

## **Research Tissue Bank Management Protocol**

	Childhood Ocular Inflammatory	
Project Title:	Disease Research Tissue Biobank	
	(CHOIR)	
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**Signatures** 



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## 1 ABBREVIATIONS

Childhood Ocular Inflammatory Disease Research
Designated Individual
Principal Investigator
Good Clinical Practice
Human Tissue Act / Human Tissue Authority
Informed Consent Form
National Research Ethics Service
Participant/ Patient Information sheet
NHS Trust R&D Department
Research Ethics Committee
Research Tissue Bank
Standard Operating Procedure



#### 2 BACKGROUND

Childhood uveitis (intraocular inflammation) comprises a heterogenous group of rare disorders. The UK incidence of childhood uveitis has been indirectly estimated at 5/100,000 children per annum, consistent with other industrialised nations. These disorders are classified anatomically (anterior, intermediate or posterior structures), or by the presence of associated systemic disease. An estimated 40% to 60% of children with uveitis have Juvenile Idiopathic Arthritis (JIA) another 'umbrella term' for a group of disorders, which are characterised by chronic joint inflammation that develops under the age of 16 and persists for more than 6 weeks.

Between 10% - 25% of children affected by uveitis reach adulthood having permanently lost vision in at least one eye, and the disease can continue to be active well into adulthood. The key to preventing uveitis related blindness is prompt control of disease. Control is achieved using a combination of topical and systemic corticosteroids, systemic disease modifying anti-inflammatory agents, and novel biological chemotherapies. By consensus, methotrexate (orally or injected) is the first line systemic therapy for children with uveitis who have failed to achieve disease control with topical corticosteroid. There is however a dearth of research evidence to inform clinical practice. The majority of children have idiopathic disease, with uncertainties around disease pathogenesis and possible future therapeutic targets ('why does uveitis develop?'). We lack an understanding of disease classification ('which children respond?') and quantification ('is it working?') which is sufficiently sensitive and robust to support precision medicine. We propose to develop a childhood ocular inflammation Biobank, with biological samples, clinical data, and imaging, to enable future investigation of disease biomarker and disease pathogenesis.

#### 3 OBJECTIVES

## 3.1 Primary Objective

 The key aim of this Biobank is to collect and store biological tissue samples linked to clinical longitudinal data for research purposes in order to improve our understanding of childhood onset ocular inflammatory disease and to help develop novel therapeutic strategies

Initial research objectives are the discovery of: predictive (for therapeutic response) and prognostic (for long term disease remission) biomarkers to allow better targeting and use of systemic therapy



## 3.2 Secondary Objectives

- 1. To provide academic and industrial users access to ocular sample collections.
- 2. To undertake pilot studies for academic groups to help leverage grant funding.
- 3. To develop an ongoing financially sustainable system to allow collection and supply of tissue on a long-term basis.

#### 4 PURPOSE OF TISSUE BANK

## 4.1 Summary of design

This project will collect and store blood, uveal tissue, tears, aqueous humour, and faeces and saliva samples from both adults and children diagnosed with childhood onset ocular inflammatory disease, for use by researchers throughout the UK. Samples will include those obtained from those considered excess from surgery. Patients will be recruited from hospitals in the UK including Great Ormond Street Children's hospital and Moorfields Eye Hospitals. We shall also collect samples from patients who have a disorder that is associated with an increased risk of developing uveitis (such as juvenile idiopathic arthritis), patients who have an unrelated eye disease, or people related to young people or children with inflammatory eye disease. All samples will be immediately couriered to UCL GOS Institute of Child Health (unless processed by a trained satellite laboratory), where they will be processed and stored, with data entered into a secure database. The samples collected will be linked to clinical phenotype (including clinical outcomes and imaging data) and will form a unique research resource for studies into the mechanisms responsible for ocular inflammatory disease and for the development of novel treatment strategies.

### 4.2 Description of materials in the CHOIR Biobank

# 4.2.1 The types of tissue collected will include:

Blood



- Tears obtained using filter paper strip (Schirmer strip) collection
- Tissues considered excess from surgery on the eye including uveal tissue (iris samples) and intraocular fluid (aqueous)
- Stool / faeces
- Saliva

#### 4.2.2 The data collected will include:

Basic information including patient's hospital and NHS number, age and sex, ethnic group, sample site and nature of the tissue obtained will be collected. Information regarding clinical diagnoses and, whenever possible, drug therapy and outcome related data will be recorded with the sample information from the patient's notes or from information obtained from the patient and family during consent e.g. patient reported outcome measures, dietary history. Patients will not be re-contacted but will have consented to having their medical notes being examined by the clinical and research staff associated with the CHOIR Biobank for information relevant to the project, both now and in the future. Clinical information will be extracted from health records, migrated from clinical records into REdCap and stored in the UCL data safe haven, an ISO 27001 accredited, secure and flexible environment for researchers working with sensitive data. Data will be stored under lock and key as paper records and/or, as an encrypted stand-alone database with access restricted to specific CHOIR Biobank personnel.

Personal identifiers (ie, confidential / sensitive data comprising name, sex, ethnicity, postcode, date of birth) will be collected and held to allow the Biobank investigators to

- provide to the managing clinician the information necessary for him/her to be able to identify their patient's records for collection of follow-up data
- address important questions about variations in disease by socio-demographic factors (sex, ethnicity and socio-economic status as measured by deprivation index from post-code)
- re-approach families for consent for further research activities

The project will use the minimum necessary person-identifiable information, and, outside of the managing clinical team, this information will be available to only the Biobank governance group. All study data will be pseudoanonymised after collection by assigning to each study



participant a unique alphanumeric identification code for all study documents and for the study database, and for linkage to biological data – in order to prevent the potential for disclosure through linking of identifiers (eg name and address) with research data. All data files (electronic and paper) will be held in secure conditions only accessible to the Biobank team.

#### 4.3 Inclusion Criteria

Potential donors will be:

Male or Female, aged from birth to old age

Competent to give informed consent (i.e. can understand the nature and purpose of the proposed procedure, can understand and retain information relevant to the decision, and can weigh the necessary information to arrive at a choice) or whose parents are competent to give informed consent. Children will also be asked for their assent if considered capable of giving this.

#### And

- Diagnosed with a childhood onset ocular inflammatory disease such as Uveitis, Scleritis, Episcleritis or orbital inflammatory disease.

or

 Siblings of affected children, or those children visiting collaborating hospitals for other eye conditions or other conditions which are associated with an increased risk of developing eye inflammatory disease.

#### 4.3 Exclusion Criteria

#### The samples may not be collected if ANY of the following apply:

- If it is perceived that the parent / guardian (or the patient where developmental state permits) have not completely understood the information relating to the project or the verbal explanation (e.g. language barrier).
- Other factors that in the opinion of the responsible clinician might jeopardise the safe and ethical conduct of patient care, Research Tissue Bank operations or dependent research projects.
- Patients who wish to stipulate specific restrictions for use of their tissue for research.





#### 5 PROCEDURES

### 5.1 Donor identification

Potential donors will be identified initially by clinicians/nurses caring for the patient or by trained health care professionals in pediatric or adult ophthalmology and rheumatology clinics.

#### 5.2 Informed Consent

### 5.2.1. From young people / adults

Informed consent will be collected according to the HTAs Code of Practice on consent. The patient or healthy volunteer will be approached for consent by a research nurse, doctor or trained assistant as appropriate. Consent forms can be found in the **Appendix**.

The consent discussion will be noted in the medical record along with the signed consent form. When a patient gives consent for donation, the CHOIR Biobank will be informed by direct contact between the clinical teams and Biobank members. A copy of the consent form will be retained in the CHOIR Biobank records in support of sample and data collection.

### 5.2.2. From parents/guardians

The parents of children up to 16 years of age will be approached by their consultant, a member of their clinical team or a member of the research team, to ask if they are happy to be involved in the study and to donate samples. Parents and children will be given information sheets to read and time to ask questions of the person taking consent. In practice this will be medical doctors and research nurses or lead scientists with an honorary clinical contract from the attending hospital.

It will be explained that we are seeking their help to conduct vital research into understanding why disease develops. We will explain to parents and children that consent covers storage and use of samples for research. We will explain how the samples will be taken. Following an explanation parents and the child (as appropriate) will be given sufficient time to read information sheets and consider our request. Any questions can be addressed and if



appropriate written consent obtained. Parents and children will be aware that any decision they make will not impact on their treatment in any way and that they are free to withdraw consent at any time.

Young people whose parents / carers have consented to their participation in the study will be reapproached for consent ('re-consented') when they reach age 16 years.

#### 6 MANAGEMENT OF THE CHOIR BIOBANK

Day to day activities will be overseen by the CHOIR Biobank manager or deputy manager who will act under the guidance of ICH R&D Governance and the HTA representative. Operational matters such as equipment maintenance and tracking of samples will be the responsibility of both CHOIR and UCL. Governance and policy matters for the Biobank will be the responsibility of ICH R&D Governance. We will comply with the following HTA requirements:

- The CHOIR Biobank manager and PIs will attend the HTA training at ICH and will read online material (go to https://www.hta.gov.uk/hta-codes-practice-and-standards-0)
- CHOIR Biobank freezers will be on alarm system, labelled with HTA stickers with contact name and number, and stored in rooms with coded access doors.

The CHOIR Biobank manager will manage the use of the system/database that allows all samples to be traced.

#### **6.1** Tissue Procurement

#### 6.1.1 Tissue collection centres

The CHOIR Biobank will collect and store samples collected from:

- Great Ormond Street Hospital
- Moorfields Eye Hospital

Other centres will be added following the necessary approvals



#### 6.1.2 Collection numbers

Initially we aim to accrue samples from no more than 50 individuals annually.

If the CHOIR Biobank were to acquire financial support we would aim to collect and store samples from approximately 250 individuals/annum. We shall seek donors from centres known to manage children with ocular inflammation, including:

- Manchester Royal Eye Hospital
- Evalina Hospital
- Sheffield Children's Hospital
- Edinburgh Children's Hospital
- Alder Hey Hospital

#### 6.2 Clinical Procedures

The procedures described below will not interfere with clinical care. Procedures will:

- Blood will be collected at a time when venesection is necessary for clinical investigation.
   We will request consent to collect some additional sample that is not required for diagnostic purposes. Venesection would not be performed solely for the purpose of sample collection for this study. Blood samples will also be sought from control groups, but only if the child is already undergoing venesection for clinical investigation.
- Tears will be collected from patients on attendance to using Schirmer strips (similar to 'blotting paper') which are routinely used clinically for dry eye assessment. Strips will be placed just inside the lower lid. This procedure will take 3-5minutes. A topical local anaesthetic drop will be used. This drop is used in clinical practice to allow children to tolerate uncomfortable dilation drops (which are used to enable clinical examination). Tear samples will also be sought from 'control' groups who are patients of the relevant recruiting clinical centre ie those individuals who already routinely attend eye clinic for their unrelated eye disorder or for eye surveillance examinations necessitated by their inflammatory disorder.
- Patients undergoing intraocular surgery as part of their clinical care will be asked to allow a collection of aqueous humour at the start of their eye surgery. The patient will either



have had a general (paediatric patients) or local anaesthetic as part of their procedure. This procedure will take less than five minutes. Intraocular samples will also be sought from the control group (children undergoing eye surgery for reasons other than ocular inflammatory disease).

- Patients will be asked to provide a small sample of their stools and return it to the CHOIR team via postage paid return envelope, alongside an early-life questionnaire and an 5 day Food Diary. The patient will also be asked if they are willing to fill in an in-depth food frequency questionnaire. If at any time the patient feels that these questionnaires are too burdensome (approximately 20 mins to complete) and wish to decline, they will not be asked for a stool sample. Stool samples and the stool related patient reported measures will also be sought from tcontrol groups.
- Patients may also be for a saliva sample using either a passive drool method or an oral swab. Saliva samples may also be sought from control groups.

## 6.3 Sample Processing

Samples will be immediately couriered, according to local infection control procedures for packaging and transport, to the UCL GOS Institute of Child Health, processed and stored with data entered into a database. The only exception would be if the samples are processed by a trained satellite laboratory. The samples will be identified by a Sample Reference number and a unique identifier (that links all samples from the same donor individual). Immune cells or genetic material may be isolated from tissue samples, whole blood and either stored or used immediately in experiments. The remaining samples will be frozen and stored at the ICH facility.

### 6.3.1 Quality Control

Further tests to establish the presence of factors involved in inflammatory disease aetiology, development, progression, behaviour and response to treatment or infection may also be completed depending on research projects.



## 6.4 Sample Access

The CHOIR Biobank will facilitate human ocular inflammatory disease research aimed at studying disease mechanisms. The range of samples ensures that research in biomedical fields such as molecular biology, cell biology, genetics, gene therapy, bioinformatics, immunology, regenerative medicine, and pathology, to name a few, will benefit. Research projects that require additional data necessitating access to patient records by the researcher will be invited to seek separate ethics approval.

The CHOIR Biobank access policy applies to academic, private or public sector researchers whether they work in, or with, a profit or not for profit organization. Researchers requesting samples from the CHOIR Biobank will be classified in one of four groups as follow:

- 1. UCL and external members contributing samples
- 2. UCL and external members not contributing samples
- 3. External academic, non-commercial
- 4. Commercial e.g. pharmaceutical industry

Contributing members are defined as active suppliers to the CHOIR Biobank and clinicians who have actively assisted with implementation of sample collection. Samples will be available in a variety of formats and will incur a cost-recovery fee to support the collection, storage and processing of samples (including clinical information and phenotyping). Charges will be calculated on a case by case basis. The CHOIR Biobank will also have the ability of targeting collection of tissue and samples for ethically approved projects.

Appropriate utilisation of samples will be ensured through review of the applications process and will be monitored through annual audits of the studies that have obtained samples from the CHOIR Biobank. Duplication of research work on precious/rare samples will be avoided. All researchers granted access to sample collections will be informed of any known publication arising from work undertaken on the samples and they will be requested to notify the CHOIR Biobank of any publication arising from their work. They will be asked to supply raw data that can be linked to individual samples.



All user access applications will be received by the CHOIR Biobank manager and will be checked to ensure that the type and quantity of samples requested are available for issue. If the required samples are available in the Biobank, the researchers will be requested to submit a written application that includes the Principal Investigator's contact details, details of where the proposed project will be carried out, and an outline of the project to confirm that the research complies with the conditions of our generic ethical approval.

The CHOIR Biobank manager will screen applications against a set of qualifying criteria (under development but will include compliance with the ethical and legal requirement and availability of funding for the proposed project) and, where applicable, will invite full proposals to be submitted. Full applications will be sent to an Access Committee who will assess applications based on scientific merit and adequacy of resources and funding. To expedite this process the Access Committee will be made up of more members than we require for approval (see section 8.3.2). We will send the applications out to all members using MS Teams and Google Forms (see below) and the first five responses received (including the chair) will form the basis of the outcome. This means that projects will be approved much faster than they are currently without being constrained by member availability.

The outcome will be either approval, approval with changes required, reject with opportunity of resubmission or final rejection. Audit type projects or research projects that do not require processing of stored tissues (such as those using data or stored images) can be authorised by the CHOIR Biobank manager under guidance from the CHOIR Biobank Access Committee without undergoing a formal review process.

### 6.5 Sample Release

When specimens are released to researchers outside of UCL they will be subject to a Material Transfer Agreement and DTA that stipulates that following completion of their project any material that has not been used should be returned to CHOIR Biobank for future use. Researchers will also be requested to feedback raw data from research, following



publication or exploitation of intellectual property to be linked with the stored samples to increase their scientific value and minimise duplication of investigational studies.

Whenever possible, researchers will be provided with the amount of tissue, sample, biological material (i.e. DNA, RNA or protein) or data they require. Samples will be distributed by courier on dry ice (for frozen samples) or at room temperature (for living samples).



#### 6.5.1 International users

Although the majority of the Biobank clients are expected to be in the UK, some research may involve sending CHOIR Biobank samples overseas. In such cases, the appropriate Material Transfer Agreements (MTA)/DTA will be completed and measures will be taken by the CHOIR Biobank MG to ensure the integrity of the chains of custodianship, trust and benefit and that they are best served. MTAs will be monitored and managed by UCL Business PLC.

### 6.6 Auditing

CHOIR Biobank has developed Standard Operating Procedures and performs a quarterly audit to record and report on all donor recruitment. To do this we complete a table with the recruitment total of any volunteers for the studies within each financial quarter. This anonymised data (counts of each donor from each site only) is shared with the GOSH Biomedical research centre (BRC) who keeps a record of all recruitment in GOSH and the Institute of Child Health. In 2017 GOSH and ICH received £37 million from the National Institute for Health Research (NIHR) to fund the GOSH Biomedical Research Centre for five years. This funding provides vital support for infrastructure across ICH and GOSH which contributes to all research that goes on at ICH and GOSH, including the CHOIR Biobank

## 6.7 Patient and Public Involvement (PPI)

Patients and service users / carers have been and will be involved in the conceptualisation of the CHOIR Biobank, the choice of research topics, and the design, planning, conduct and dissemination of research. This Biobank proposal is driven by the priorities identified by stakeholders (patients and professional groups) who participated in the 2013 James Lind Alliance Priority Setting Partnership (JLA PSP). Amongst the top research topic priorities for those affected with inflammatory eye disease were the effectiveness of treatments, the ability to predict disease severity, the development of early detection methods, and the safety of current monitoring for ongoing chronic uveitis. This Biobank will enable researchers to answer these questions.

Specific ongoing PPI work for this study comprises:



- 1. The Childhood Uveitis Studies Steering group, which was formed in April 2019 by the CHOIR CI (ALS). The group comprises three young people directly affected by childhood uveitis, and four parents of other affected children. This group have been supported and trained in research methods through written materials / presentations. The group holds two –three meetings each year. There is monetary recognition of time spent, travel reimbursement and subsistence payments. This group have co-developed Biobank methodology including study participant literature.
- 2. We have also been in regular communication with UK based patient led support groups for childhood uveitis ('Olivia's Vision') and childhood arthritis ('JIA matters/CCAA/Versus Arthritis'), to inform members on the Biobank proposal and enable input. Similar approaches will be made to other international patient groups during the study.

We aim to recruit patients through the participating hospitals by employing highly motivated appropriately trained individuals to obtain consent. Subjects donating their tissue will not be consulted for the choice of research project they are used for.

We aim to advertise and distribute leaflets to healthcare professionals to make them aware of the CHOIR Biobank. We also aim to have a website to allow the public to obtain information about the CHOIR Biobank, CHOIR Biobank policy and application process, and to follow our progress. This will be generally available for patients, tissue donors, healthcare professionals and the research community.

A CHOIR Biobank Access committee will be formed and will include a lay representative to work alongside other members and will be consulted in the different matters related to the construction and running of the Biobank.

## 7 ETHICS

## 7.1 Participant Confidentiality

The CHOIR Biobank staff ensures that the participants'/donors' anonymity is maintained. The donor is identified to Biobank staff by serial number on the electronic database. The clinical information that accompanies the sample is labelled with this serial number and



access to patient identifier will be linked by a hospital number that can only be accessed from the NHS Trust database that supplied the material. All documents will be stored securely and only accessible by CHOIR Biobank staff and authorised personnel. The study will comply with the Data Protection Act that requires data to be anonymised as soon as it is practical to do so.

The patient information sheets reflect the guidance produced for researchers and study coordinators on the implications of the GDPR for the delivery of research in the UK. (https://www.hra.nhs.uk/hra-guidance-general-data-protection-regulation/)

## 7.2 Donors with language difficulties

Potential donors with special communication needs will be approached by the healthcare team responsible for the patient with the help of translators provided by the relevant NHS Trust. Every effort will be made to provide potential donors with an information leaflets written in their native language. Consent will only then be obtained with the help of translators provided by the Trust. If there are any concerns that the donor does not fully understand samples will not be taken.

### 7.3 Informing participants of clinically relevant research

Results for individual patients from initial research studies will not be relayed back to the patient their hospital doctor or their GP. The CHOIR Biobank is a research facility and does not conduct diagnostic tests. It is explicitly clarified in the consent form that the donors will not be notified of results of research carried out on their specific samples.

#### 7.4 Withdrawal of consent

Each sample is allocated a unique identifier and is linked to clinical details by means of a stand-alone computer database and paper records. Any sample which is released by the CHOIR Biobank will have details recorded including date of release, PI of the project, title of the project, type of tests to be performed and whenever applicable date of return, and in case of destruction, reason for destruction, date of destruction and by whom. If donors withdraw



consent, the samples will be identified by their unique identifier and the PI will be asked to return the sample and any derivatives to the Biobank. The CHOIR Biobank will be responsible for destruction of the tissue. Biological samples will be incinerated, hard data will be shredded and electronic data deleted.



#### 8 DATA HANDLING AND RECORD KEEPING

### 8.1 Data entry/management

#### 8.1.1 Samples

All sample data will be entered onto a secure database (see below), with samples identified by a Sample Reference number which is linked to the original donor identifiers by RedCap ID.

#### 8.1.2 Clinical information

Clinical information relating to the donor of will be entered on a secure online REDCap (<a href="https://redcap.slms.ucl.ac.uk/">https://redcap.slms.ucl.ac.uk/</a>) database located within the UCL Identifiable Data Safe Haven. REDCap is a mature, secure web application for building and managing databases. The samples will be identified by a Sample Reference number (that links all samples from the same donor individual). The donor name and any other identifying detail will NOT be included in any study data electronic file.

#### 8.1.3 Access Records

Records of access procedures and correspondence between the CHOIR Biobank manager and potential users including providing initial costings for applicants will be stored as electronic records on a secure PC and backed up through a cloud-based file hosting service. General administrative records including details of CHOIR Biobank access committee meetings and correspondence will be kept as hard copies at ICH for a period of 5 years and then destroyed. This is for auditing purposes.

### 8.1.4 Material Transfer Agreements

### (MTAs) and DTA s

MTAs will be completed, monitored and managed by UCL Research Innovation Services (RIS). Backup of each MTA will also be stored by the CHOIR Biobank manager at ICH for a period of 3 years and then destroyed. This is for auditing purposes (see below).



#### **8.1.5** Audits

Records including annual audits of sample numbers, access committee decisions and MTAs will be stored electronically with the CHOIR Biobank manager. These will be stored on a secure PC and backed up through a cloud-based file hosting service.

## 8.2 Data preservation

Records in all formats containing personal data will be created, stored and disposed of in accordance with UCL's Records Management Policy and associated procedures and codes of practice. All primary data will be retained for no longer than the periods permitted in UCL's retention schedule.

## 8.3 Data security

#### 8.3.1 Data security standards

Data subjects have a right of access to their personal data, including some unstructured manual personal data. Subject access requests must be made in writing (<a href="https://www.ucl.ac.uk/informationsecurity/policy">https://www.ucl.ac.uk/informationsecurity/policy</a> ) or otherwise and sent to the Data Protection Officer. Data subjects must prove their identity.

Details of UCL's Data Security Policy can be found at:

https://www.ucl.ac.uk/informationsecurity/policy/public-policy/DataProtectionPolicy0417a.pdf

#### 8.3.2 Governance of access

The PI will be responsible for deciding who has access to the research data (via shared drive or MS Teams) and the timing of data submission to publicly available databases. Data subjects will surrender their right to access data generated from their tissue as part of the consent form.

#### 8.3.3 Membership of Access

### Committee

The committee members will consist of:

• The Independent Chair - Uveitis specialist



- The PIs of the CHOIR Biobank
- At least one patient or family representative
- The CHOIR Biobank Manager
- ICH R&D members of Research Governance Committee
- up to 5 Ophthalmic clinicians (of whom the majority will be paediatric ophthalmologists)
- up to 3 Non-clinical scientists

## 8.4 Responsibilities

The PI, clinicians, CHOIR Biobank manager, staff and students will all collect data during this project and will share responsibility for the security and integrity of data. Each team member is responsible for ensuring that the electronic data they generate are filed correctly and linked to samples and appropriate experimental SOPs.



#### 9 FINANCE

### 9.1 Funding strategy

The CHOIR Biobank will operate overall on a not-for-profit basis. Tissue to local researchers will be at subsidised rates of 'direct cost plus overheads' which reflects the rates achievable from funding grants, and an element will be issued 'free of charge' for pilot studies. These rates will be subsidised from tissue distributed to external research groups at commercial rates (see section 9.3). In addition, infrastructure grants will be sought from funding bodies including charities.

## 9.2 Initial funding

The CHOIR Biobank will be funded by the research projects that utilise the resource. New grants applications include a cost-recovery element to support the Biobank running expenses (consumables) and maintenance. These grant applications may be submitted to government, charitable and commercial organizations. In addition, the cost recovery fees charged to new researchers and commercial parties will be used to support the running of the Biobank.

## 9.3 Business plan for long-term sustainability

Our not-for-profit cost recovery business plan aims to provide major savings for academics (>50 to 75%) as data and tissue stored in the Biobank will be provided to academics at only the cost of retrieval, processing and shipping. A charge levied will be for data generated by the Biobank and the provision of cultured basal and ciliated cells. A major strength is the ability to collect a range of samples from a wide spectrum of patients with different ocular inflammatory diseases and to provide clinical details and detailed phenotyping of samples collected. We shall approach industry to gauge the demand for particular samples, in order to understand whether pharma income could be used to subsidise cost of samples to academic groups.

#### 9.3.1 Professional fees

The user may request that UCL perform the experimental work or UCL researchers will work with researchers to advise and support their experimental work. The staff time required for



these collaborations will be charged for. This additional income will help underwrite some of the long term salary costs.



#### 10 REFERENCES

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## 11 APPENDIX

## 11.1 List of other appropriate documents

PATIENT INFORMATION SHEET (PARENT)  PATIENT INFORMATION SHEET (PATIENT 16 PLUS)	V4 15092022 V4 15092022
PATIENT INFORMATION SHEET (PATIENT 16 PLUS)	V4 15092022
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PATIENT INFORMATION SHEET (CHILD 13+)	V4 15092022
PATIENT INFORMATION SHEET (CHILD 9-12)	V4 15092022
PATIENT INFORMATION SHEET (CHILD 8 AND UNDER)	V4 15092022
PATIENT INFORMATION SHEET (CONTROL PARENT)	V1 15092022
PATIENT INFORMATION SHEET (CONTROL PATIENT 16 PLUS)	V1 15092022
PATIENT INFORMATION SHEET (CONTROL PATIENT 13+)	V2 27102022
PATIENT INFORMATION SHEET (CONTROL PATIENT 9-12)	V1 15092022
PATIENT INFORMATION SHEET (CONTROL CHILD 8 AND	V1 15092022
UNDER)	
PATIENT INFORMATION SHEET (CONTROL SIBLING PARENT)	V1 15092022
PATIENT INFORMATION SHEET (CONTROL SIBLING 16 PLUS)	V1 15092022
PATIENT INFORMATION SHEET (CONTROL SIBLING 13+)	V2 27102022
PATIENT INFORMATION SHEET (CONTROL SIBLING 9-12)	V1 15092022
PATIENT INFORMATION SHEET (CONTROL SIBLING 8 AND	V1 15092022
UNDER)	
CONSENT FORM (PARENT)	V5 15092022
CONSENT FORM (16+)	V5 15092022
ASSENT FORM	V5 15092022
CONSENT FORM (PARENT CONTROL SIBLING)	V1 15092022
CONSENT FORM (CONTROL SIBLING 16+)	V1 15092022



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