

# **Accelerating Research & Biobanking Sciences**

# **Objectives**

To establish an independent national biobank on liver & other disease research, functioning testing of cryopreservation, analytical systems and implementation of quality assurance practices. Nationwide calibre building in liver & other disease research by sharing the services, informatics and strengthening competence and capabilities of stakeholders.

To commence Biobank based pilot projects and to expand the Biobank based need and science in India.





Storage (-80 & Liquid Nitrogen)

Clinical Data Patient Follow-up data

Contract Research

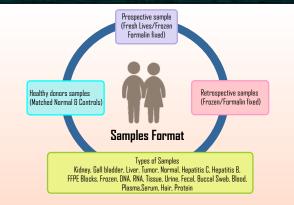
Patholog

Prospective sample collection based on projects

Biospecimen (Human, Animal & plants)
Analytical Services Clinical Trails
Pathological services

"National Liver Disease Biobank (NLDB)" is a DBT-ILBS initiative which facilitate clinical and basic research in the field of HCV, Liver disease, Gallbladder, Cancer and other diseases. It has a storage capacity of more than 5.4 million bio samples along with advanced analytical facility, including FACS, high resolution MS, NGS, and pathological analysis.

In order to deliver cutting edge services for collaborative liver and other disease research and academia-industry partnership in India, this facility will acquire a non-profitable business and financial model. It will help to seek answers regarding causes of diseases, treatment and genetic information.



## Biobanks are essential resources to foster biomedical research

The availability of well-preserved, annoted biospecimens allows researchers to discover genetic causes of complex diseases and development of new therapies, diagnostics and prevention strategies. We are focussed to facilitate researchers with high quality samples, storage and analytical services in order to move closer to achieving the goals of personalized medicine and patient care.





# **Biobank Services**

STORAGE

BIOSPECIMENS & CLINICAL
ANNOTATION

ANALYTICAL SERVICES

**SCOPE OF COLLABORATION** 









- · Contract Research
- · Collaborative Projects
- · Prospective Sample Collection
- · Clinical Trials

·Liquid nitrogen & -80°C freezer -

We provide storage facilities in nitrogen tanks and -80 C as per the project requirement along with specimen tracking through Lims Software

Tissue collection, blood, urine collection, Faecal Protocol-based tissue, Protocol-based blood, Live cryo-preservation tissue, Live cryopreservation blood, Clinical Annotation, followup data

Microscopy, next generation sequencing (NGS), Mass spectrometry, RNA/DNA extraction, Tissue homogenization and extraction of analytes, Targeted gene expression profiling, Pathology validation services, Construction of tissue microarrays Tissue embedding and processing, Fixed (FFPE) and frozen tissue sections, H & E slides, Special stains, Immunohistochemistry stains 1-5 antibodies, Immunofluorescent stains 1-6 antibodies, In-situ Hybridization

# Pathology Radiological Data Disease status Molecular Data Diagnostic Data Treatment Info Demographics Follow-up Data

# **Data Services**

- Level I data related to tissue collection, storage and distribution
- · Level II pathology report information
- · Level III clinical follow-up, disease progression
- · Level IV clinical follow-up, treatment data

# **NLDB**

**National Liver Disease Biobank** 

INSTITUTE OF LIVER & BILIARY SCIENCES; D-1, VASANT KUNJ, NEW DELHI-110070 (INDIA) Contact: +91-11-46300000, Extn.: 24813,24814; Email: nldb.ilbs@gmail.com; Website:www.nldb.in

Mobile: 9958368439

# Models of availing biobank services

#### 1. Rental for storage

you can store your samples at biobank in various storage system as per your requirement, the list of which is already mentioned.

## 2. Retrieval of biosamples

you can retrieve your samples stored at biobank facility with a nominal charge as storage, handling and maintenance.

This service is only offered to the Hospital/Institute/PI who donates duplicate samples (1. For NLDB 2. Stores duplicate sample at NLDB for self use).

## 3. Sample sharing

The number of samples you store at biobank will be divided equally under the following policy:

50%	50%
	Ownership of these samples remains with you for 3 years and we will store and maintain the quality of the samples provided by you without any charges.

## 4. Revenue sharing

Revenue generated by industry collaboration can be shared between NLDB and Hospital/PI/Institute for the stored samples by the provider.

# 5. Sample exchange

Samples owned by Hospital/PI and stored at NLDB can be exchanged with other samples from common pool (eg. Tissue with plasma, or vice versa).

# 6. Training facilities

Technical training on NGS, FACS, Mass Spectrometry etc. are also provided at NLDB.

#### 7. Academic courses

Academic courses for Scientific, Medical and technical professionals in Biobanking.

Contact us: NATIONAL LIVER DISEASE BIOBANK,
INSTITUTE OF LIVER AND BILIARY SCIENCES,
D-1, VASANT KUNJ, NEW DELHI-110070
Email- nldb.ilbs@gmail.com, www.nldb.in
Tel. +91-11-46300000 Ext. 24813.





# **National Liver Disease Biobank**

(DBT-ILBS initiative for Research and Personalised Medicine)





# Accelerating Research & Biobanking Sciences

Information Brochure for Clinical & Basic Research

#### **About biobank**

A biobank is a biorepository that stores biological samples along with clinical annotation for use in research. Biobank is an important resource in medical research, supporting many types of contemporary research like genomics and personalized medicine. It gives researchers access to data and biological samples representing a large number of people. Samples in biobanks and the data derived from those samples are used by multiple researchers for cross purpose research studies.

# **Purpose of biobank**

class research equipments.

The purpose of a biorepository is to maintain biological specimens, and associated information, for use in research fields. The biorepository assures the quality, and manages the accessibility and distribution/disposition of the biospecimens in its collection. In a Biobank (like NLDB), researchers can carry out their research from start to end in one go under one roof with advanced and world

# Types of samples can be stored / availed from NLDB

Fresh Tissue, Frozen Tissue, Formalin Fixed Tissue, Body fluid, blood, serum, plasma, urine, sputum, FFPE block, sample slide, DNA, RNA, PBMCS.

# **Services offered by NLDB**

- Standardized sample collection and storage of human and animal biosamples with clinical annotation as per international standards (-80 & Liquid Nitrogen).
- Clinical trials and project sample storage.
- Analytical services on mass spectrometer, flow cytometer with cell sorting, NGS, automated immunostaining, immunofluorescence, imaging.
- Training and courses in biobanking.
- Histopathological services.
- NLDB provides consultancy services to hospitals/research Institutes for opening or maintaining biorepository.

# How researchers can be benefited using NLDB services

As our primary and most important focus is to promote research programs and facilitate researchers with cutting edge technology and high quality bio-samples, researchers can avail the following benefits.

#### Biosample storage & processing

We collect and maintain highest quality of biospecimens as per international standards for researchers to get best and accurate results Our storage system assures almost no modification/changes in the state of the stored samples, we provide storage facilities in both nitrogen tanks &-80°C freezers based on your requirements. With highly trained technical staffs at our Biobank, we are able to process your samples right from the collection from the subject.

#### Customized data sets/clinical annotation.

Clinical annotations are maintained in LIMS software and also we can provide customized data sets as per project requirements.

#### Analytical services

Advanced analytical facilities like mass spectrometry, Flow Cytometry, Next Generation Sequencing, Immuno Histochemistry, Polymerase Chain Reaction etc. are available at NLDB.

# • Prospective sample collection

We have collaboration with various hospitals/satellite centres from where we are able provide samples based on your requirements.

#### Cohort studies

cohort studies for specific group is one of the unique feature of NLDB provided to researchers.

# Time management

We take your load for collection, data management, biospecimen handling, storage, analytical services which saves your time and help you to reach conclusion in faster and easier way.

## Saves money

This facility will acquire a non-profitable business and financial model, thus you can avail storage and analytical services at very nominal charges and joint projects with NLDB are also like to get funded easily because of requirement of less funds.