STRATEGIC VALORIZATION OF NORMAL BREAST CANCER BIOSPECIMENS AND DATA TO SUPPORT BIOPHARMACEUTICAL RESEARCH

WHAT IS THE KOMEN TISSUE BANK?

The Susan G. Komen Tissue Bank (KTB) at the IU Simon Cancer Center is dedicated to the collection of normal, healthy breast tissue cores and matching blood products from women without breast cancer. To date, the KTB has collected samples from over 14,000 healthy volunteer donors. These biospecimens are collected with strict adherence to standard operating procedures and include comprehensive medical annotation, and are shipped worldwide to researchers who are unraveling the biological implications and causes of breast cancer.

Types of Samples Collected:
- Fresh frozen tissue
- Formalin-fixed paraffin-embedded (FFPE) tissue
- Whole blood
- Plasma
- Saliva
- DNA from lymphocytes
- Cryopreserved tissue for cell culture

VITAL TISSUE BANK—RESEARCHER ACCESS TO DONOR DATA

The mission of the Komen Tissue Bank is to facilitate progress in breast cancer research by providing researchers across the globe with access to richly annotated, high quality normal breast tissue biospecimens and the data associated with these materials. To more deeply understand the evolution and developmental genetics of the normal mammary gland that is impeding the ability to effectively understand, treat and ultimately cure the disease.

WHAT CAN KOMEN TISSUE BANK SAMPLES BE USED TO DO?

Breast cancer research today is primarily focused on the collection and study of tumor tissue from patients who have been diagnosed with the disease. However, it’s the lack of knowledge regarding the biology and developmental genetics of the normal mammary gland that is impeding the ability to effectively understand, treat and ultimately cure the disease. The comparison of normal breast control samples to diseased samples has the potential to significantly advance the search for a cure to the disease. With this in mind, the Susan G. Komen Tissue Bank was established in 2007 to provide the global research community with access to a highly annotated, high quality normal breast tissue biospecimens and respective data.

HOW ARE KOMEN TISSUE BANK SAMPLES COLLECTED?

Blood and tissue cores are processed and aliquoted for storage within five minutes of acquisition.

Non-cancerous breast tissue samples and data from normal donors are valuable resources for breast cancer researches. A recent study shows that samples collected from normal donors have significantly fewer somatic alterations compared to samples collected from benign breast disease or mammoplasty. These normal breast tissue samples provide superior research controls for comparisons during breast cancer research studies and the related data collected from these samples can support advancements in the understanding of disease morphology and progression.

Types of Data Available:
- Patient demographics and medical history
- Breast cancer risk factor data
- Medication and treatment history
- Molecular histology data
- Microarray and miRNA images of breast core sections

WHAT DATA IS AVAILABLE WITHIN THE VIRTUAL TISSUE BANK?

The KTB Virtual Tissue Bank collects and stores high data points of annotation per sample. The raw and unanalyzed data does not identify the donor, study, researcher, research hypothesis or process. No proposal is required to access the digital data which is available on our website with the Virtual Tissue Bank.

UNIQUE VALUE OF NORMAL BREAST TISSUE SAMPLES AND DATA

• Cryopreserved tissue for cell culture
• DNA from lymphocytes
• Plasma
• Whole blood
• Blood and tissue cores are processed and aliquoted for storage within five minutes of acquisition.

STEPS TO ACCESSING KOMEN TISSUE BANK

1. Generate a hypothesis and design a study to test your hypothesis.
2. Perform a preliminary statistical analysis to determine the number of samples needed to test your hypothesis.
3. Access the Tissue Bank online and determine if KTB samples fulfill your research needs. For more information, contact the Komen Tissue Bank at 866-763-0047.
4. Obtain IRB approval from your institution and secure funding for your research project.
5. Submit your proposal to the Tissue Bank using the online form. Deadlines are February 1, June 15 and October 15.

Our limited understanding of the biology and developmental genetics of the normal mammary gland is a barrier to progress.

Finding a cure to breast cancer is highly dependent on the collection and analysis of diseased breast tissue. However, this research could be propelled even further through improved access to normal breast tissue and the data associated with these materials. To more deeply understand the evolution of the disease, it is necessary to compare abnormal, cancerous tissue to normal, healthy tissue. By studying normal tissue, we can accelerate research for the causes, and prevention of breast cancer.

BioStorage

The benchmark in sample management

www.komentissuebank.iu.edu

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