Whole-Slide Image Analysis Applications for Neuroscience

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Topics

- Indica Labs & Aperio Partnership
- Algorithm Integration
- Stain Separation
- Axon Quantification
- Microglial Activation Quantification
- Micro-hemorrhage Event detection
- Amyloid Plaque Counting – brightfield
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- Product Demonstration
- Questions & Discussion

Indica Labs & Aperio Partnership

Indica develops specialized image analysis software for leading digital pathology platforms, including Aperio's ScanScope platform.

Our application specific tools provide a unique complement to these general purpose whole slide imaging systems.

In March, 2012 Aperio became a distributor of Indica's Image Analysis software.

Indica customers include leading pharmaceutical companies, biotechs, CROs, and academic and government research centers.

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Algorithm Integration

- Integrates seamlessly into Aperio's ImageScope and Spectrum

- Compatible with GENIE

- Compatible with TMALab

- User never leaves the Aperio environment. Generated data and images remain part of the Aperio environment.

- Compatible with a variety of other file formats including Mirax, Hamamatsu, Bioimagene, TIFF, JPG photomicrographs.

indica labs informed pathology
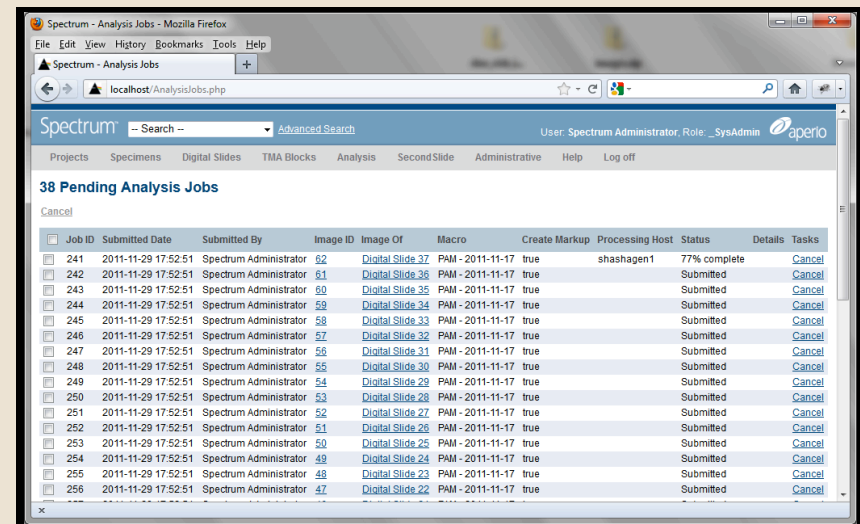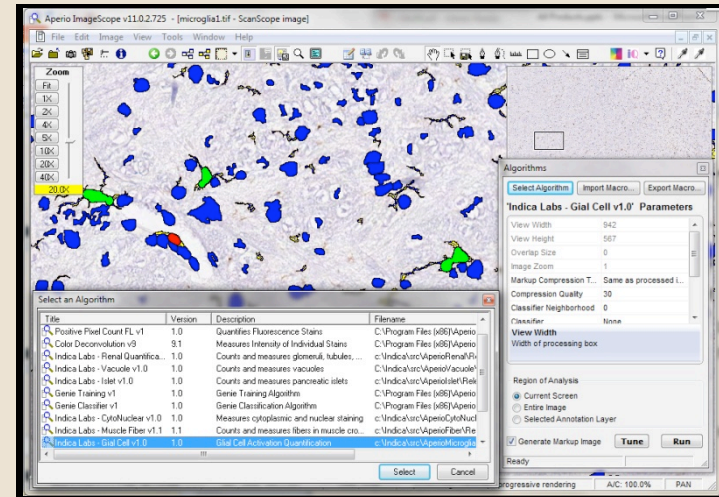
http://indicalab.com

Stain Separation

Separate nuclear stain from positive stain
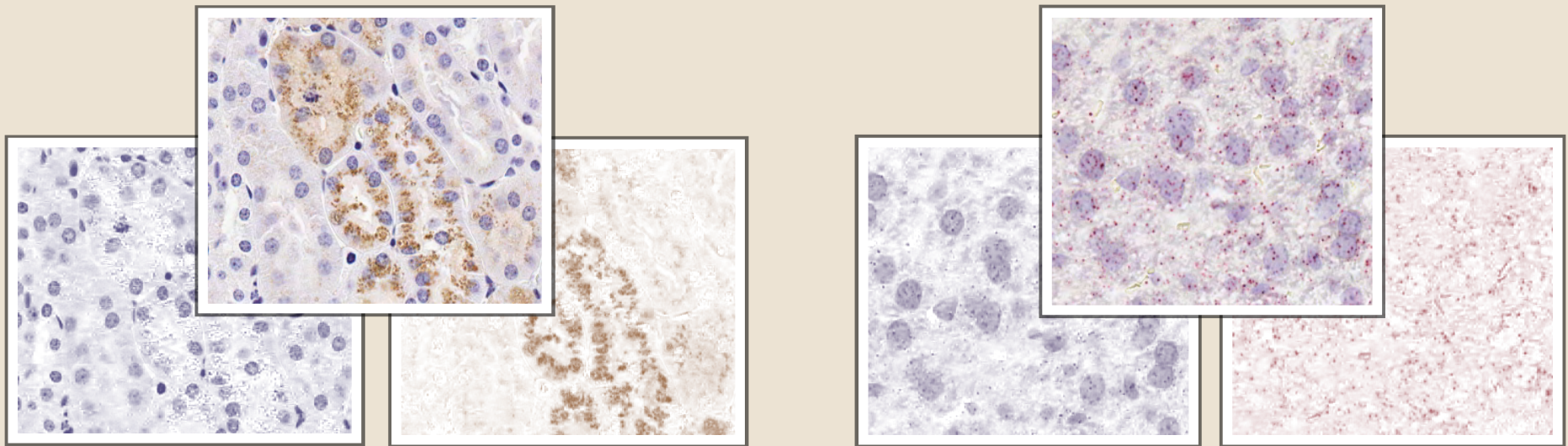
TIP: Use ImageScope eyedropper plugin to simplify stain selection. FREE download from indicalab.com.

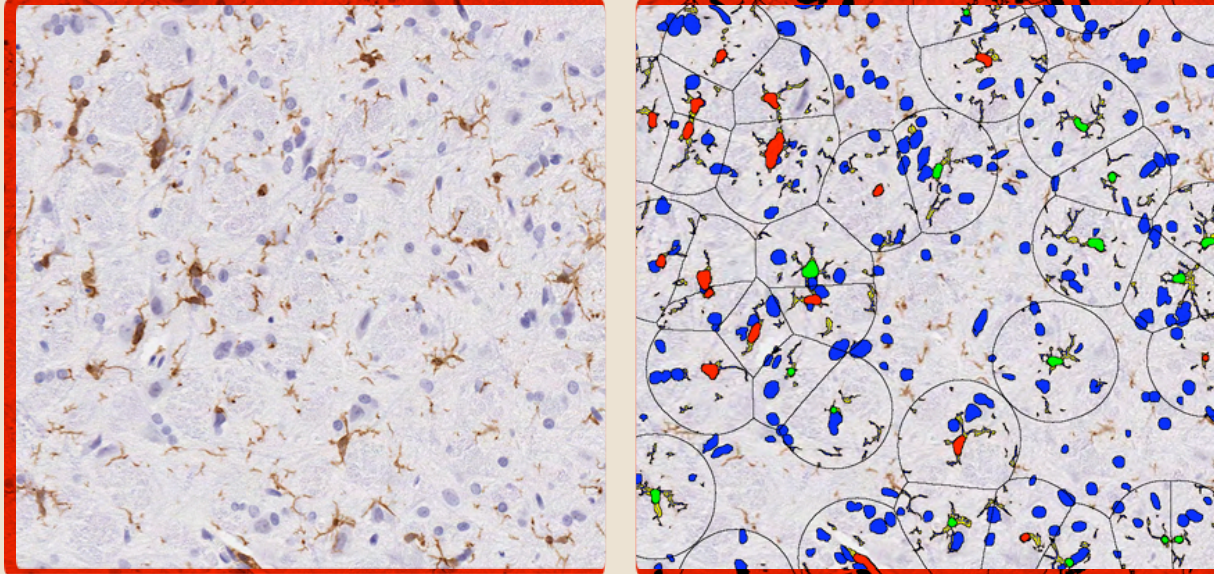indica labs   informed pathology
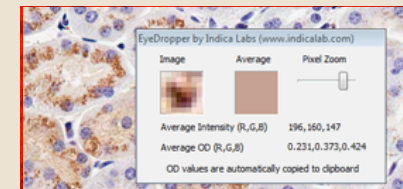
Axon Quantification

This tool reports:
- Total Axon Count
- Total Axon Area
- Total Myelin Area
- Average Myelin Thickness
- Average Axon inner & outer diameters
- **Average Axon G-Ratio**
- Axon G-Ratio Histogram
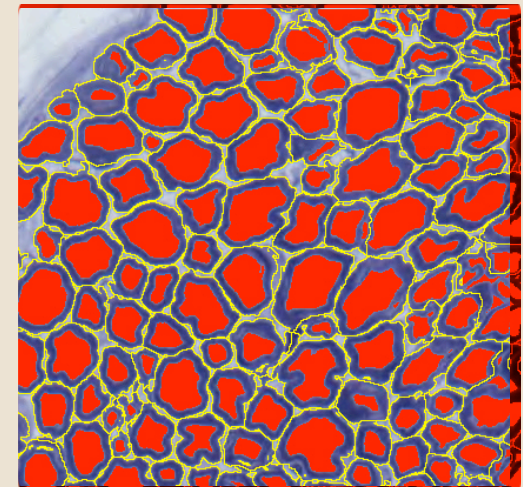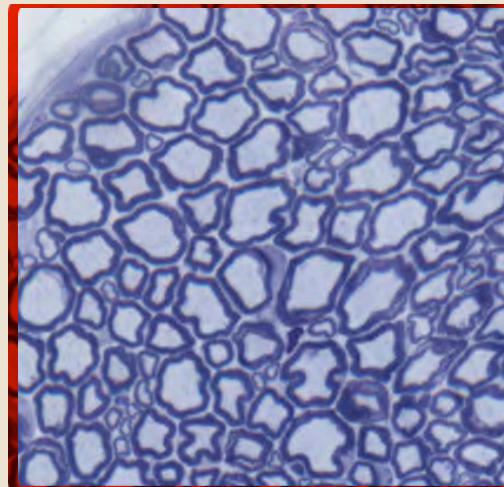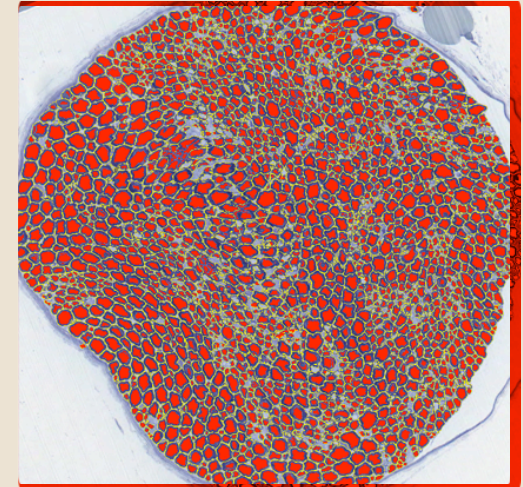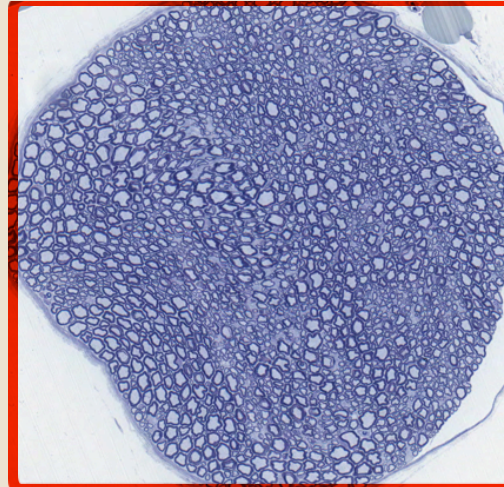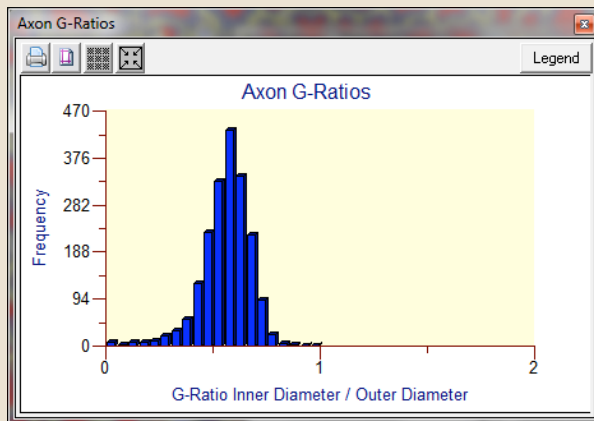
Sciatic nerve stained with toluidine blue

Microglial Activation Quantification

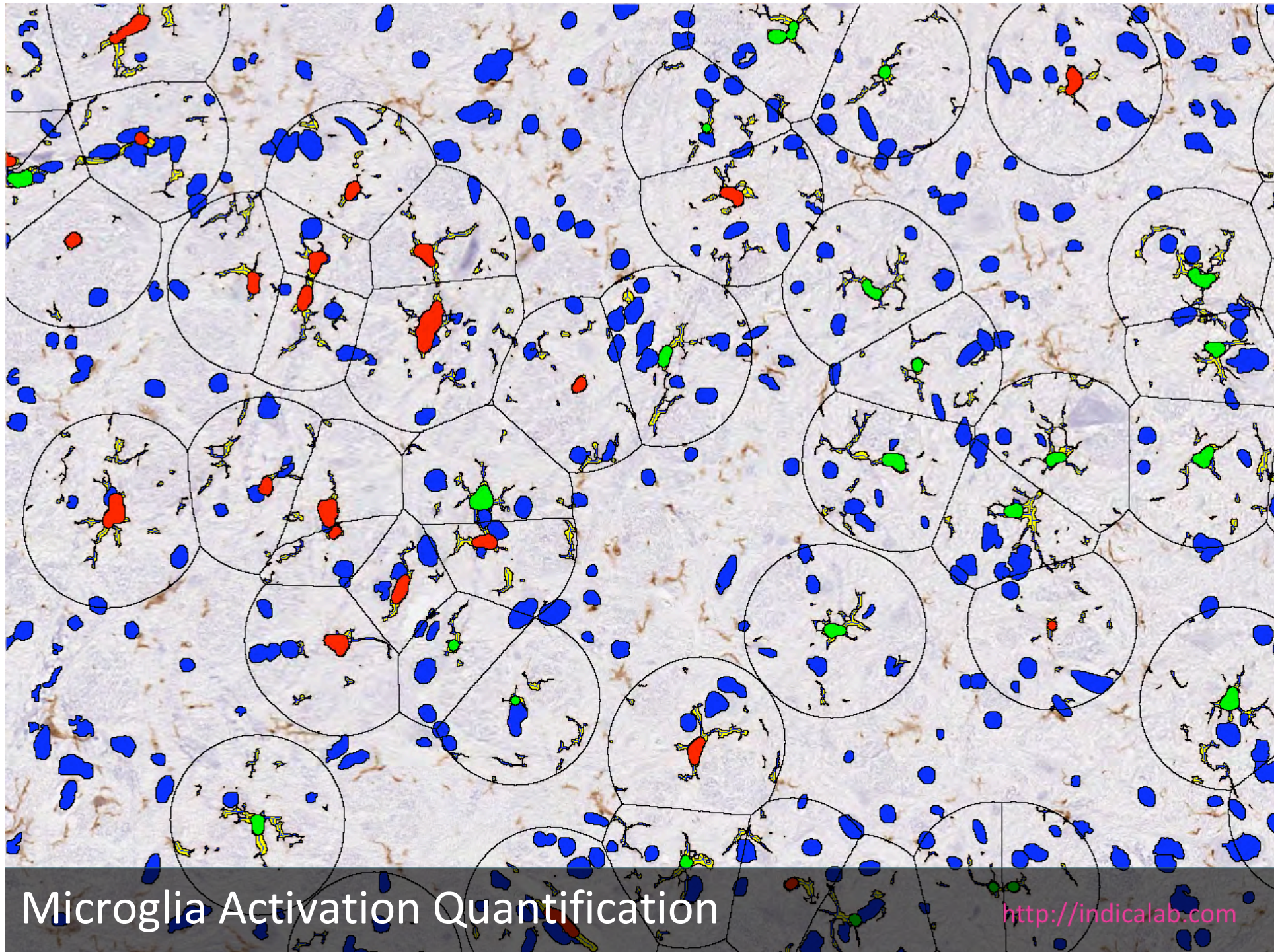Measures microglial activation levels by reporting:
- Total non-glial cells
- Total glial cells (activated or resting)
- Total process length
- Total process area
- Average process thickness
- Average process length per cell
- Average process area per cell
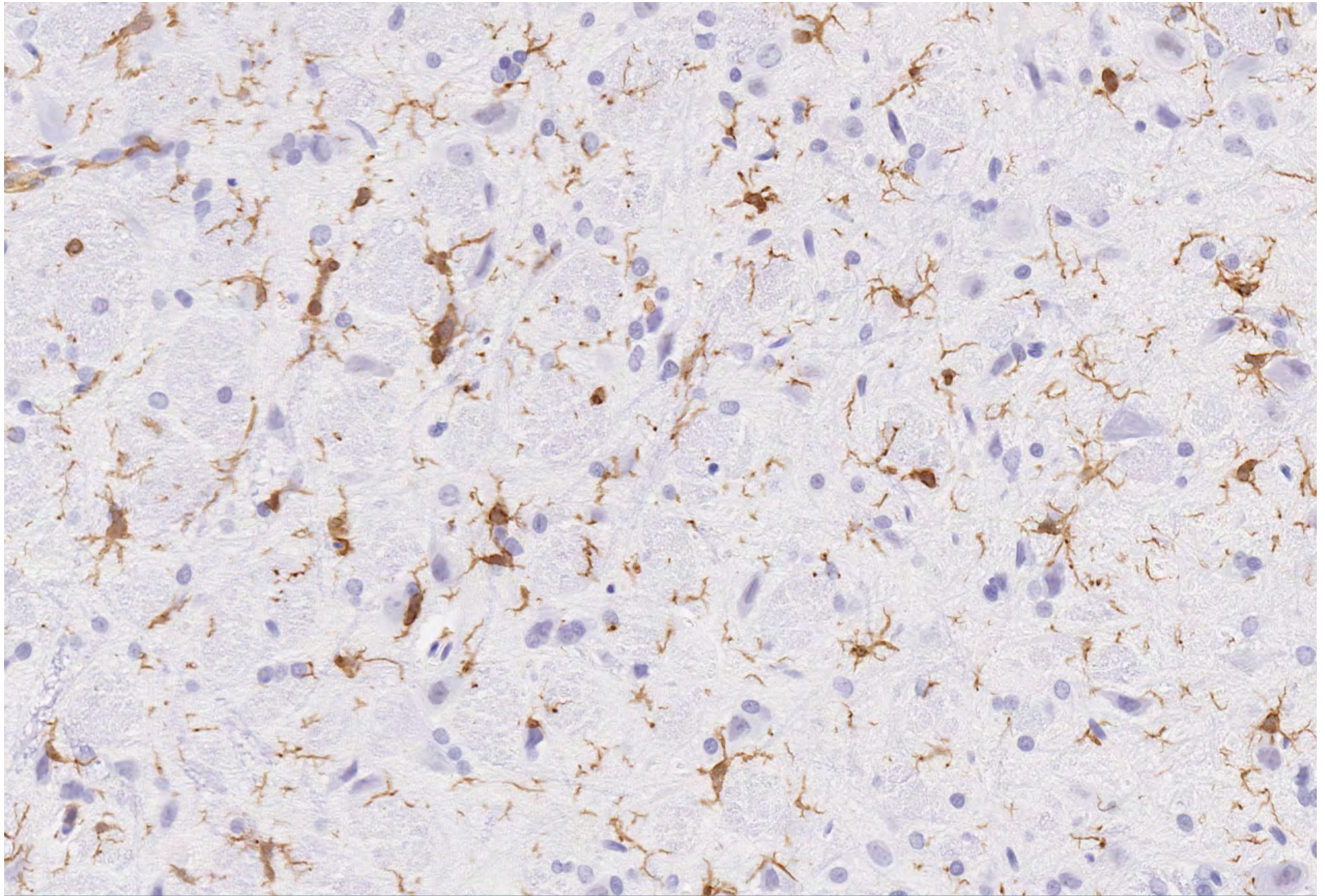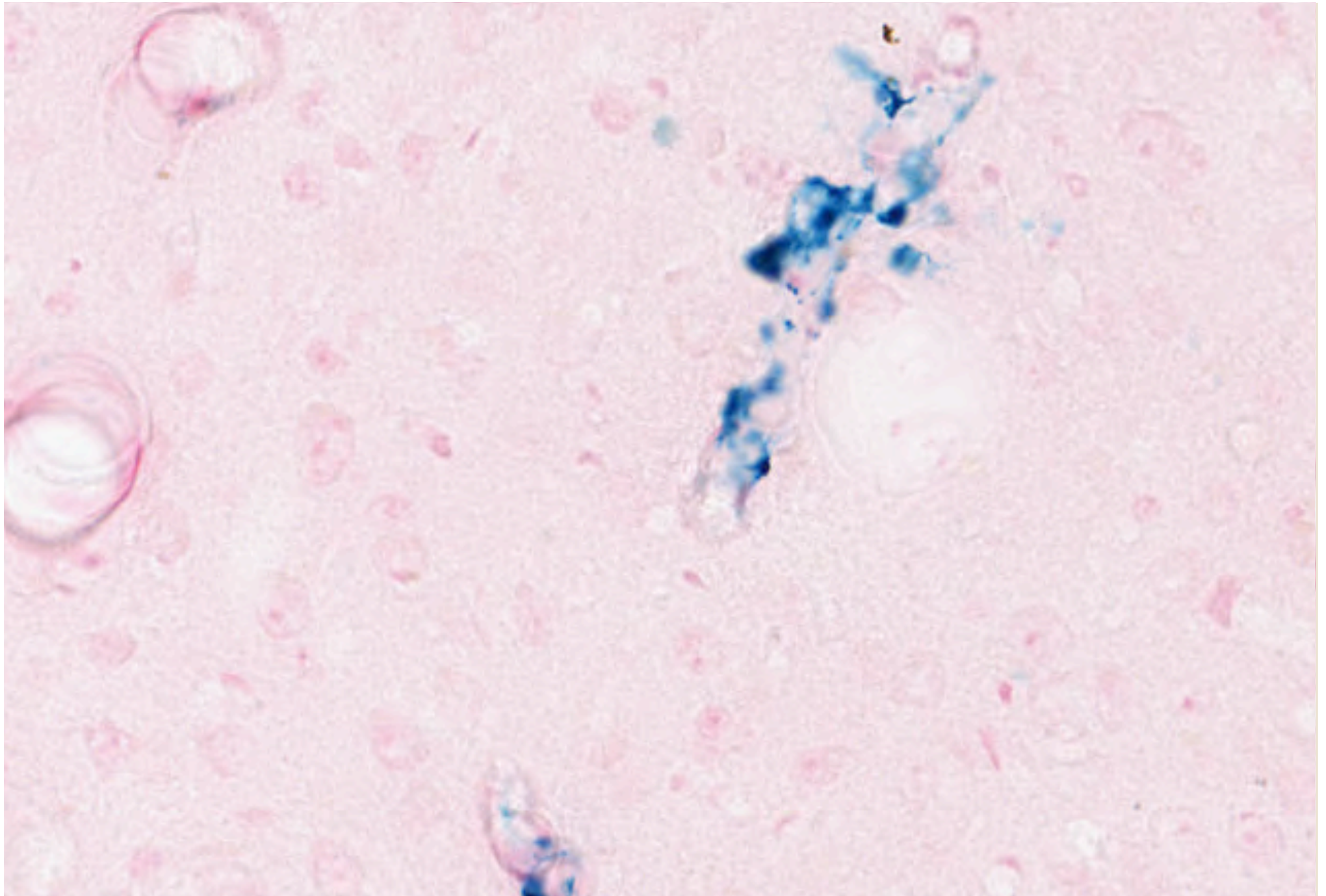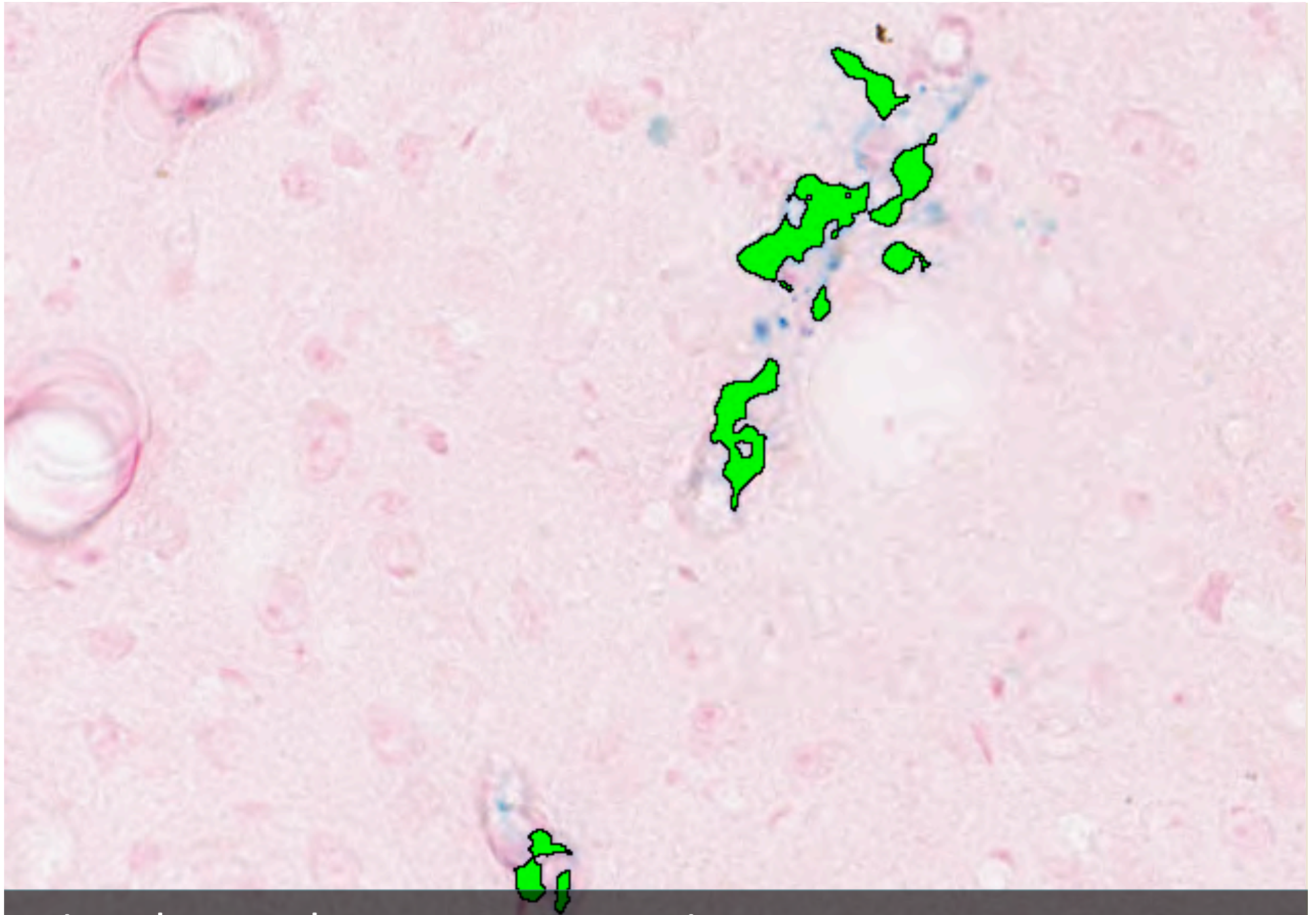
Microglia Activation Quantification

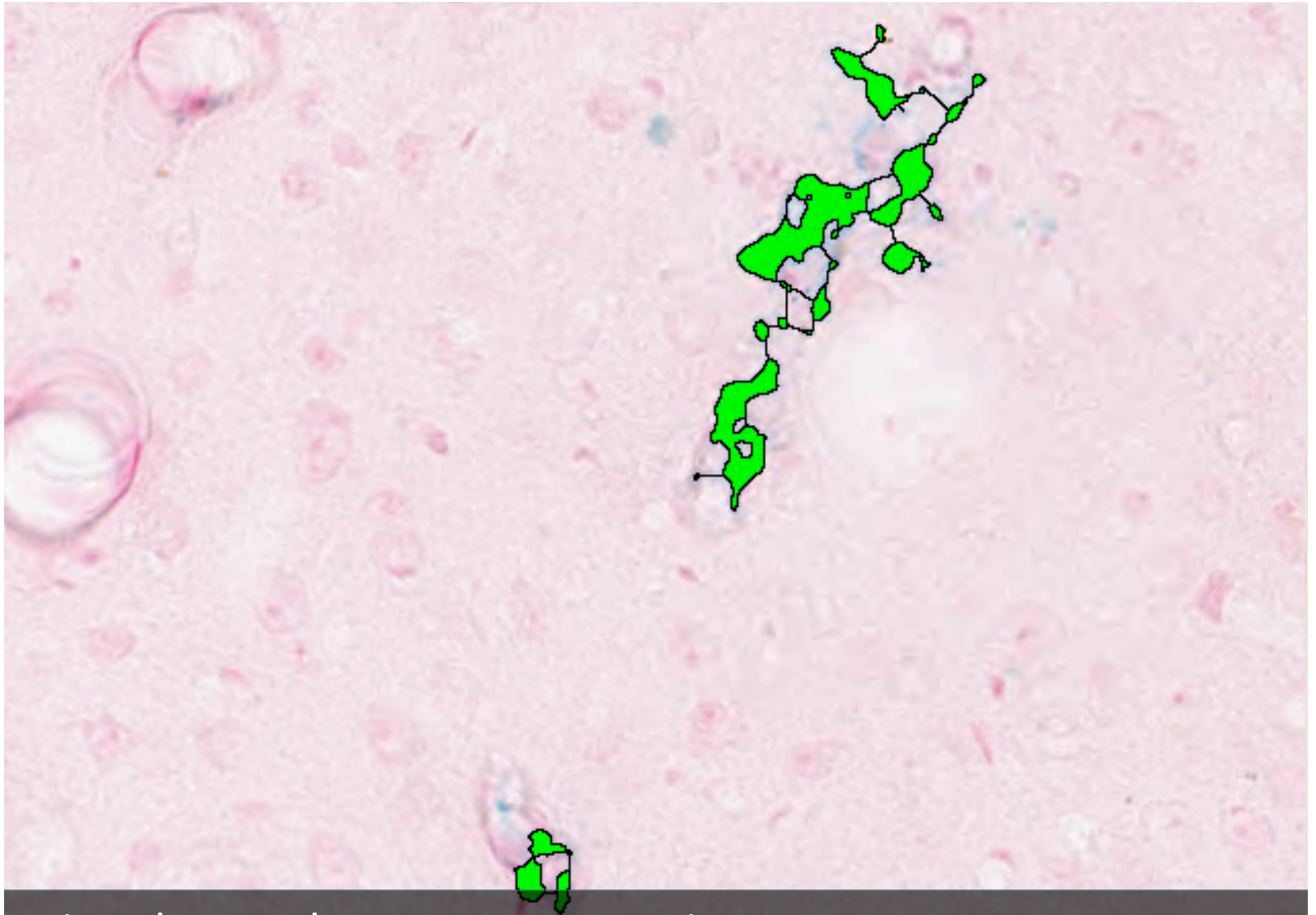Microglia Activation Quantification

http://indicalab.com
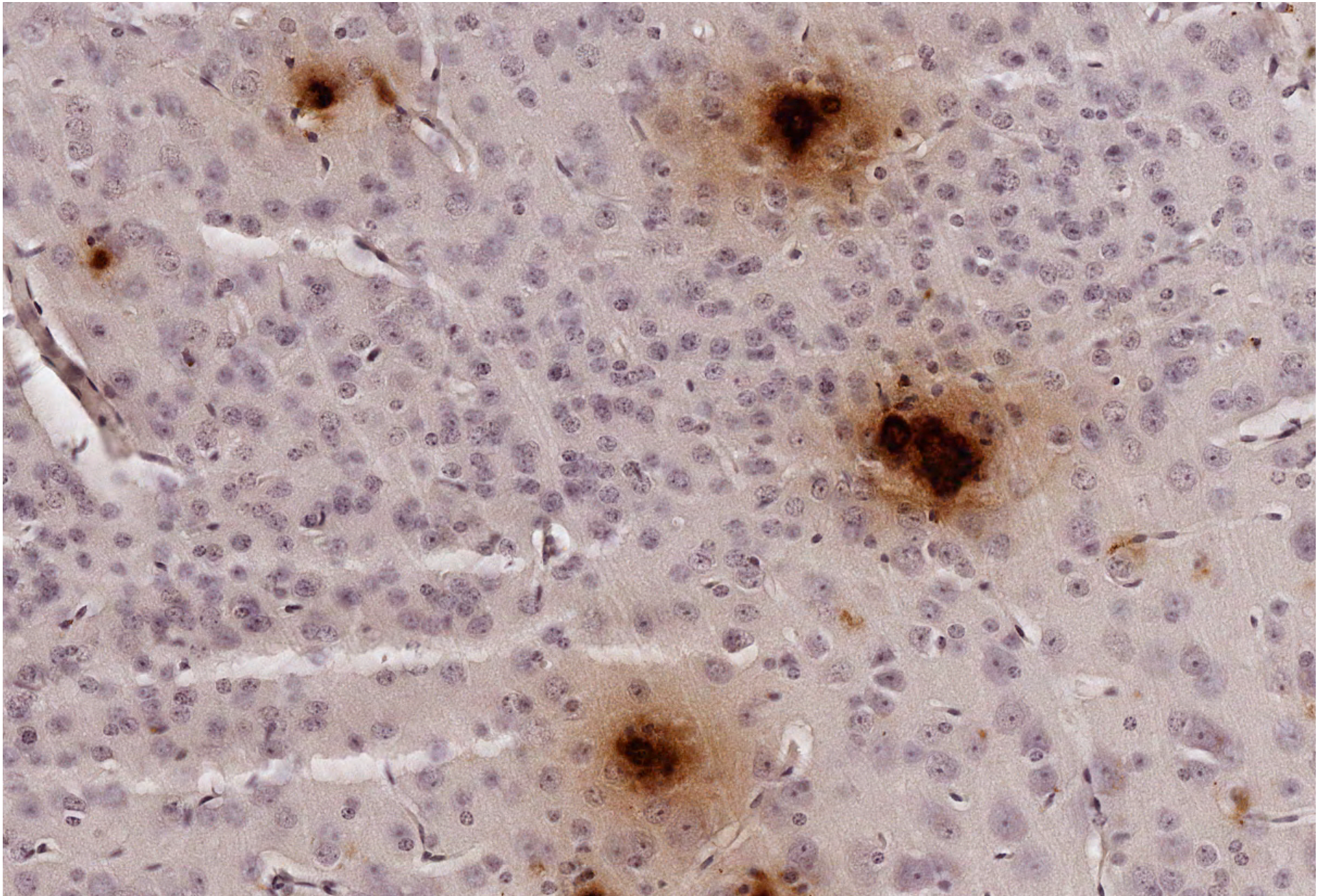
Micro-hemorrhage Event Detection
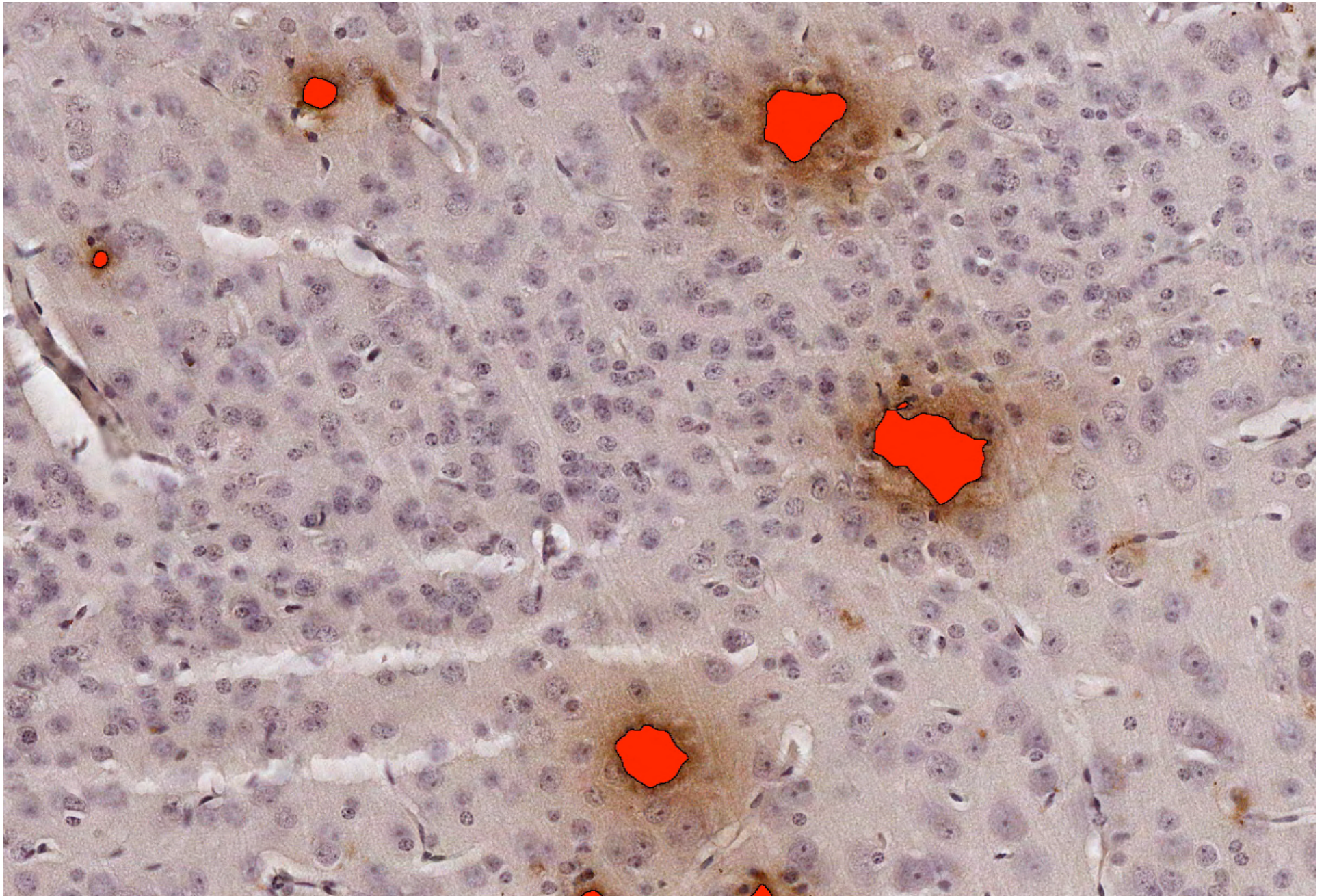
Micro-hemorrhage Event Detection

Micro-hemorrhage Event Detection

Amyloid Plaque Counting - Brightfield

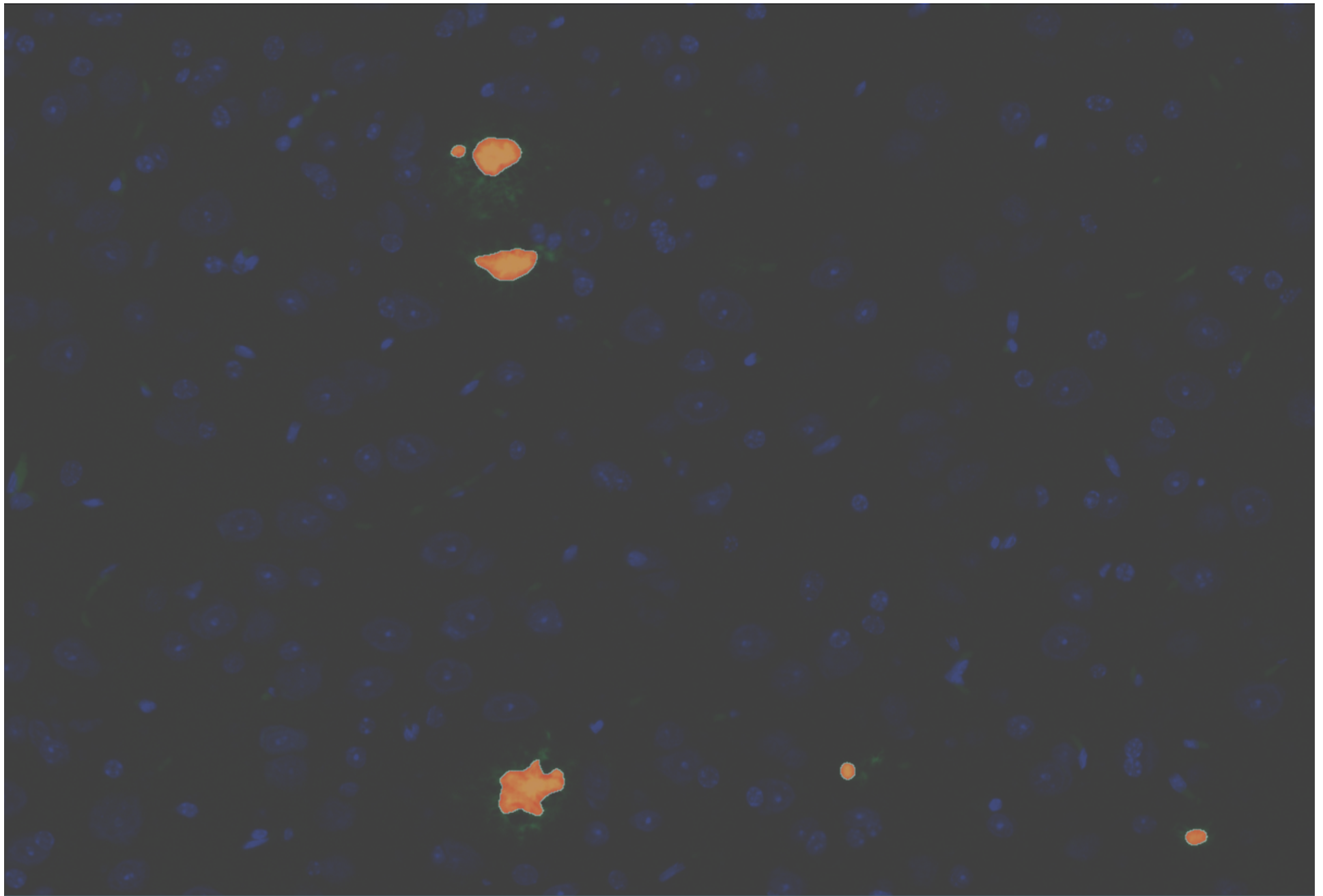Amyloid Plaque Counting - Brightfield

Amyloid Plaque Counting - Fluorescence

Amyloid Plaque Counting - Fluorescence

Live Demonstration

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Thank You

Questions and Comments?