Biobanks

January 2020
Research Biobanks led from centres in Wales

AML Clinical Trials Tissue Bank

The samples will be available for use in research pertaining to the causes, characterisation and treatment of acute myeloid leukaemia (AML).

Archie Cochrane Biobank.

The Archie Cochrane Biobank will ensure that valuable human tissue samples e.g. urine, serum & stool etc., and organisms collected during the course of high quality infections and related research studies / trials for further research. Clinicians and researchers studying the diagnosis, causes and treatment of infections and related conditions may apply to use samples held within the Archie Cochrane Biobank.

Cardiff Fetal Tissue Bank

Cardiff Fetal Tissue Bank (CFTB) is based within the Brain Repair Group, School of Biosciences. The main aim of the CFTB is to collect and prepare human fetal tissue for clinical use in human research programmes.

Cardiff Neurological Disease Biobank & Neurogenetics Research (CANDAS)

The establishment of this DNA and cell bank follows on from the work that we have undertaken in Cardiff in Neurogenetic diseases, including the identification of gene mutations in dementia and Parkinson's disease and the follow up of families harboring, as yet, unidentified gene mutations.

Cardiff School of Dentistry Tooth Bank

The overall aim of the “Tooth Bank” is to provide researchers within the School of Dentistry with tissue samples which will be utilised in translational research, through providing better understanding of disease mechanisms, promoting mineralised tissue repair,
improving the efficacy of therapeutic and clinical developments, and thus facilitating better chairside care.

The Cardiff University Biobank (CUB) is a generic biobank that collects samples from a broad range of disease areas and from healthy volunteers.

**Cardiff University Biobank**

Swansea University CONTINUUM Biobank samples will be used in research projects focused on the elucidating the biological mechanism(s) underlying the ability of unique individuals to survive cancer through the application of advanced molecular and cellular characterisation of anonymised whole blood samples.

**CONTINUUM Biobank**

The material will be used to understand the genetic and lifestyle factors that cause disease, allowing new therapies to treat these diseases to be developed and to understand the conditions that contribute to disease processes.

**Hywel Dda Biobank**

The National Anaplastic Thyroid Cancer Tissue Bank (NATT) collection will be hosted within the Wales Cancer Bank and will try and address the current lack of understanding about the aetiology and progression of this disease and ultimately to develop new therapeutic interventions that may slow the rate of disease progression, improve quality of life and prolong what is currently a very short survival for the majority of patients.

**National Anaplastic Thyroid Cancer Tissue Bank (NATT)**

PsyCymru was established to investigate the feasibility of linking a prospectively ascertained, well characterised (linked clinical cohort) of people with psychosis in Wales, UK with large amounts of anonymised routinely collected health record data. We are now additionally linking genetic data.

**PsyCymru-wales psychosis cohort**
South Wales Initiative for Fetal Tissue (SWIFT) Research Tissue Bank

Our main principal, and the overarching theme of the biobank, is to provide a DNA and cell repository for research into epilepsy and associated disorders, ranging from basic science to drug development.

The bank collects tissue, blood and bodily fluid samples from cancer patients, or those with suspected cancer, in Wales. Researchers involved in cancer research can apply to the bank to access samples or data. All samples and data are issued anonymously to researchers, so no patients can be individually identified.

The samples will be available for use in research studying the causes, identification and treatment of kidney disease. The main aim of this tissue bank is to facilitate translation of relevant in vitro findings "from bench to bedside" by enabling study of expression of novel biomarkers of renal disease, and confirmation of in vitro findings pertaining to mechanisms of disease.

The Welsh Neuroscience Research Tissue Bank supports research pertaining to the causes, diagnosis, prognosis or treatment of neurological disease. Research into neuroinflammation, neurodegeneration and neurotherapeutics will be supported.

UK Biobanks centres in Wales are contributing to

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100,000 Genomes Project

The project was established to sequence 100,000 genomes from around 85,000 NHS patients affected by a rare disease, or cancer.

A Sheffield Ophthalmology Research Tissue Bank

Investigations into the genetic and biological behaviour of eye tumours, and how they can be more effectively treated.

Abcellute Tissue Bank

Airwave Health Monitoring Study Tissue Bank

Antitope Research Healthy Donor PBMC Bank

Arden Tissue Bank

Arden Tissue Bank (ATB) aims to provide researches with access to a wide range of high quality human tissue, whilst following national legislation. ATB store surgical tissues that have been taken for diagnosis as part of the patient’s normal clinical routine. Once the diagnosis has been established, the tissue is normally destroyed. However, ATB stores these tissues and makes them available for ethically approved projects. ATB also works with NHS National Blood and Transplant, and offers a practical laboratory, advice and support to a number of research teams within the Trust as well as local Universities and has facilities to provide a range of routine histology services.

AstraZeneca Alderley Park Biobank

Human biological samples play a vital role in AstraZeneca Research and Development, helping to build a deeper understanding of human disease processes and their underlying mechanisms, and in developing new medicines by enabling earlier and better predictions about their effectiveness and safety.

Biological Studies of Disease in Childhood

The purpose of the bank is to store material for use in research into the causes and potential treatment of disease in childhood. The aim is to make the material available to the broadest range of researchers, in Newcastle and worldwide, to discover new information that will help future children.

Biomedical Research Unit (BRU) Respiratory Biobank

The BRU Respiratory Biobank will provide samples and data to translational medical research projects in lung disease. The BRU Respiratory Biobank's main objective is to increase the rate at which clinically beneficial treatments are developed for patients with lung diseases.

Blood BioBank of the Brains for Dementia Research cohort
**Bloodwise Childhood Leukaemia Cellbank ethics renewal**

Research into childhood and young adult blood cancers, in particular leukaemias. These are rare disorders and these samples are invaluable to making progress in these disorders.

The Manchester Brain Bank is an open access tissue bank supplying tissue for projects into the functioning of the brain and nervous system. Potential donors with brain disorders and normal controls are recruited mainly through clinical research programmes. Samples are supplied for work including molecular and biochemical studies and genetics. Diseases studied will include dementias, cerebrovascular disease, neurodegenerative diseases, some psychiatric disorders, stroke, epilepsy, traumatic brain injury and some brain tumours. Samples are provided to any applicants who can demonstrate that their project is scientifically and ethically valid.

**Brain Tissue Donation for Research**

BRAIN UK is a virtual brain bank, cataloguing stored tissue and other biological samples from 26 Participating Centres to facilitate access for research. All Participating Centres are NHS Neuropathology Departments/Services and consequently, BRAIN UK includes all tissues/materials which are mainly from the brain and structures relating to the nervous system from both living and post mortem participants.

**BRAIN UK**

The BDR Blood Biobank is in addition to the established BDR project which aims to relate standardised clinical assessment during life with data obtained at post-mortem brain donation.

**Brains for Dementia Research**

The aim of our primary research programme for this cohort is to address the hypothesis that epigenetic alterations resulting from exposure to cancer risk factors over a lifetime must be detected in normal breast epithelial cells if they contribute to breast carcinogenesis.

**Breastmilk Epigenetics Cohort Study (BECS)**

Our research is directed towards understanding the processes that lead to neurological diseases such as Parkinson’s disease, Alzheimer’s disease and Motor Neuron Disease. These are progressive neurological diseases which result from “wearing down” and loss of nerve cells. Although we have some treatments for these conditions we do not have disease modifying therapies that can stop these conditions in their tracks. Although these conditions are not usually inherited, in some cases we can study families where many people have been affected by the disease. Other individuals have genetic factors which slightly increase the risk of developing the disease. We hope that understanding these
processes, through genetic studies, will lead to new diagnostic tests and to new treatments in the future.

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Despite improvements in the survival of children, teenagers and young adults with cancer in recent years much remains to be done to help those with difficult to treat tumours and to help reduce the short and long term side effects of treatment. By working to understand how childhood cancers develop and what makes them grow, doctors and scientists aim to improve the prevention, detection and treatment of these conditions. The national CCLG Tissue Bank was set up to support these important studies by providing a Bank of patient samples voluntarily donated for use in research.

The aim of the Biobank is to create a valuable resource from tissue removed from patients that would normally be discarded. This tissue would be made available to both internal and external researchers, commercial and non-commercial organisations for the benefit of patients and healthcare in general.

The bank supports a range of work within the communicable disease group at St Mary’s Campus, Imperial College Healthcare NHS Trust. This includes projects studying HIV, HTLV, syphilis, TB and viral hepatitis.
University, small commercial and large commercial organisations on a global scale will be allowed to apply for the donated samples. Research will be limited to that approved by the REC but will include Cell Culture, Genetic studies, Drug discovery including metabolism, toxicity, transport etc, Drug Efficacy testing, Drug Safety Testing, Formulation of diagnostic samples and/or kits as well as Protein quantification/analysis.

The collection holds samples taken with consent for use in any project related to pancreatic disease. Applications are welcome for studies in all areas but, where samples are limited, priority will be given to research directly related to identifying markers in the primary tumour which predict improved probability of survival after adjuvant therapy following resection for pancreatic ductal adenocarcinoma and ampullary tumours.

Researchers requiring tissue for a research project contact the bank to see if the tissue is currently available or if it can be obtained. An application form has to be completed which is reviewed by a panel of senior scientists and clinicians (ISAC's). Staff at Ethical Tissue do not make the decision as to whether a researcher gets the tissue they want. Ethical Tissue has about 40 studies in academic institutions, pharmaceutical and biotechnology companies. This is not a resource that is just for the University of Bradford researchers. All have had to be assessed as being suitable to receive the donation of human tissue for their research. Having a tissue bank allows us to optimise every donation. Large samples can be divided between more than one study looking at different aspects of a disease; smaller samples can be processed in such a way that several researchers can receive thin sections of tissue on a microscope slide for their further processing. Nothing is wasted, cells can be cultured, proteins extracted, subcellular fractions supplied. These are valuable tools in helping the researcher understand human disease using human tissue. For further information contact Ethical Tissue at enquiries@ethicaltissue.org or go to www.ethicaltissue.org
GDSC Research Tissue Bank

The research will be in the area of DNA repair and genome stability. A substantial number of rare diseases are associated with genome instability, and many of these show increased susceptibility to cancer, neurodegeneration or immunodeficiency.

Genetic Beta Cell Research Bank

The aims of the study is firstly, to offer a genetic testing referral service for patients with PIGFD. We will screen for mutations in the genes known to cause GHI. This is important to make a definitive diagnosis, for genetic counselling and for consideration of the therapeutic options for the patient with PIGFD.

Genetics of Primary IGF-1 deficiency (PIGFD)

The aims of the study is firstly, to offer a genetic testing referral service for patients with PIGFD. We will screen for mutations in the genes known to cause GHI. This is important to make a definitive diagnosis, for genetic counselling and for consideration of the therapeutic options for the patient with PIGFD.

Glasgow Diabetes Biobank

The proposed resource is intended to address the pressing need for suitable human tissue to support national and international research studies directed towards understanding the neuropathological consequences of survival from traumatic brain injury (TBI).

Glasgow Traumatic Brain Injury Archive

The proposed resource is intended to address the pressing need for suitable human tissue to support national and international research studies directed towards understanding the neuropathological consequences of survival from traumatic brain injury (TBI).

Great North Biobank

The Babies biobank is intended to support work in Newcastle including analysing gut bacteria, function, metabolism and how this affects gut and general health, how the immune system responds, and what gut tissue is like in health and disease.

Great North Neonatal Biobank

The Babies biobank is intended to support work in Newcastle including analysing gut bacteria, function, metabolism and how this affects gut and general health, how the immune system responds, and what gut tissue is like in health and disease.

GSK Research Tissue Bank (UK)

The bank intends to support a wide variety of research programs within GSK and in collaboration with external researchers. Therapeutic areas being addressed include but are not limited to respiratory, inflammatory and neurological diseases, and biopharmaceutical studies involving a broader range of therapeutic areas.

Guy’s & St Thomas’ Breast Tissue & Data Bank

HaemBio Biobank Version 1.0

HaemBio Biobank supports research programmes into blood cancers. This research should be aimed to develop a better understanding of the disease pathogenesis, to develop new tests with which to diagnose and monitor diseases, and develop new ways to prevent, treat and cure diseases.

HCV Research UK Tissue Biobank

The Tissue Bank is a key component of the collaborative project, HCV Research UK, which provides key reagents, infrastructure and material to resolve crucial questions relating to the natural history and management of chronic HCV infection in the UK.
The KCL Haemato-Oncology Tissue Bank supports research into the causes, diagnosis and treatment of diseases within the field of haematopoietic and oncology through collaboration with academic researchers in the UK and abroad.

The Leeds NIHR Biomarker research tissue bank (RTB) principal focus is on renal (kidney) cancer and kidney transplantation. Liver disease is also covered under a separate ethical approval involving a clinical trial of new biomarkers.

The Brain Bank acts as a resource for the Neuroscience and Neurodegeneration research community. Tissue is used for a variety of types of research including basic Neuroscience, Neuropathology, Neurodegeneration, Molecular Biology, Neuobiology and gene expression studies.

The bank would be used for research into myositis. This condition is rare and there is a genuine need for collaborative and multi-centre research to generate sufficient sample sizes for research into the pathogenesis and underlying disease process of this condition.

The aim of this BioResource is to facilitate research into the underlying physiological and pathological mechanisms that underpin CJD and other prion diseases plus related neurodegenerative disorders, studies of infectivity and transmissibility of disease by biological samples and the identification of genetic risk factors that may influence disease course.

Samples stored in the GIST biobank can be obtained for research by teams based anywhere in the world. However, donors will be asked if they would want their samples to be retained in the UK. Research
projects include those aimed at increasing our understanding of the causes of gastrointestinal stromal tumours, improving the accuracy of diagnosis and improving the ways in which diseases can be treated.

The sample bank will be used for the development of tests for the non-invasive prenatal diagnosis of genetic or chromosomal abnormalities in the fetus, or for the detection of pregnancies at increased risk of obstetric complications which jeopardise fetal well-being.

New Methods of Detecting Problems in Pregnancy - Sample Bank - 2019

Newcastle bio bank for research of neuro muscular disorders

Newcastle Brain Tissue Resource

NBTR is an open access tissue bank supplying tissue for projects into the functioning of the brain and nervous system in particular in the field of brain ageing, age-related disease and neurodegenerative disease.

Newcastle Haematology Biobank

The main purpose of the tissue resource is to support the established and growing basic and translational research programme at the Institute of Infection, Immunity and Inflammation, an internationally recognised research organisation, whose specific interest is to better understand the immunological and pathogenetic pathways in a wide range of conditions organised under the umbrella of rheumatic and musculoskeletal disease (RMD), which includes over 200 conditions and includes a wide range of degenerative and inflammatory conditions, infection related arthritis, gout, tendon disease, and vasculitis.

NHS GG&C Additional Sample Tissue Resource to Support I3I Research-II

The NHSGGC Biorepository has a fair and open access policy. Research organisations that may request access to stored samples or request a new collection include Universities, Research Institutions and commercial organisations (e.g. Pharmaceutical and Biotech companies).

NHS GG&C Gastroenterology Researchers Tissue Bioresource

The NRS Bio-repository network will be a key component of the “Precision Medicine Ecosystem for Scotland “. A key priority of the Biorepository is therefore to ensure its activity is closely aligned to the research strategies set out by the CSO as well as those of the local and UK research community.

NHSBT Research BioResource

The research tissue bank is in supporting the National BioResource initiative of the NIHR in collaboration with local Biomedical Research Centres.

NIHR BRC BioResource for Mental and Neurological Health 2.0

Norwich Biorepository (formerly the Partners)
Pancreatic Cancer Research Fund Tissue Bank (PCRFTB) aims to collect samples of blood, urine, saliva from patients with suspected pancreatic problems. Furthermore, tumour and normal tissue, from those patients undergoing an operation to remove tissue from different types of pancreas diseases will be asked to donate tissue.

This initiative is coordinated by the Quality in Organ Donation (QUOD) Consortium. Led by Professor Rutger Ploeg from the University of Oxford, the QUOD Consortium includes Principal Investigators and Expert Advisers from academic institutions across the UK.

The QSBB and NeuroResource support in-house research and also research projects at at UCL Institute of Neurology, UCL and other UK and overseas centres. Over many years the QSBB and NeuroResource have facilitated research into neurodegenerative conditions by providing well characterised tissue samples to the scientific community.

The research aim is to use samples stored in the MedImmune Biobank to aid the discovery and development of new drugs to benefit patients across the entire MedImmune disease portfolio.

The diagnostic tissue bank will provide samples and data to translational medical research projects in both cardiac and respiratory disease.

Tissue donated to the South West Dementia Brain Bank (SWDBB) underpins research locally, nationally and internationally. The aim of the Bank is to support a wide range of studies on the causes, disease mechanisms, diagnosis and potential for treatment of dementia and other neurological conditions. In only a 6 year period (2011-2016), the Bank has provided Material that has contributed to over 100 research papers published in peer-reviewed journals, met 133 tissue request applications and amendments, accepted 207 donations and supplied over 35,000 samples to researchers. For this reason we feel justified in
calling the SWDBB an invaluable resource, which without the altruistic gift of our donors and their loved ones would simply not have been possible.

South West Newly Diagnosed Type 1 Diabetes Collection - 2

Spinal intervertebral disc tissue bank

Studies on Isolated Tissues to Investigate New Medicines

Tissue and data retained by the Bank is primarily from patients with a possible cancer diagnosis, with particular emphasis on breast, colorectal and skin cancers for which the University of Dundee has particular expertise and has an international reputation.

Tayside Biorepository

The Brain Bank

The Brain Bank acts as a resource for the Neuroscience, Neuropathology, Neurodegeneration, Neurooncology, Molecular Biology, Neurobiology, Neurodevelopment and gene expression studies.

The National Birdshot Biobank Project

The Newcastle Biomedicine Cancer Biobank

The Newcastle Mitochondrial Research Biobank

The Newcastle Mitochondrial Research Biobank is a collection of samples from patients with suspected or diagnosed mitochondrial disease, their family members (affected/unaffected) and controls. This collection aims to facilitate research into the pathological role of mitochondria in human disease.

The Research Tissue Bank, Envigo CRS (formerly Huntingdon Life Scien)

Envigo CRS (Huntingdon) is one of the worlds' leading Contract Research Organisation (CRO). To this end Envigo CRS needs to acquire ethically sourced human tissue samples to support a broad range of scientific research procedures throughout the company. The research community it supports is therefore world-wide.

The Research Tissue Bank, Huntingdon Life Sciences

Huntingdon Life Sciences (HLS) is one of the worlds' leading Contract Research Organisation (CRO). To this end HLS needs to acquire ethically sourced human tissue samples to support a broad range of scientific research procedures throughout the company. The research community that HLS supports is therefore world-wide.

The UK Multiple Sclerosis Tissue Bank
**TIN-TIN Biobank**

The TIN-TIN Biobank sits within the MRC centre for Transplantation, based at King’s College London. The MRC Centre aims to generate high quality biomarker data to enable disease prediction, risk stratification and personalised medicine.

As a teaching hospital and a University school we and our collaborators need human teeth for research projects and to train student dentists. Some projects are designed to understand the nature of teeth, their characteristics and changes that can occur in diseased states. The more we understand about healthy and diseased teeth, the better able we are to design treatment options/oral healthcare products. Other projects are designed to determine the relative abilities of agents to cause damage to teeth, so that the people can be educated about the potential harm certain drinks or foods may do to their dentition. Additionally this information can be used by the suppliers of these products so that they can make formulation changes to limit the damage caused by their products. Teeth are also used in experiments to study potential new ingredients for oral health care products or in trials to test how well new or existing oral hygiene products work, for example toothpastes designed to treat dental hypersensitivity, or to promote enamel remineralisation. A small number of teeth may be released to the Department of Archaeology and Anthropology at the University who compare these 'modern' teeth with archaeological teeth to learn about past habits and practices.

**Tooth Tissue Bank at Bristol Dental Hospital**

The tissue bank is a valuable resource for the investigation of biomarkers and will allow genetic analyses that may reveal differences in cancer cells that might impact on the response of a patient to treatment and on outcome.

**TransATAC tissue core and DNA research bank**

The UCL/UCLH Biobank for Studying Health and Disease supports research projects principally involved in the study of human disease and the normal functioning of the human body.

The researchers who use the samples range from internal academic researchers who use samples for research that has been funded by Charities, government funders and possibly industrial collaborators.

UK Biobank is a major national health resource, with the aim of improving the prevention, diagnosis and treatment of a wide range of serious and life-threatening illnesses – including cancer, heart diseases, stroke, diabetes, arthritis, osteoporosis, eye disorders, depression and forms of dementia. UK Biobank is open to bona fide researchers anywhere in the world, whether funded by academia or industry, for health-related research that is in the public good.
UK CLL Biobank

The UK CLL Biobank is of pivotal importance to the NCRI CLL trials portfolio as it allows the collection and storage of clinical samples to the highest standards across multiple trials. In doing so, the Biobank provides the UK with an unrivalled resource for high quality biomarker research which will ultimately lead to the application of stratified medicine to CLL therapy.

United Kingdom Human Tissue Bank

The UKPSSR supports a wide range of research projects in primary Sjogren’s syndrome (PSS) conducted by research organisations in the UK and abroad. The types of research projects include basic science and clinical research.

Vascular Disease Biorepository

The main aim is to provide the infrastructure to underpin and streamline the process of research tissue acquisition and availability for the research community (this includes researchers in academia, research charities and "commercial" biotech industry).

West of Scotland Neuroimmunology Biobank

The York Tissue Bank will serve all researchers in the University of York, York Teaching hospitals Trust and their collaborators who have a demand for human tissue and research goals aimed at improving and furthering understanding of healthcare.