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APPLICATION FOR TISSUE MICROARRAY SLIDES

# DIRECTIONS

The Principal Investigator (PI) responsible for overseeing the project and controlling the laboratory and personnel who will receive, use and process the requested specimens should complete this application. A processing fee will be applied to each sample/aliquot to reimburse the CHTN for the processing and distribution of samples. Each PI is also responsible for all shipping costs

Any transfer of samples, aliquots, derivatives or associated clinical data to collaborating personnel or laboratories that are not under the direct supervision of the indicated PI requires the following:

* A written justification of the need to transfer the materials and benefit to the applicant’s research.
* A copy of the AGREEMENT FOR USE OF TISSUE MICROARRAY (TMA) SLIDES signed by the collaborator.

The CHTN does not supply samples to specimen banks whose purpose is distribution to third-party researchers; those researchers should be encouraged to apply to the CHTN directly.

The information in these forms is necessary in order to document correctly your request for TMA slides and to ensure that the CHTN operates within the guidelines of the National Cancer Institute. When submitting a written request for services:

1. Please print neatly or type.
2. Patient identity is confidential. Samples on the TMA slides have been fully anonymized, and no additional donor or clinical information is available beyond what is provided with the TMA slides or made publicly available through the CHTN TMA website.
3. Descriptions of currently available TMAs and fees are available at <http://chtn.sites.virginia.edu/>. **NOTE:** The CHTN does not provide or construct custom TMAs.
4. The PI is responsible for remission of processing fees to the Mid-Atlantic division for each TMA section provided, including fees for any additional services performed, and any shipping costs not directly billed to the applicant’s courier account.
5. Investigators requesting TMA slides from the CHTN should consult their local Institutional Review Board for policies and procedures for use of anonymous human tissue samples, such as are contained in the CHTN tissue microarrays. **NOTE:** The CHTN does not require documentation of IRB approval or exemption in order to request these materials.
6. Please provide a signed copy of the AGREEMENT FOR USE OF TISSUE MICROARRAY (TMA) SLIDES (Agreement included below). **The language in this agreement is NOT to be altered.**
7. Please forward your completed application and direct any questions to the Mid-Atlantic Division:

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| Mid-Atlantic DivisionTel: 434-924-9879Fax:434-924-9438CHTN-MidAtl@hscmail.mcc.virginia.eduDivision Coordinator: Rebecca Blackwell PI: Dr. Christopher Moskaluk | *Mailing Address*:CHTN, Mid-Atlantic Division University of Virginia Dept. of Pathology Box 800904Charlottesville, VA 22908 |

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| PRINCIPAL INVESTIGATOR INFORMATION |
|  First Name:       Middle Name:       Last Name:       Salutation:       Degree:       Title:        Institution Type: [ ]  Academic/Government [ ]  Commercial [ ]  Non-profit **Mailing address:** Institution:        Department:  Address 1:       Address 2:        City:       State:       Zip code:       Country:       Tel#:       Alt. Tel#:       Fax#:       Email:       |

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| LABORATORY CONTACT INFORMATION |
|  First Name:       Middle Initial:       Last Name:       Title:       Tel#:       Alt. Tel#:       Fax#:       Email:       First Name:       Middle Initial:       Last Name:       Title:       Tel#:       Fax#:       Email:       |

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| SHIPPING INFORMATION |
|   FEDEX Account# (\*required):       \*If a FEDEX Account # is not available, investigators will be billed for shipping costs. Shipping address same as mailing address: [ ]  Attention:       Institution:        Department:      Address 1:        Address 2:       City:       State:       Zip Code:       Country:       Tel#:       Email:       |

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| BILLING AND PAYMENT INFORMATION |
| Billing contact: First Name:       Middle Initial:       Last Name:       Title:       Tel#:       Alt. Tel#:       Fax#:       Email:      Billing address:  Same as mailing address: [ ]  Attention:       Institution:        Address 1:       Address 2:       City:       State:       Zip code:       Country:       Tel#:       Alt. Tel#:       Fax#:       Email:      Please provide the email address for Accounts Payable if e-invoicing is availablePayment details:[ ]  Purchase Order (PO#) Purchase Order (PO)#:       PO Expiration Date:       PO Amount:       [ ]  Credit Card (CHTN will call billing contact for account information at the time of each shipment) Copy of Bill to Investigator: [ ]  Yes [ ]  No |

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| PROJECT INFORMATION |
| Project Title:     Funding Information:  Tissues will be provided to investigators on a rotating basis in the following priority order: 1. Peer reviewed funded investigators (including Federal and National laboratories).
2. New investigators and academic investigators developing new research projects.
3. Other investigators.

To help determine your priority, please include your major research grant. Institutional and other funding sources may also be listed. **Funding Source #1:**      Grant# and Title:       Grant Start Date:       Grant End Date:      **Funding Source #2:**       Grant and Title#:       Grant Start Date:       Grant End Date:       Currently unfunded: [ ]  Please explain:      Please provide below a short research summary of the proposed research on the TMA slides you are requesting from the CHTN: (please click on the field to start typing)     How did you first hear about the CHTN?: (please click on the field to start typing)       |

If applicable, please enter your Open Researcher and Contributor ID (ORCID):

If you do not have an ORCID but would like to obtain one, please click this [link](https://orcid.org/register) and follow the steps to apply.

**AGREEMENT FOR USE OF TISSUE MICROARRAY (TMA) SLIDES**

The recipient/investigator agrees that the TMA slides provided by the Cooperative Human Tissue Network (CHTN) grantees (Duke University, The Ohio State University, University of Pennsylvania, University of Virginia, Vanderbilt University Medical Center and Nationwide Children’s Hospital) will be used only in the laboratory of the recipient principal investigator for the research and/or educational purposes specified in this application and shall be used for no other purpose. The recipient agrees not to attempt to obtain information identifying the individuals providing tissues to the CHTN. The recipient agrees that it shall not sell any portion of the tissues provided by the CHTN, or products directly extracted from these tissues (e.g. protein, mRNA or DNA). The recipient agrees that the principal investigator shall not transfer tissue (or any portion thereof) supplied by the CHTN to internal or external third parties without the prior written permission of the CHTN.

The recipient understands that the tissue samples contained on the TMA slides are anonymized and no further clinical information is available other than the data that accompany the arrays or made publicly available through the CHTN website.

The investigator agrees to contact his/her Institutional Review Board regarding local policies and procedures for the use of anonymous human tissue samples, such as are contained in CHTN tissue microarrays.

The tissue microarray slides are provided as a service to the research community without warranty of merchantability or fitness for a purpose or any other warranty, express or implied. Neither the CHTN nor the grantees outlined above accepts any responsibility for any injury (including death) damages or loss that may arise either directly or indirectly from their use by recipient.

The recipient agrees to acknowledge the contributions of the CHTN in all publications resulting from the use of these TMA slides. Recommended wording for the methods or acknowledgement section is as follows: *“Tissue samples were provided by the Cooperative Human Tissue Network (CHTN) which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects.”*

**When tissue is to be used at State Institutions:** The institution agrees to be responsible for any claims, costs, damages, or expenses resulting from any injury (including death), damage or loss that may arise solely from the receipt, handling, storage and use of tissues received from the CHTN to the extent permitted under the laws of this State. The undersigned certifies that they have authority to execute this agreement on behalf of the recipient institution.

**When tissue is to be used at U.S. Government Agencies:** The US government assumes all risks and responsibilities in connection with the receipt, handling, storage and use of tissues received from the Cooperative Human Tissue Network. The United States assumes liability for any claims, damages, injury or expense arising from the use of the material or any derivative, but only to the extent provided under the Federal Tort Claims Act (28 U.S.C. Chap. 171).

**When tissue is to be used by all other institutions:** The institution agrees to assume all risks and responsibility in connection with the receipt, handling, storage and use of tissues from the Cooperative Human Tissue Network. It further agrees to indemnify and hold harmless the CHTN, the grantees outlined above and the United States Government from any claims costs, damages or expenses resulting from the use of the tissues provided by the CHTN. The undersigned certifies that they have authority to execute this agreement on behalf of the recipient institution.

**BY MY SIGNATURE I AGREE TO THE TERMS SET FORTH IN THE ABOVE AGREEMENT**

Name of PI Recipient

Acknowledgement of PI Recipient Date

Name of Official Authorized to Sign for the Agency

Authorized Signature of Agency Official Date

**UPON RECEIPT OF THESE SIGNED UNDERSTANDINGS AND THE INFORMATION REQUESTED ABOVE, THE COOPERATIVE HUMAN TISSUE NETWORK WILL CONSIDER THIS REQUEST AND ALL FUTURE REQUESTS FOR TMA SLIDES.** Specific questions about your application should be directed to the Mid-Atlantic Division Coordinator. Other questions may be directed to the NCI Program Director, Dr. Rodrigo Chuaqui at 301-496-7147.

**TISSUE MICROARRAY REQUEST INFORMATION FORM**

**Current TMA designs are listed below. You may request up to a maximum 10 slides per array design, subject to CHTN approval and availability.** Slides provided will be serial sections from the same TMA block. All replicate blocks of a particular design utilize cores from the same set of donors. Unstained histologic sections are 4 microns thick, on charged glass slides. Please see the CHTN website, <http://chtn.sites.virginia.edu/>, for additional details.

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| **TISSUE MICROARRAY SLIDES** |
| Please check the desired TMAs below and indicate the number of slides requested per design.[ ]  **Test TMA** # of slides requested:      TMA series CHTN Test contain 6 human tissue types (colonic mucosa, prostate, breast carcinoma, spleen, liver and uterine smooth muscle) in 0.6 mm spot sizes. These are useful for determining assay conditions and procedures before using more expensive comprehensiveTMA slides.[ ]  **Normal Biospecimen** **TMA** # of slides requested:      The normal tissue CHTN\_NORM3 TMA contains 49 human tissue types in 1.0 mm spot sizes. Most samples are of normal, non-neoplastic adult tissue obtained from surgical resection specimens, excepting parathyroid from a hyperplastic parathyroid gland and central nervous system tissue (cerebral cortex and white matter) from autopsy.This TMA is designed provide researchers with a screening tool containing most of the cell types present in the human body.[ ]  **Human Central Nervous System TMA** # of slides requested:      The CHTN CNS1 TMA samples 12 areas of the central nervous system and supporting structures, capturing most of the major cell types of the brain and spinal cord. Each target tissue type is sampled three times with 1.5 mm cores. This TMA is meant to provide an initial survey tool for determining gene expression patterns in different cell types of the central nervous system.[ ]  **Normal Endometrial Menstrual Cycle TMA** # of slides requested:      The CHTNEndoN1 TMA samples normally functioning endometrium through the endometrial cycle. There are 10 cases each of proliferative-phase endometrium, 10 cases each of secretory endometrium at post-ovulatory days 16-18, 19-20, 21-22, 23-24, 25-26 and 7 cases each of secretory endometrium at post-ovulatory days 27-28. Each target tissue type is sampled twice with 1.0 mm cores. This TMA is meant to provide an initial survey tool for determining gene expression patterns in endometrial tissue during the menstrual cycle.[ ]  **Colorectal Carcinoma Progression TMA**  # of slides requested:      The CHTN\_CRC2 TMA contains up to 20 cases of non-neoplastic colonic mucosa, 14 cases of adenomatous polyps, 14 cases of primary colorectal adenocarcinomas, 7 cases of adenocarcinoma metastatic to regional lymph nodes and 7 cases of adenocarcinoma metastatic to distant organs. Each case is sampled three times with 0.6 mm cores. This TMA represents a limited number of cases that may detect strong trends in differential gene expression and is intended for pilot surveys and generation of hypotheses. This TMA does not contain case numbers of sufficient quantity to prove the clinical utility of a marker.[ ]  **Ovarian Carcinoma Survey TMA**  # of slides requested:      The CHTN OvCa2 TMA contains examples of human ovarian carcinoma and ovarian borderline tumors representing the major histologic types of epithelial ovarian tumors. Each case is sampled four times with 0.6 mm cores. The TMA design includes 12 cases each of serous papillary carcinoma, clear cell carcinoma, endometrioid adenocarcinoma and mucinous adenocarcinoma. Another 6 cases each of serous and mucinous borderline tumors are provided. In addition 24 cases of non-malignant tissues (proliferative endometrium, fallopian tube, serous and mucinous cystadenomas) are represented. This TMA may detect strong trends in differential gene expression among the different histologic types of ovarian carcinoma, and is intended for pilot surveys and generation of hypotheses. This TMA is not designed to prove the clinical utility of prognostic biomarkers.[ ]  **Breast Cancer Progression TMA**  # of slides requested:      The CHTN\_BrCaProg3 TMA contains non-neoplastic breast tissue, ductal carcinoma in situ (DCIS), infiltrating ductal carcinoma of the breast, infiltrating lobular carcinoma of the breast, and cases of adenocarcinoma metastatic to regional lymph nodes. Each case is sampled one time with a 2 mm core. The TMA design includes 14 cases of non-neoplastic breast, 14 cases of DCIS, 21 cases of primary carcinoma and 7 cases of metastatic carcinoma. Histologic quality assurance limits ensure a minimum of 7 cases of non-neoplastic breast, 15 cases of infiltrating carcinoma primary to the breast and 4 cases of metatstatic carcinoma. Due to the difficulty in capturing pre-invasive neoplasia, a minimum number of DCIS cases is not being guaranteed. This TMA represents a limited number of cases that may detect strong trends in differential gene expression, and is intended for pilot surveys and generation of hypotheses. This TMA does not contain case numbers of sufficient quantity to prove the clinical utility of a marker.[ ]  **Prostate Cancer Tumor Progression TMA**  # of slides requested:      The CHTN\_PrC\_Prog1 TMA contains of prostate epithelium representing the stages of tumor progression in prostate adenocarcinoma. Each case is sampled one times with a 1.5 mm core. The TMA design includes 10 cases each of non-neoplastic prostate glands, benign prostate glands from areas of benign prostatic hyperplasia (BPH), high-grade prostatic intraepithelial neoplasia (PIN), prostate adenocarcinoma, Gleason score 5-6, prostate adenocarcinoma, Gleason score 7, and prostate adenocarcinoma, Gleason score 8-10. This TMA represents a limited number of cases that may detect strong trends in differential gene expression and is intended for pilot surveys and generation of hypotheses. This TMA does not contain case numbers of sufficient quantity to prove the clinical utility of a marker.[ ]  **Other TMA**       # of slides requested:      [ ]  **Other TMA**       # of slides requested:      [ ]  **Other TMA**       # of slides requested:      For additional information on TMA slides, please contact the Mid-Atlantic Division at (434) 924-9879 or email your query to the CHTN Mid-Atlantic Division (CHTN-MidAtl@hscmail.mcc.virginia.edu).  |