



Pitt Biospecimen Core

Paraffin Translation Tissue Resource: Tissue arrays for cancer research

About the Paraffin Translational Tissue Resource

The PTTR includes already developed and partially annotated tissue microarrays (TMA) from cancer cases provided by the University of Pittsburgh to The Cancer Genome Atlas (TCGA) project. The PTTR provides central support for University of Pittsburgh research programs needing TMAs for cancer research. This resource is available to faculty research investigators of the University of Pittsburgh who have eligible research needs.



The resource was funded through a partnership between the *UPMC Hillman Cancer Center* and the *Clinical and Translational Science Institute (CTSI)*. The resource is distributed, maintained, and replenished through the Pitt Biospecimen Core (PBC) based on a partnership and funding from the Department of Pathology (DOP) within the School of Medicine, and the Office of the Senior Vice Chancellor for Health Sciences (OSVCHS) and fee-for-service charges.

The cases used in the creation of each TMA were obtained from consented patients (surgical cases) seen at the UPMC and submitted to the clinical surgical pathology department for processing into paraffin blocks. The surgical cases yielded correlating frozen tissue samples that were subsequently submitted to TCGA research center. There were 19 tumor types in total that were part of the TCGA project. Of those, eight types were selected for inclusion in the initial PTTR.

The cancer types included in the available TMA resource are described below.

Breast	Infiltrating ductal carcinoma and normal breast tissue
Lung	Adenocarcinoma with normal lung
Lung	Squamous cell carcinoma with normal lung
Endometrium	Endometrial carcinoma and normal endometrium
Bladder	Papillary urothelial carcinoma and normal bladder tissue
Ovary	Ovarian serous cystadenocarcinoma and normal ovary
Melanoma	Metastatic melanoma and normal skin
Head and Neck	Squamous cell carcinoma

Details of TMA blocks available by cancer type: All cases are from the TCGA cohort except where noted.

Breast		Lung		Endometrium		Bladder		Ovary		Melanoma		Head and Neck	
258 total cases		52 total cases		45 total cases		23 total cases		61 total cases		41 total cases		78 total cases	
Total cases cored		Total cases cored		Total cases cored		Total cases cored		Total cases cored		Total cases cored		Total cases cored	
Group 1	60	Adeno	18	42		23		55		37		60	
Group 2	73	SCC	8									18 Non TCGA related cases were added	
Group 3	65												
TMA blocks made		TMA blocks made		TMA blocks made		TMA blocks made		TMA blocks made		TMA blocks made		TMA blocks made	
Group 1	1-1 200 cores	Adeno	1 78 cores	1	237 cores	1	47 cores	1-1	154 cores	1	55 cores	1-1	110 cores
	1-2 200 cores	SCC	1 32 cores					1-2	194 cores			1-2	107 cores
Group 2	2-1 198 cores												
	2-2 191 cores												
Group 3	3-1 193 cores												
	3-2 190 cores												

Additional important information: The TMAs are comprised of tumor, normal and metastatic disease (when applicable) from selected areas of the clinical paraffin blocks and placed into a new recipient block. A template

(layout grid) will be provided for reference and orientation purposes; the template (and block) contains up to 4 cores per case (de-identified) and is unique to its corresponding block. An H&E image of a slide from the corresponding block will be provided; an extra slide will not be cut and stained for this purpose. Any custom annotation or honest brokering can be provided. Please refer to the table below for pricing. Additional clinical blocks are available for each case found in the TMA; slides from these blocks can be ordered from the PBC.

Paraffin Translational Tissue Resource Price Table	
1 paraffin section	\$150.00 per slide
Template and H&E image	Included
Custom Annotation / Honest Broker	\$40.00 per hour (1 hour minimum)

To request slides from one of the arrays listed above, please follow the instructions below.

- 1) The PI or designee must go online to the PBC’s Project Request Management Tool at <https://biotrack.upmc.edu/>.
- 2) Enter all necessary information as well as uploading any pertinent documents.
 - a. All requests must have prior IRB approval. Exempt protocol and approval letter must be submitted with the online request.
 - b. Reference TMA request in the summary under Request Details.
 - c. Select **Hillman\CTSI TMA** as the request type.
 - d. A completed RH request form <https://www.pittbiospecimencore.pitt.edu/forms>
 - i. The “Description of Work Needed” section must indicate the number of slides requested, and staining (IHC) to be performed.
 - ii. Any special notations should be documented on the form, i.e. dipping of slides for preservation.
- 3) The Project Manager will review the request and uploaded documents entered into the tool and contact the PI if there are any issues. You will be asked to provide the following:
 - a. A literature citation or brief description of other preliminary TCGA molecular data that supports the use of the TCGA TMA resource for the proposed project.
 - b. A microphotograph of the stained target molecule for the study for tissue of the same type as the requested TMA.
 - c. A statement that the IHC antibodies that you will use for this project has been titrated.

If the requestor is the PI of a SPORE responsible for collection of TCGA TMA material, exceptions to these requirements will be accommodated.

- 4) The Project Manager will forward the request and associated documentation to the PTTR Tissue Utilization Committee for approval.
- 5) The Project Manager will assign the project to the Research Histology personnel for preparation and distribution of the requested slides.
- 6) An email will be sent to the researcher upon completion.

Please remember to cite the resource in your grants and publications: The Tissue and Research Pathology Services/ Pitt Biospecimen Core receive funding from the National Institutes of Health through Grant Number UL1TR000005 and P30CA047904.

Please [click here](#) for information regarding our other TMA services as well as our Research Histology & IHC services.