

USC Norris Molecular Genomics Core

10x Genomics Visium Project Workflow

coregenomics@med.usc.edu (323) 865-0511

Consultation and Cost Estimation

- To start the submission process, please email Stephanie Tring at tring@med.usc.edu
- An in-person or zoom meeting will be scheduled to discuss your project.
- Based on the information provided, a formal quote will be emailed to you.

Please prepare the following information prior to the meeting:

1. The tissue type, form of sample (Fresh Frozen or FFPE), and how many.
2. Do you need assistance, or have you already discussed with 10x Genomics about the Visium reagents?
3. If you need assistance with histology work, we will schedule to meet with the Pathology Core.

Scheduling and Submitting

- After you have reviewed the quote and are ready to start your project, please email Stephanie, tring@med.usc.edu, and submit the MGC Spatial Submission Form
- MGC can assist in ordering the reagents. We will need confirmation from you with your USC Worktag and Cost Center to place the Visium reagents order.
- If the Pathology Core is cutting your tissue, please work with them to submit your samples. MGC will work with the Pathology Core for the subsequent steps.

Pre- Visium Run Quality Control

- We will need the following materials for Quality Control:
 - 1 H&E stain with 40x scanned image, or you can supply 1 unstained 5-10um slide
 - The 6x6mm region of interest (ROI) selection, this can be provided from the H&E image.
 - DV200 score from a serial section, or you can supply 1 unstained slide or scroll at 5um for RNA QC

Visium Run

- If samples have passing QC scores, we will schedule the Visium run
- The Visium run starts with a 5um (FFPE) or 10um (Fresh Frozen) sectioned onto charged slide.
- Each capture area corresponds to a single-use slide. Tissue transfer is performed in a one-to-one manner, one slide to one capture area.
- There are 2 capture area per Visium slide, therefore, it runs 2 slides at a time.
- The Visium HD run takes 10 working days. We will schedule to deliver that data via CARC or on an external hard drive.