XENOTECH
A BioIVT Company

Research Biobank

XenoTech Offers Human Liver & Gallbladder Tissue Samples for Medical Research...

Disease-Diagnosed Research Specimens

XenoTech is committed to furthering medical science and contributing to the development of new treatments. In pursuit of this goal, we provide disease-diagnosed and normal tissue microarrays, pre-lysates, paraffin block slides, hepatocytes or subcellular fractions for scientific investigation. Our tissue is collected with the initial intent for transplant, distinguishing our specimens from post-mortem or needle biopsy collection.

The tissue samples in XenoTech's Research Biobank allow for the analysis of drug target expression and early markers of diseases, such as alcoholic or non-alcoholic fatty liver disease, across diverse US populations. In addition to diseased tissue, a selection of normal tissues is available to satisfy requirements of a control population.

Higher Quality Tissue Samples

Our Research Biobank samples are available in quantities larger than those obtained during needle biopsies and come from organs initially intended for transplantation. Our tissue specimens are collected in a timely manner with precise care taken to minimize downtime and preserve tissue viability. These circumstances distinguish our biobank from human tissue samples collected in a typical post-mortem, usually associated with several hours of a warm ischemia. Tissues deposited in the biobank are flash frozen in liquid nitrogen and stored at -80°C.

Donor and Specimen Information

XenoTech's Research Biobank samples include pathologic diagnosis and donor demographics, BMI, history of diabetes and alcohol use data, along with representative microphotographs. H&E slides are prepared for each lot to illustrate tissue conditions and, together with the patient's medical history, to offer a basic diagnosis. Macrovesicular fat, inflammation, ballooning hepatocytes and fibrosis are quantified, and the presence of fibrosis is confirmed with Masson's Trichrome staining.

Hepatocytes and NASH Donor Microsomes Available

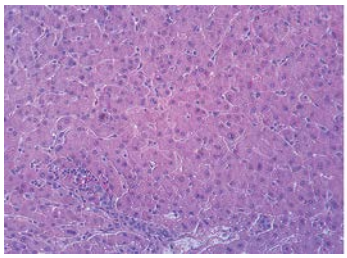
Hepatocytes have been prepared from certain donors, both healthy and those with early stages of alcoholic or non-alcoholic fatty liver disease or diabetes. Additionally, a pool of human liver microsomes from NASH donors has already been prepared. These test systems can be a convenient human model for an array of studies, such as ailments linked to obesity and alcohol consumption; for instance, *in vivo* to *in vitro* correlation of drug metabolism and biomarker expression that characterize fatty liver disease. Enzyme activity characterization is available for many lots, and in rare cases, plateable lots are available.

Benefits and Advantages

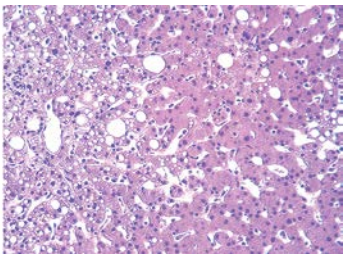
- Steatosis, steatohepatitis and normal tissue or hepatocytes
- Collected from transplant-quality organs in a timely manner
- Larger specimen size
- Diverse US organ donors
- Detailed donor and specimen information

Donor	Pathology Comments	Steatosis %	Age	Gender	Ethnicity	BMI	Diabetes	Alcohol
H1027	Steatohepatitis, scattered ballooned hepatocytes, centriolobular steatosis	50	63	F	Caucasian	43	Yes	No
H1028	Steatohepatitis, scattered ballooned hepatocytes	70	51	F	African American	40	Yes	No
H1060	Steatohepatitis, scattered ballooned hepatocytes	50	49	M	Hispanic	44.9	Yes	No
H1069	Steatohepatitis, scattered ballooned hepatocytes	25	39	M	Caucasian	62.7	No	No

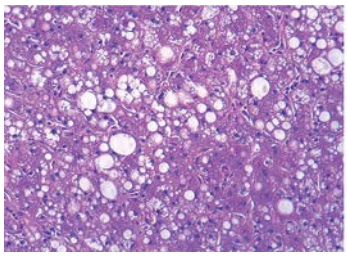
Example of donor characteristic summaries available at xenotech.com in the Research Biobank. Information about alcohol use was provided by the next of kin.



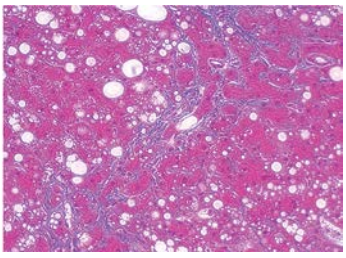
Example of normal tissue (macrovesicular fat <5%).



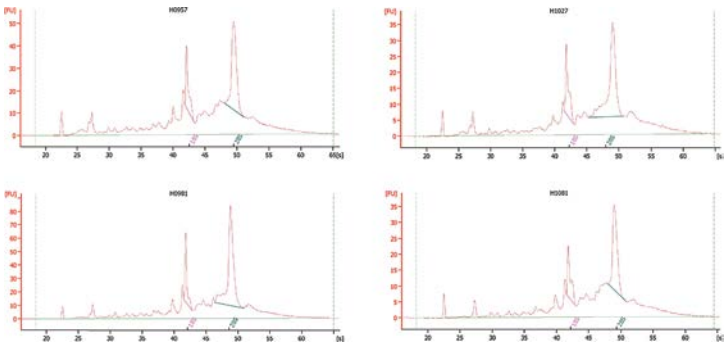
Example of steatosis (macrovesicular fat >5%).



Example of steatohepatitis (lobular inflammation, ballooning necrosis).



Masson's Trichrome staining confirmation of bridging fibrosis.



Example of ribosomal RNA bands. Intact total RNA can be isolated for the tissues deposited in the bank for as long as six years.

Contact us to learn more at **www.xenotech.com** or call **913.438.7450**

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