ If the amount of material available is limited, researchers who propose similar studies may be put in touch with a suggestion for collaboration. If they are not willing to collaborate, then both applications will still be considered.

☐ Upon approval, but before release of human biomaterials and associated data commences:

- Researchers possessing employment contracts with the University of Birmingham (substantive or honorary) are required to sign and return an HBRC standardised letter covering the Terms of Approval.
- Researchers employed by external institutions are required to ensure that an HBRC Material Transfer Agreement has been signed and returned by someone with the authority to do so.
- For the avoidance of doubt, HBRC agreements will also contain conditions relating to the release and use of clinical data (which will have been pseudonymised by HBRC to the point where it is effectively anonymous to the recipient).

Conditions of access:

☐ Application titles may be published on the HBRC's website, together with lay summaries, the names of the Chief Investigator and institutions where the work is taking place, and the materials requested. Chief Investigators who do not wish details of their study to be openly available should state this in their application and give a valid reason.

☐ Notwithstanding, the HBRC is obliged to provide this information in annual updates to the REC and/or contributing NHS Trusts, so Chief Investigators should take care to ensure these particular details are sufficiently informative, without raising issues of breached intellectual property or commercial sensitivity. The onus to achieve the right balance rests with the Chief Investigator, not the HBRC.

☐ Recipients of human biomaterials will be required to contribute towards HBRC's costs of obtaining/retrieving, processing, and dispatching them. Details of these costs will be provided during the review period, and they will also be included in the Terms of Approval (UoB researchers) or the Material Transfer Agreement (external researchers).

☐ Human biomaterials and associated data supplied by the HBRC must only be used for the biomedical research described in the application, or a subsequent amendment to it, and as approved by the HBRC. Human biomaterials will be supplied by the HBRC as received.

☐ The 'custodianship' (the nearest equivalent to 'ownership', as opposed to physical 'custody') of human biomaterials and associated data provided by the HBRC will remain with the HBRC.

- ☐ Human biomaterials and associated data supplied by the HBRC may therefore only be transferred to third parties with prior written agreement of the HBRC. (This condition also applies to transfer, in general, of derivatives made by the study.)
  - By default, third-party collaborators external to the University of Birmingham (UoB) will be asked to sign a copy of the HBRC's Material Transfer Agreement, and to provide a signed copy to the HBRC.
  - By default, third-party contractors (i.e. those with no rights to the human biomaterials, their derivatives, clinical data, and IP beyond that necessary to deliver the contracted service) will be expected to have entered into a formal agreement with the relevant institution which limits the contractor's rights accordingly. A suitable type of agreement can include, for example, the standard conditions associated with accepting a purchase order for a service.
- ☐ On no account may researchers, collaborators, or contractors attempt to identify any donor from the human biomaterials or associated data provided. Should they believe that they have inadvertently identified a donor, they must not record the identity, share the identification with any other person, or attempt to contact the donor. They must inform the HBRC and provide details of the circumstances under which it occurred, so that the HBRC can proceed appropriately.
- ☐ Although the HBRC has waived its right to ownership of any IP arising from the human biomaterials and associated data provided, such a policy does not preclude the UoB from entering into an IP agreement. Researchers must make every effort to protect IP in line with the policies of their host institution and funders, as well as the expectations of the UoB (if different).
- ☐ In keeping with the aims of the HBRC to facilitate biomedical research, Chief Investigators and collaborators are expected to submit their results as one or more peer-reviewed publications as soon as reasonable after completing their study. If they wish this period of time to be extended to protect IP, they should discuss this with the HBRC.
- ☐ On request, Chief Investigators and collaborators should provide a copy of any peer-reviewed publications based on human biomaterials and associated data provided by the HBRC. For the avoidance of doubt, this will *not* mean presentations, papers, or progress reports which are internal-only to the researcher's institution.
- ☐ Any publication or presentation (whether internal or external, peer-reviewed or not) should include an acknowledgement of the HBRC using the text:

  We gratefully acknowledge the contribution to this [study/publication/presentation] made by the University of Birmingham's Human Biomaterials Resource Centre, which was originally set up through Birmingham Science City – Experimental Medicine Network of Excellence Project.
- ☐ If consent is withdrawn for released human biomaterials or associated clinical data:
  - Chief Investigators will be informed by HBRC of the relevant sample numbers and asked to destroy any unused samples and clinical data. They will be asked to confirm that they, and their collaborators and contractors, have done so.
  - The HBRC's cost-recovery fee will be non-refundable in these circumstances.
  - For the avoidance of doubt, research data produced from samples, and associated clinical data already used by the research, need *not* be destroyed.

Completion of study:

- ☐ Once the study is complete, any remaining samples and unused associated clinical data must be destroyed, or else returned to the HBRC on request. The Chief Investigator will be required to confirm in writing that all samples have been destroyed or returned.
- ☐ On completion of the study, *but only if requested*, Chief Investigators should provide their generated research data to the HBRC for possible inclusion in the collection, unless there is a valid reason for not being able to. For the avoidance of doubt:
  - In practice a request is unlikely to be made by the HBRC, given the volume of data arising and/or potential issues of IP.
  - Nevertheless, the overarching expectation remains (in keeping with academic principles) that researchers will consider sharing their generated research data with peer scientists,

either through a collaborative study (which may or may not be via another application to the HBRC) or through a direct data-sharing agreement, as appropriate.
    - The specific nature, extent, manner, control, and costs of such data-sharing will ultimately be for the Chief Investigator and research Sponsor to determine (not the HBRC).
    - It is also recognised that genetic and imaging data can be particularly voluminous, and so the use of well-established scientific repositories is expressly approved for these types of data.
- ☐ Submission of research data to a repository or to the HBRC collection will not affect the requirement for Chief Investigators to maintain their own research records after their application's closure.

Related documents:

- ☐ ATF-QM-1 HBRC Quality Manual
- ☐ UoB-ATF-SOP-0013 Release of samples and associated data
- ☐ UoB-ATF-QCD-0143 Release of samples and associated data under HBRC ethical approval
- ☐ UoB-ATF-QCD-0075 Review of applications for access to human biomaterials and associated data

Related risk assessments:

- ☐ ATF-BR-0002 Consent

List of expected outputs

- ☐ All human biomaterials and associated data released by the HBRC will be released only for approved research in accordance with this policy document and the relevant QMS documents.

Development and Review Summary:

	Name:	Function:
Author:	Gareth Bicknell	HBRC General Manager
Reviewed by:	Brenda George	Quality / Operations Manager
Authorised by:	Chris McCabe	Designated Individual

Supersedes:
UoB-ATF-POL-0002 v3.0

Reason for update:
Implementation of CR1875 (remove reference to NHS REC member) and CR1876 (add table of guidance about acceptable v unacceptable use); additional clarity regarding sharing of results in line with academic principles.

Q-Pulse Document Distribution

Distribution requirement: (select one only)	☐ None	☒ Read & Acknowledge (Copyholder)	☐ Notification only
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	☐ All Laboratory	☐ Admin	☐ Quality
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