



Extra Low Temperature and Bio-preserved Breast Tissue

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Introduction

The Breast Tumor Bank is a centralized tissue procurement and repository that is meeting the demanding and increasing needs of researchers for fresh and frozen tissue collection.

We are 1 of 26 Satellite Banks within the Institutional Tissue Bank.

Tissue Collection

As the Breast Satellite Bank, we collect all breast cases that have consented to our Front Door Consent that allows a satellite bank to collect and store tissue under a banking protocol for future research use.



Institutional Research Database

TissueStation, an informatics system developed and maintained by the Clinical Research Information Systems Department (CRIS). Tissue collection data is stored in an Oracle database that is accessible over the web via an Oracle Forms client. Data elements are compliant with Cancer Biomedical Informatic Grid (caBIG) and Office of Biorepositories and Biospecimen Research (OBBR) requirements. Data is secured by Information Systems (IS) using firewall with user authorization, and backed up by contract.

TissueStation was selected because of its ability to communicate with internal clinical data repository systems, including the pathology Laboratory Information Systems (LIS), with other tissue banks, including the Institutional Tissue Repository, and with a clinical protocol based tissue request system. Outside of specific protocols, archived tissue can be searched and requested. Approval for access to TissueStation is controlled by the Core Principal Investigators.

Storage Facility

The freezer security system consists of continuous temperature monitoring with individual cryoprobes that record ambient temperatures in each freezer. The cryoprobes link to a centralized computer system in the institutional security office which is manned 24 hours a day, 7 days a week. If an inappropriately high freezer temperature is detected, the alarm notifies monitoring services who contacts Facilities and the emergency contact person.



Comparison of Freezer Temperatures

No significant difference of results between organelles and protein analysis for stored tissues at the various temperatures of -80°C and -198°C were observed.

Results of Tissue

Cryostat sections show that about 10-15% of tissue samples labeled as tumor were evaluated to have no tumor where as only 0.01% of normal tissue showed the presence of tumor.