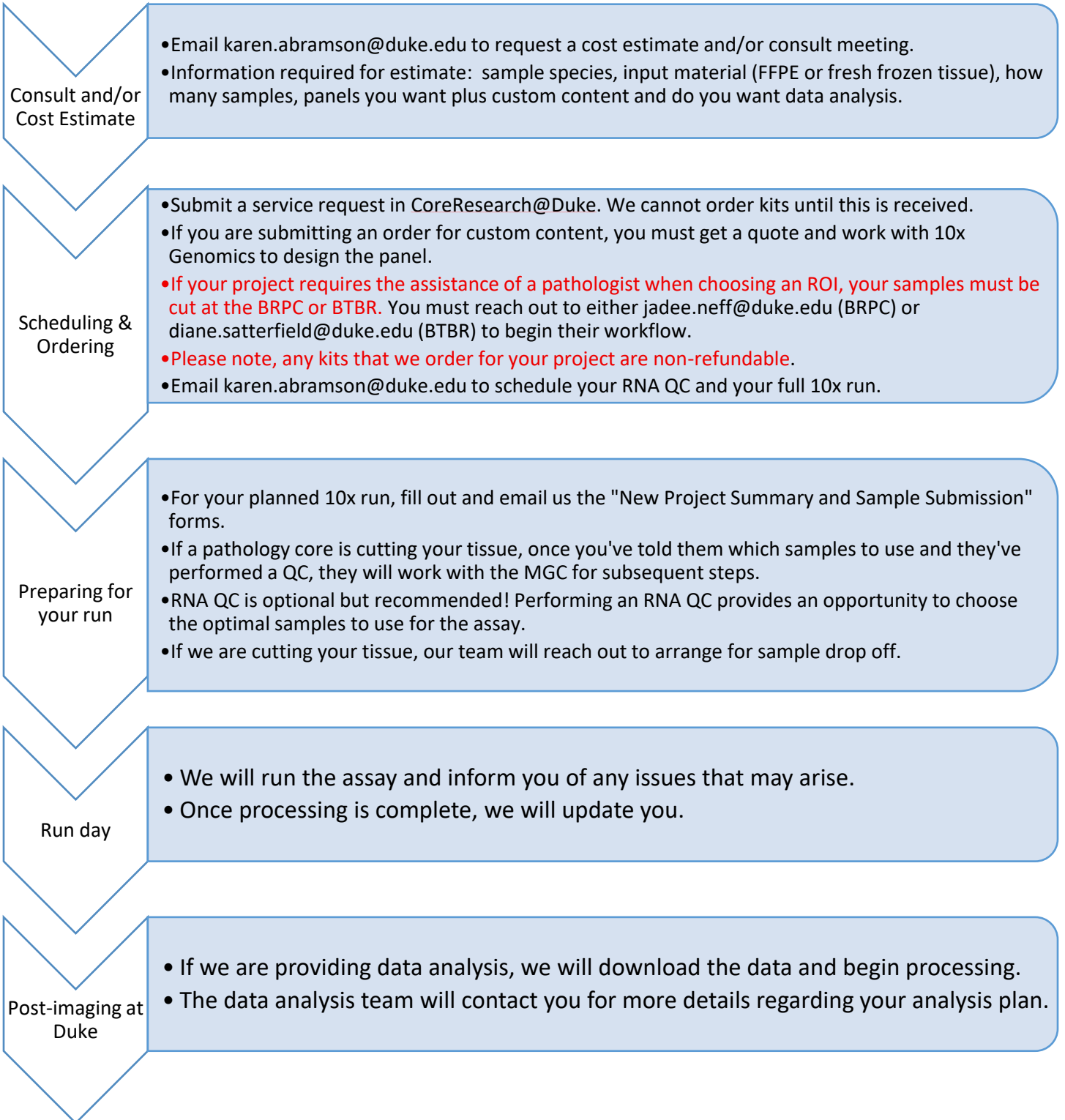


Duke Molecular Genomics Core 10x Genomics Xenium Project Workflow



Duke Molecular Genomics Core

10x Genomic Xenium Sample Preparation Guidelines

It is essential that you follow the sample preparation protocol provided by 10x Genomics® and the MGC.

The 10x Genomics® Xenium assay uses both fresh frozen and FFPE tissue placed on the surface of a Xenium slide. An RNA QC is not required but could be a good indicator as to how well a tissue may perform or be a good metric to have for troubleshooting later. An H&E and/or a Dapi stained tissue could help determine quality of morphology and nuclei intactness.

The MGC does not have a pathologist on staff, any project requiring a pathologist to identify a region of interest must either be cut in your own lab or work with a pathology core. The BRPC or BTBR has been trained to cut slides for Xenium and have workflows in place.

BRPC (Jadee Neff: jade.neff@duke.edu)

BTBR (Diane Satterfield: diane.satterfield@duke.edu)

The quality of RNA in a sample is greatly affected by collection processing, storage and age of sample. It is recommended for new tissue collection to reduce time between collection of tissue and preservation. Extended time between collection and preservation will greatly reduce quality. Always keep fresh tissues on ice while processing. FFPE samples should be stored at 4C to best preserve quality.

It is recommended to optimize freezing protocols to reduce cracking, crystallization or tissue distortion. Following 10x's recommended guidelines for freezing is a good place to start.

The best way to ensure good quality data is to strictly follow the provided sample preparation guidelines.

The full 10x Genomics' Tissue Preparation Guide can be found here:

FFPE:

[10x Genomics FFPE Tissue Prep Guide](#)

Fresh Frozen:

[10x Genomics Fresh Frozen Tissue Prep Guide](#)

Please don't hesitate to ask questions! We're here to help! Please email DMPI-MGC@dm.duke.edu or karen.abramson@duke.edu.