

NanoString GeoMX Digital Spatial Profiler

-The GeoMx Digital Spatial Profiler is used to spatially resolve RNA (whole transcriptome) or proteins (up to 96) within multiple regions of interest (ROIs) on FFPE or FF tissue sections.

-ROIs can be defined by first staining the tissue sections with antibodies (morphology markers) that identify various tissue compartments or cell types of interest.

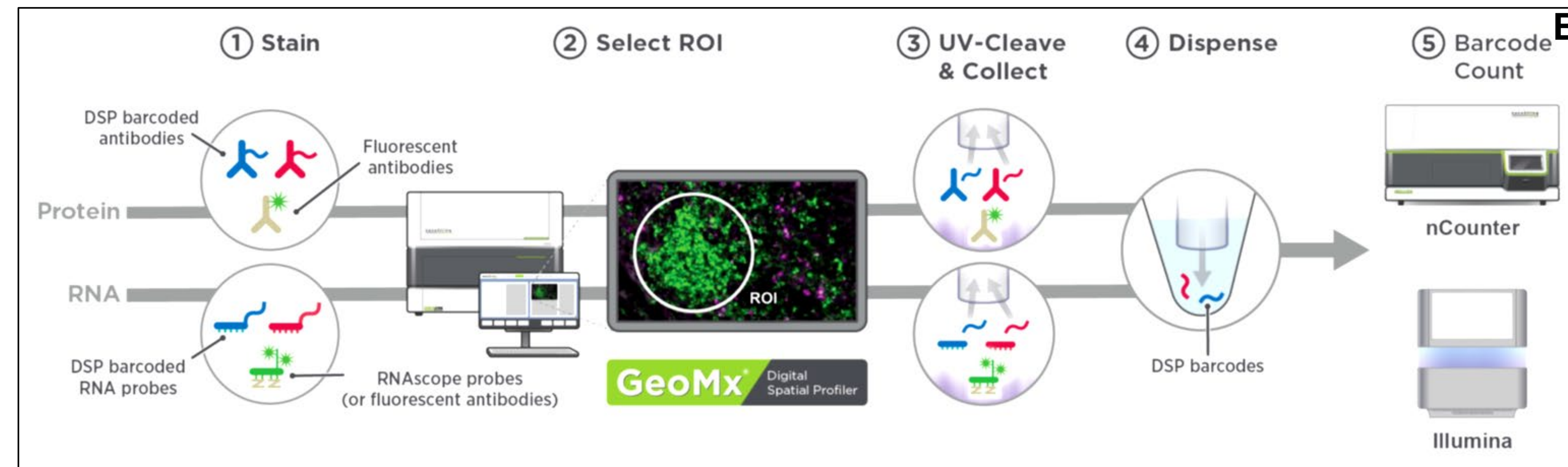
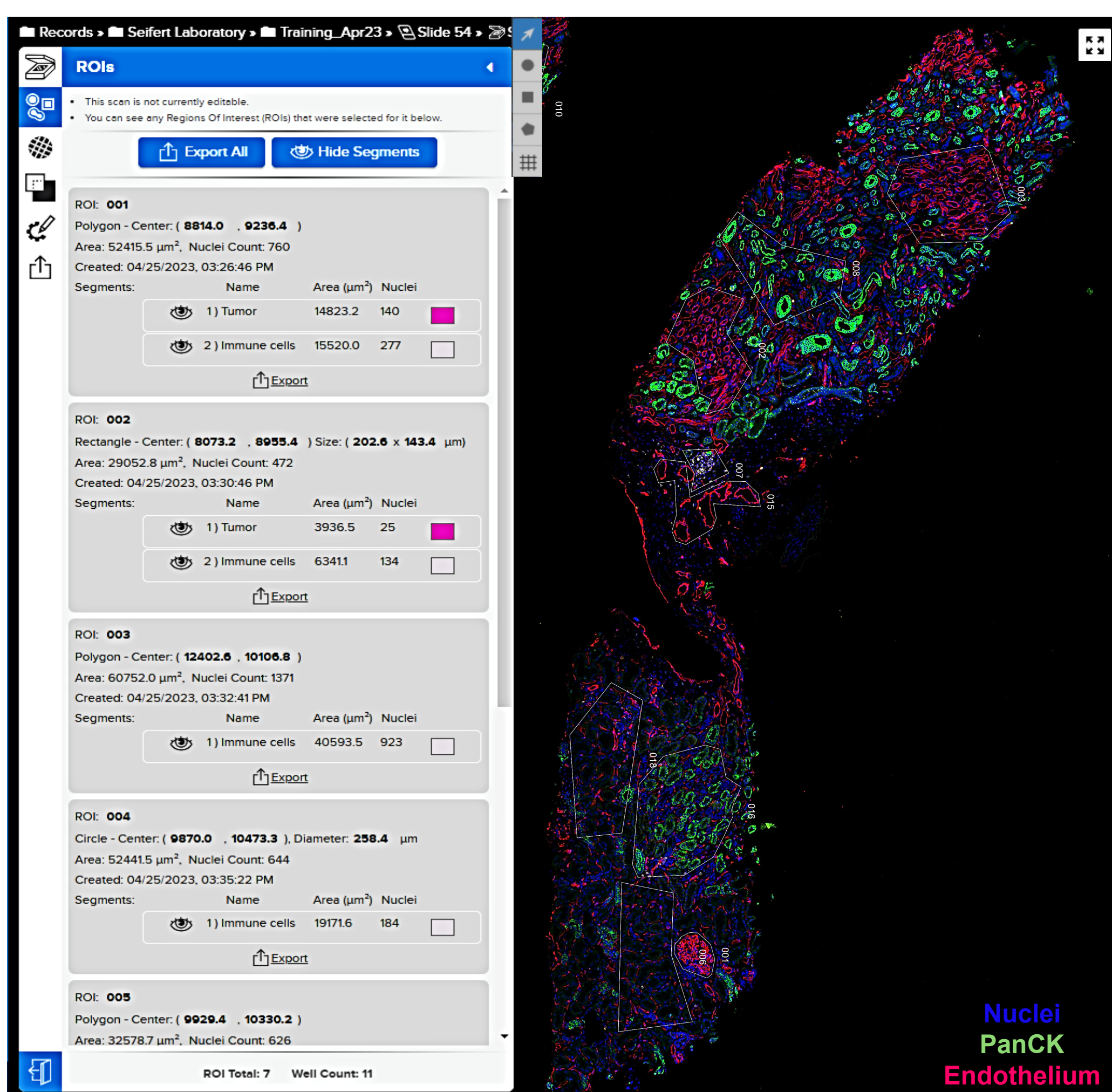
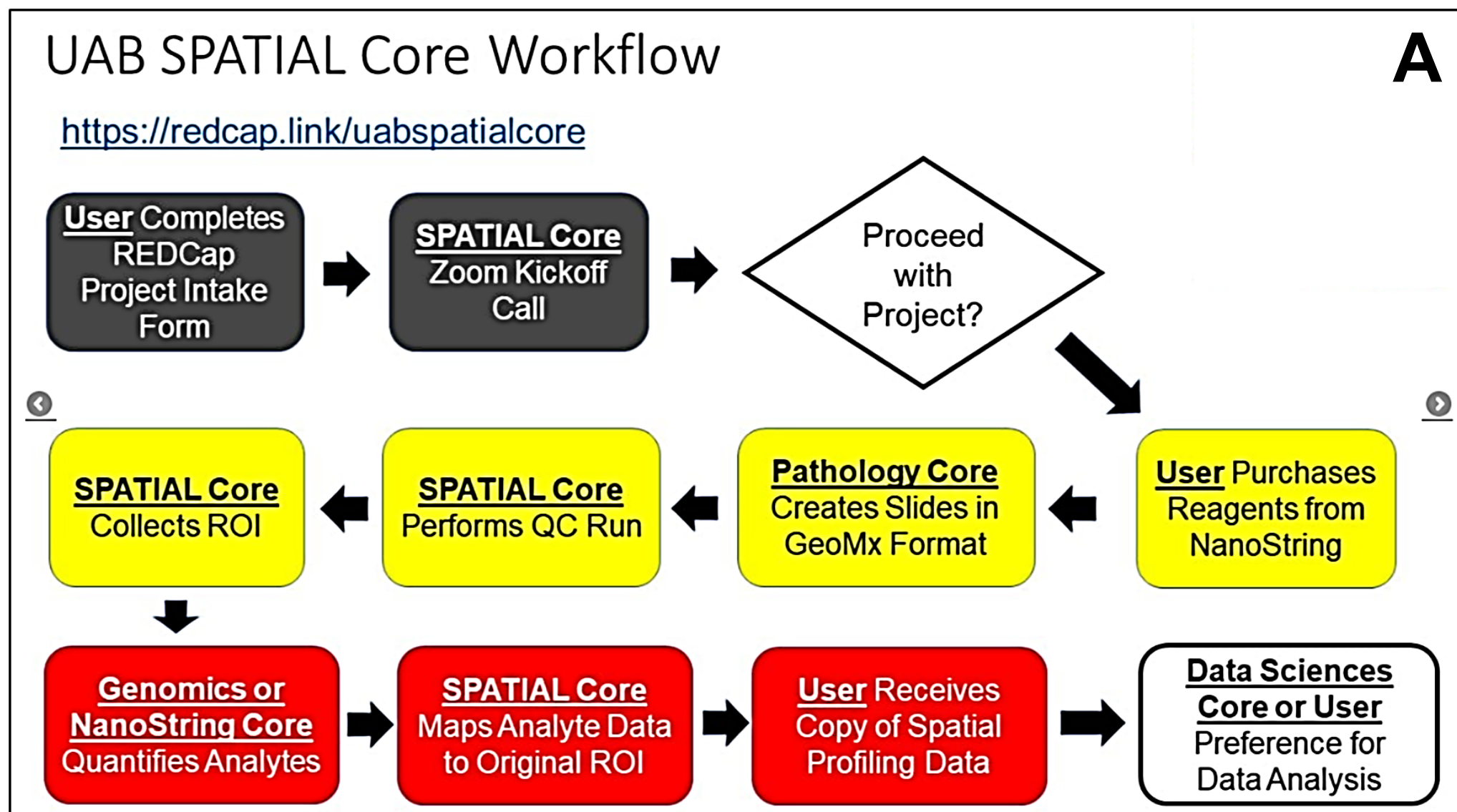
-This allows in-depth NGS-based analysis of transcriptomic profiles in specific cell populations with morphological and spatial context.

Scheduling a Consultation

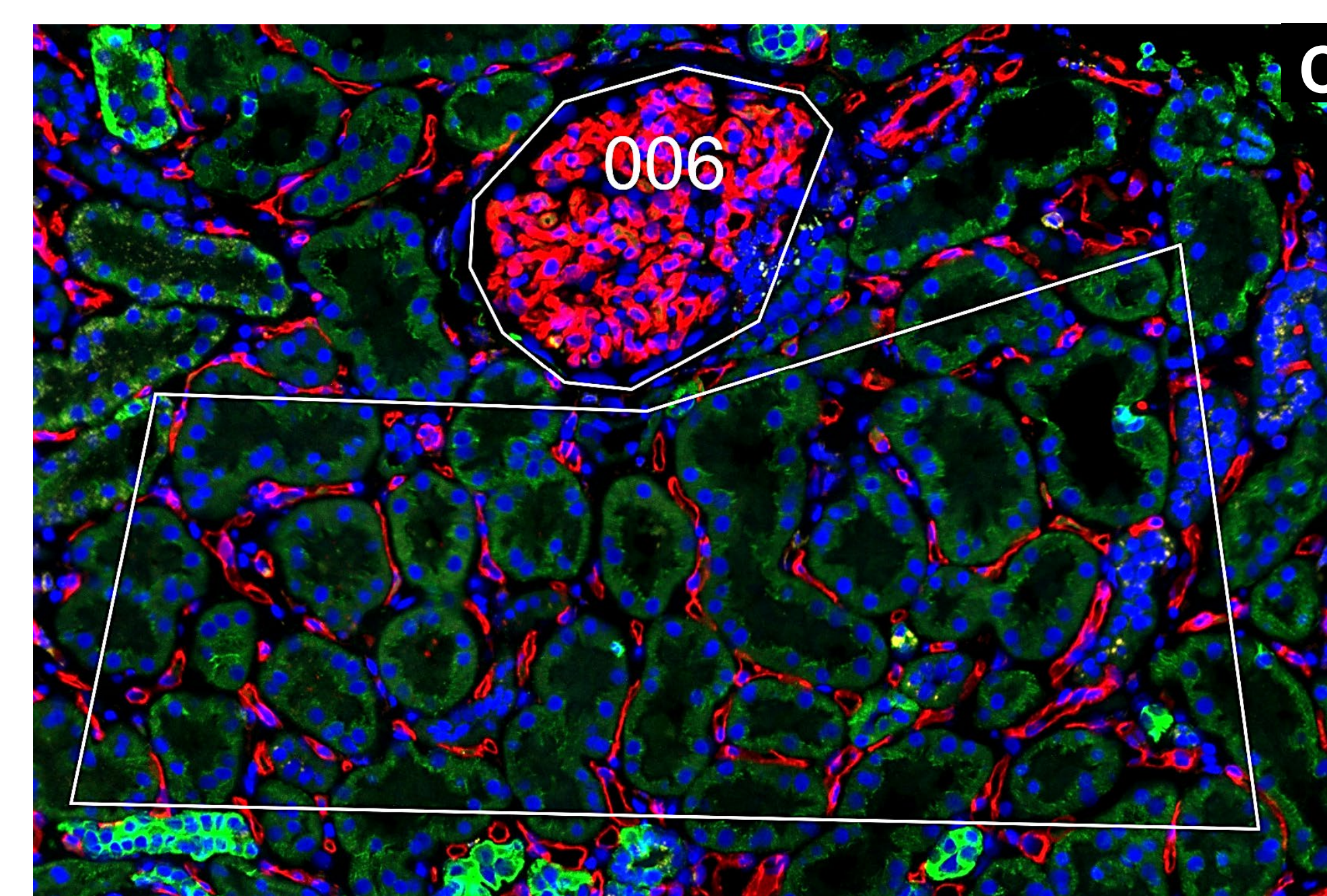
-Researchers interested send email to the Core.

-A REDCap Service Request form is completed with details about your project.

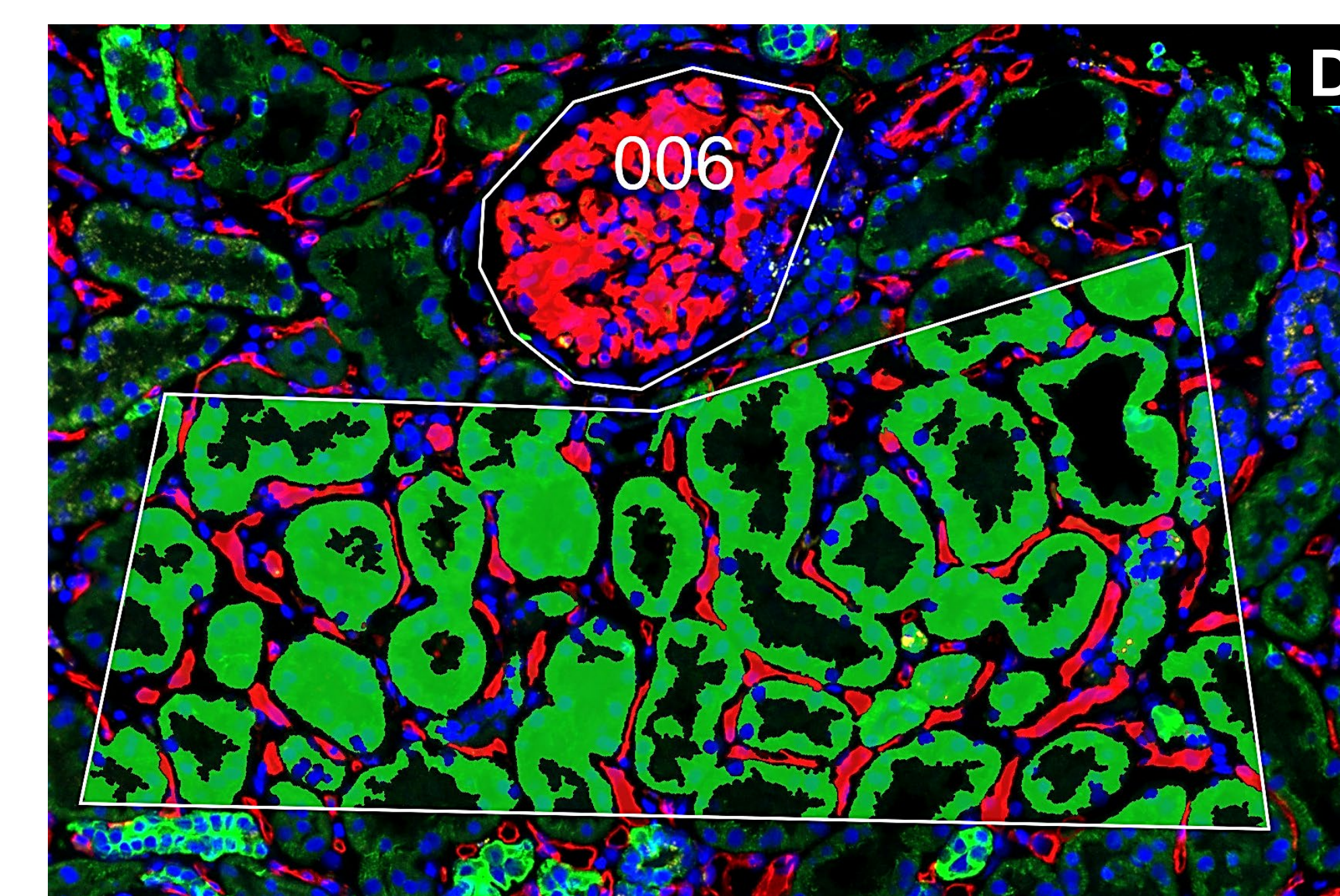
-We review if the researcher is ready; discuss number and type of samples, targets of interest (RNA/protein), morphology markers, selection strategies for ROIs, workflow, timelines, and general overall costs. Please allow yourself enough time for planning before starting your project.



Before segmentation



After segmentation



A) UAB SPATIAL Core workflow. B) GeoMX DSP workflow. C, D) Images of ROIs before (C) and after (D) segmentation. Images by Michael Seifert MD, Miguel Melendez-Ferro PhD, Ahmad Mohammad BS.

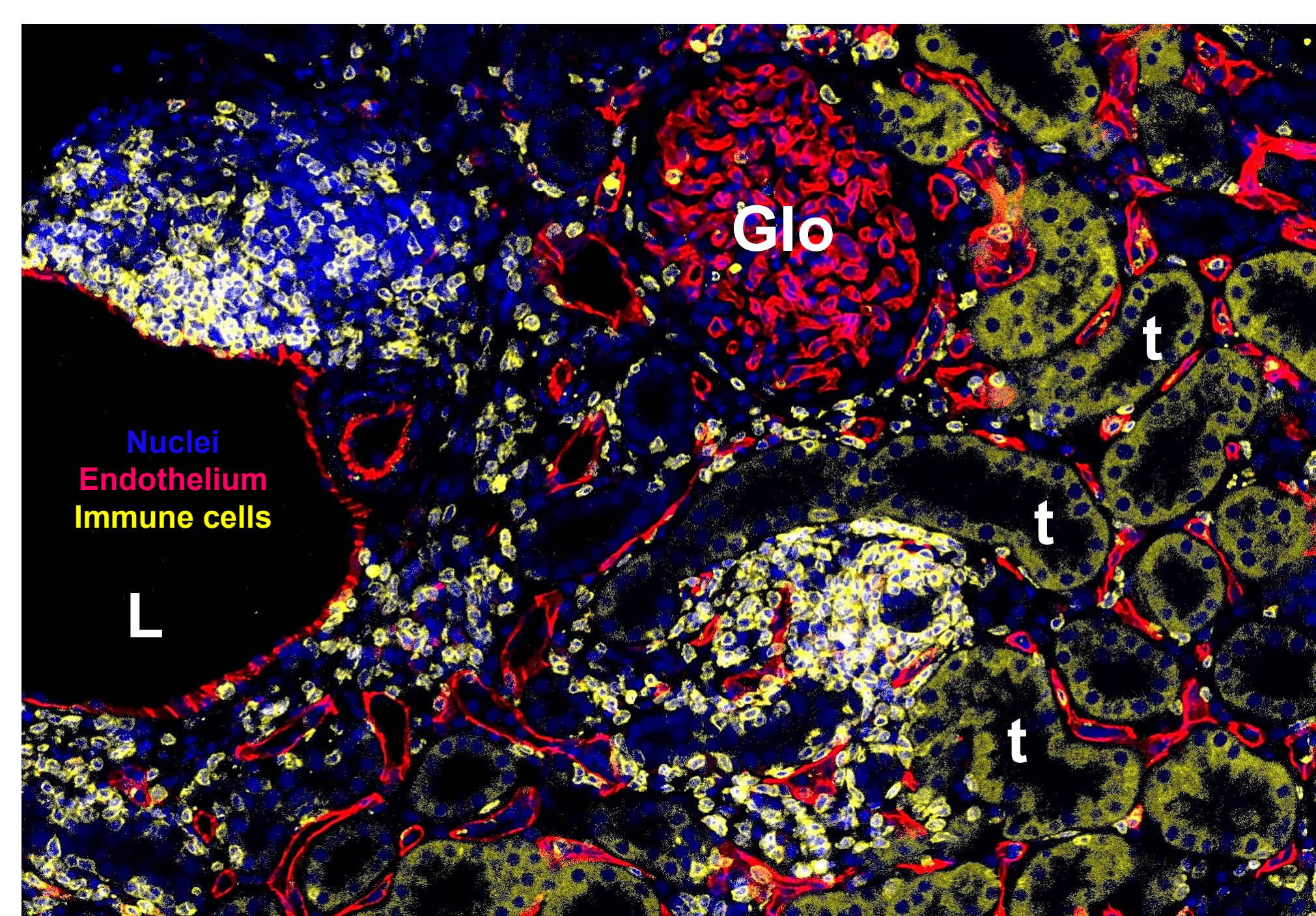


Image of a human renal biopsy.

Image by Michael Seifert MD, Miguel Melendez-Ferro PhD.
Glo: glomerulus; L: lumen; t: tubules

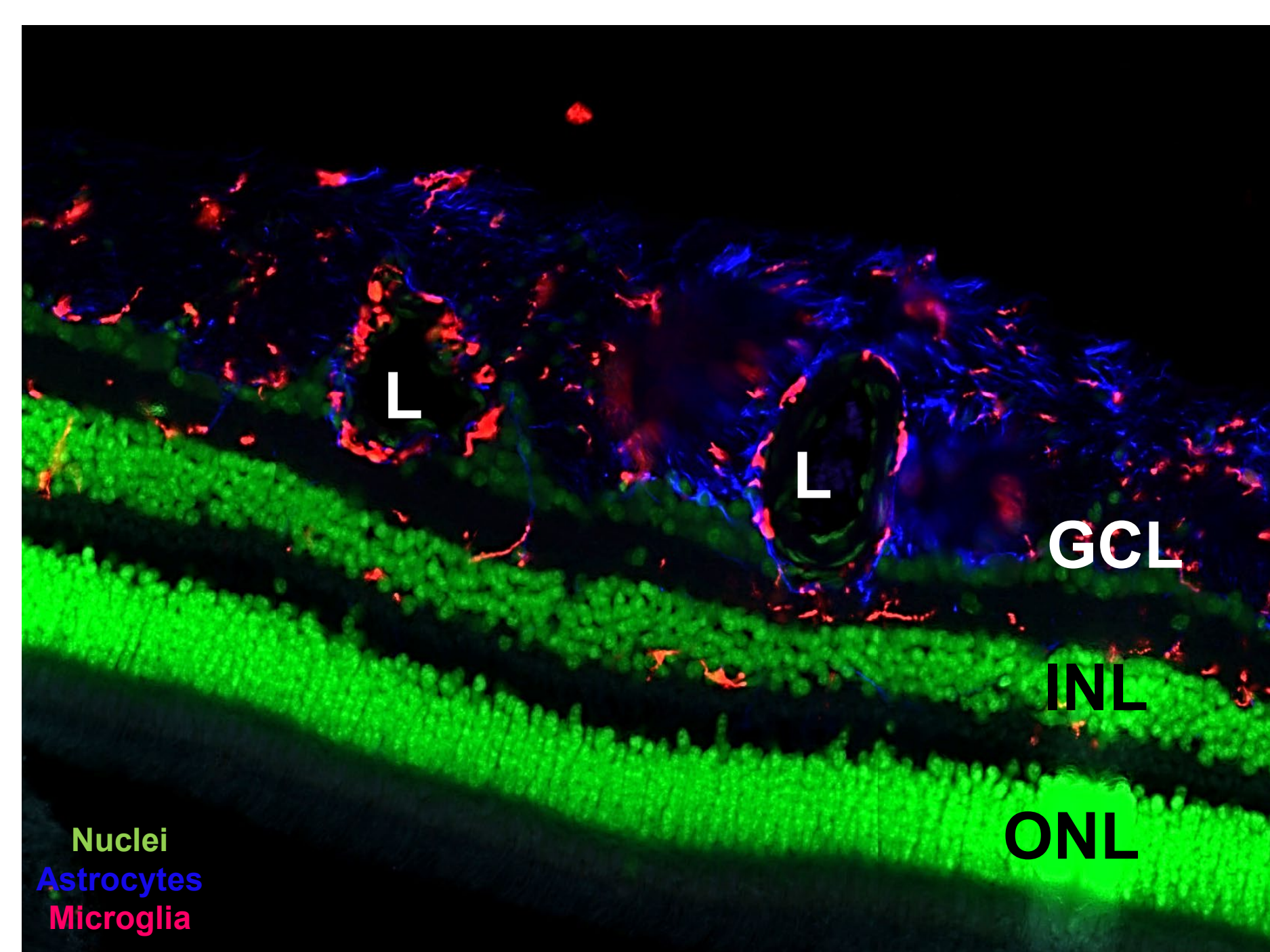
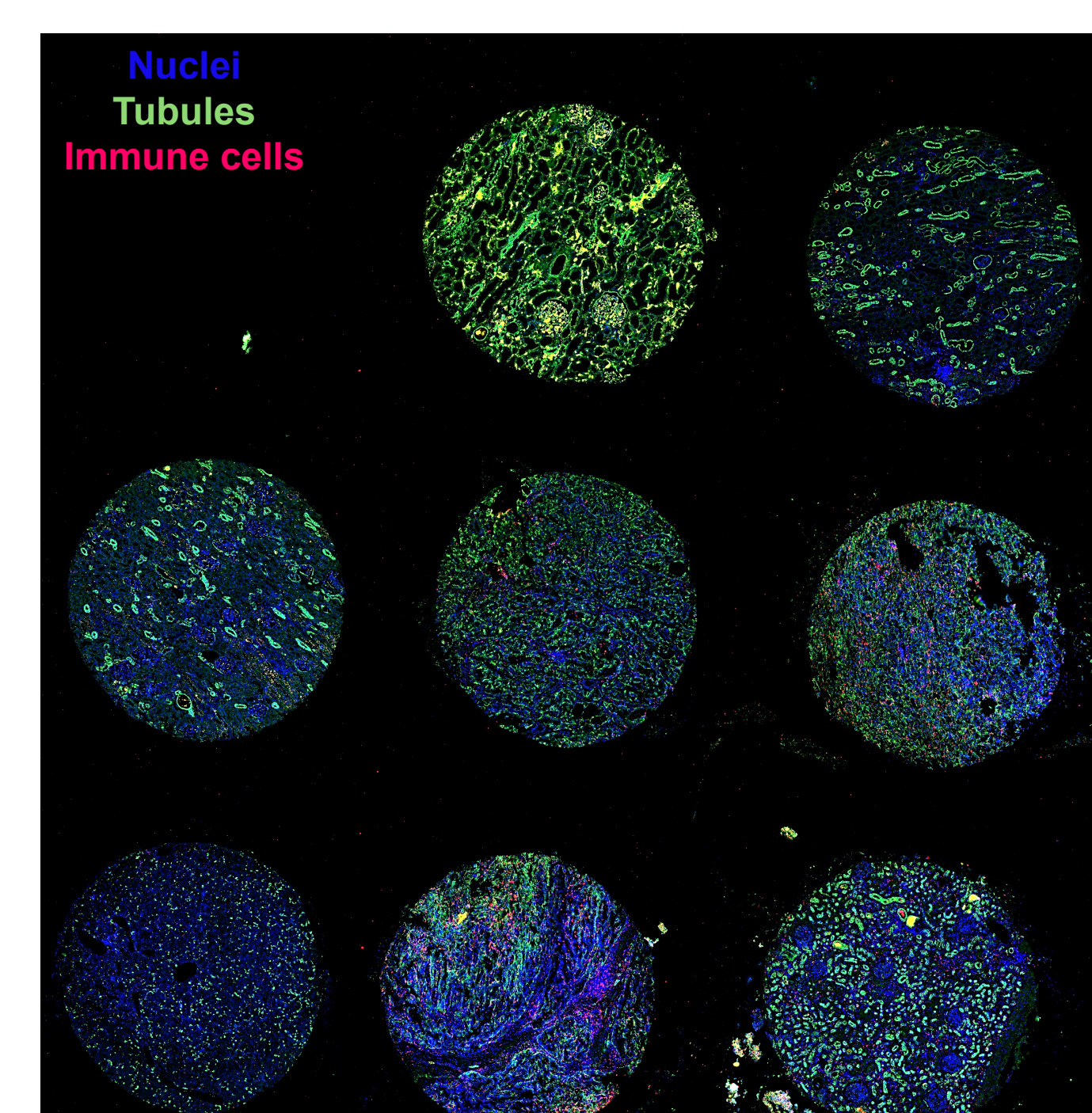


Image of the human retina.

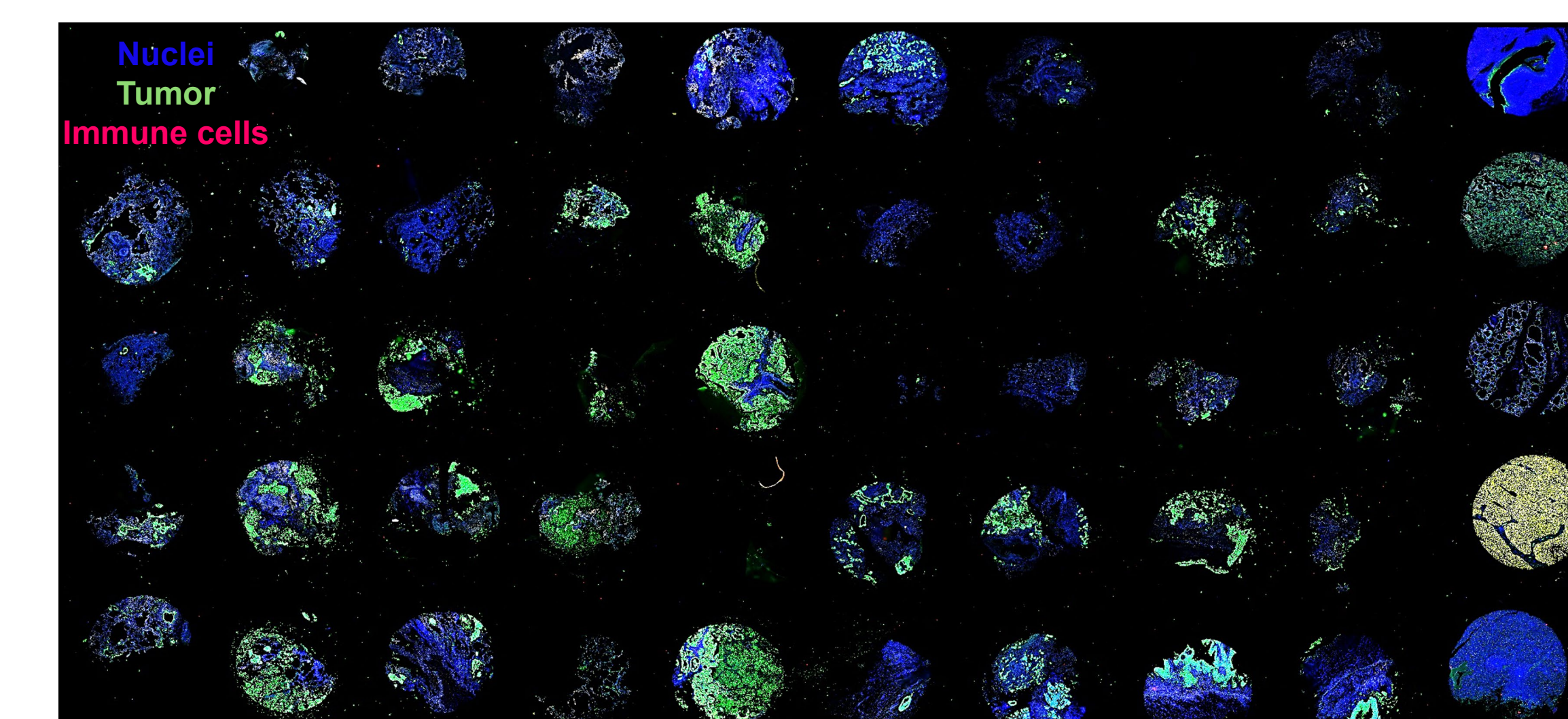
Image courtesy of Alecia Gross PhD, McKenna Somerville BS, Ryan Strickland BS.
GCL: ganglion cell layer; INL: inner nuclear layer; L: lumen; ONL: outer nuclear layer



Tissue micro arrays showing different stages of human renal cancer.

Image courtesy of Lyse Norian PhD, Francesca Dempsey BS

Examples of projects done in the Core



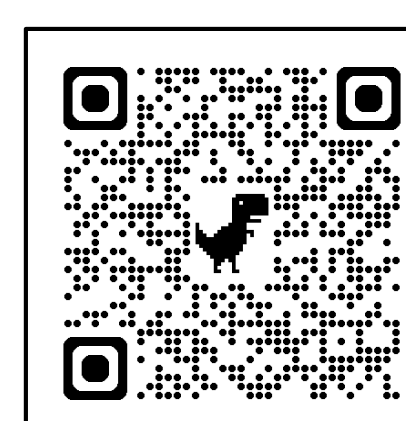
Tissue micro arrays showing different stages of human lung cancer.

Image courtesy of Jessy Deshane PhD, Kayla Goliwas PhD

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Scan QR code for more information



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