

“We have all the microscopes”

FOMD CELL IMAGING CORE

HILMAR STRICKFADEN
4.6.2026



Outline



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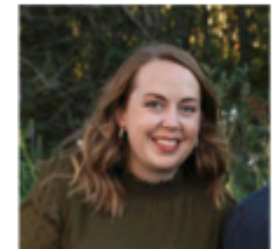
- Who we are
- What do we have to offer
 - Training
 - Expertise
 - Courses
 - Microscope Demos
- What equipment do we have?
 - Hardware
 - Software

The FoMD CIC team

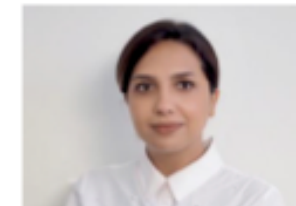


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Dr. Andrew Simmonds (**Chair Department of Cell Biology**)
Colleen Sunderland, M.Sc. (**Manager FoMD Core Facilities**)



Dr. Hilmar Strickfaden (**Cell Imaging Core Director**)
Kiera Howie B.Sc. (**Cell Imaging Core Technologist**)
Dr. Sara Amidian (**Electron Microscopy Technologist**)
Shiau-Yin Wu M.Sc. (**Electron Microscopy Technologist**)



Core Imaging Committee

- Dr. Gordon Chan, Dr. Maria Ionnou, Dr. David Marchant, Dr. Jen Hocking, Dr. Nicolas Touret.
- Dr. Xuejun Sun, Dr. Joanne Lemieux.

What we offer



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- Instrument
 - Access
 - Training
 - Maintenance
- Microscopy Supplies
- Services:
 - assistance with imaging experiments, EM preparation, assisted use on the microscopes
 - Consulting - Major equipment purchases, experimental design - especially those using our instruments
 - Expertise letters - We can provide letters indicating support/ infrastructure/expertise available from the CIC for your CIHR etc. grant applications.
- Open from Mon-Fri 9-5

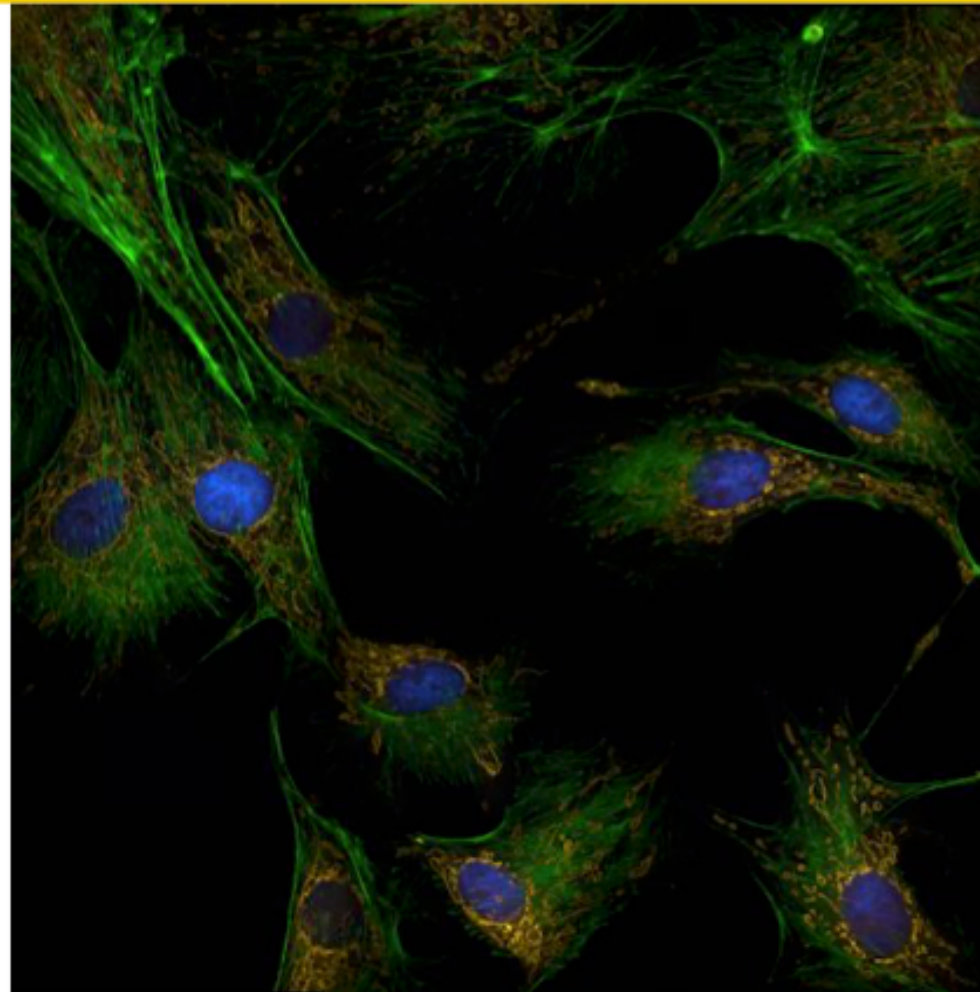
Technology Seminars and Courses !!!



Fluorescence Microscopy



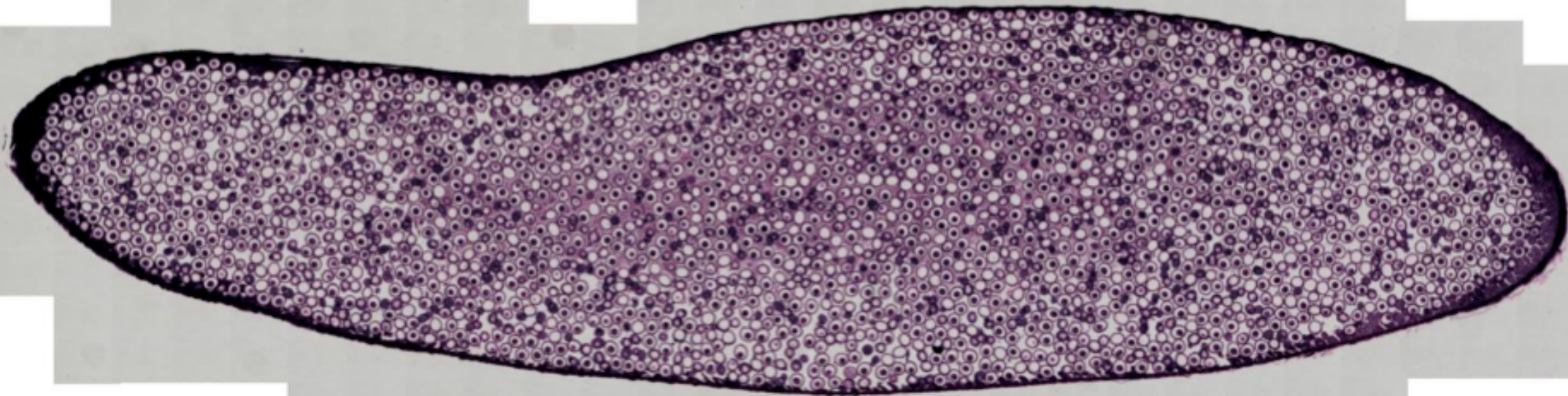
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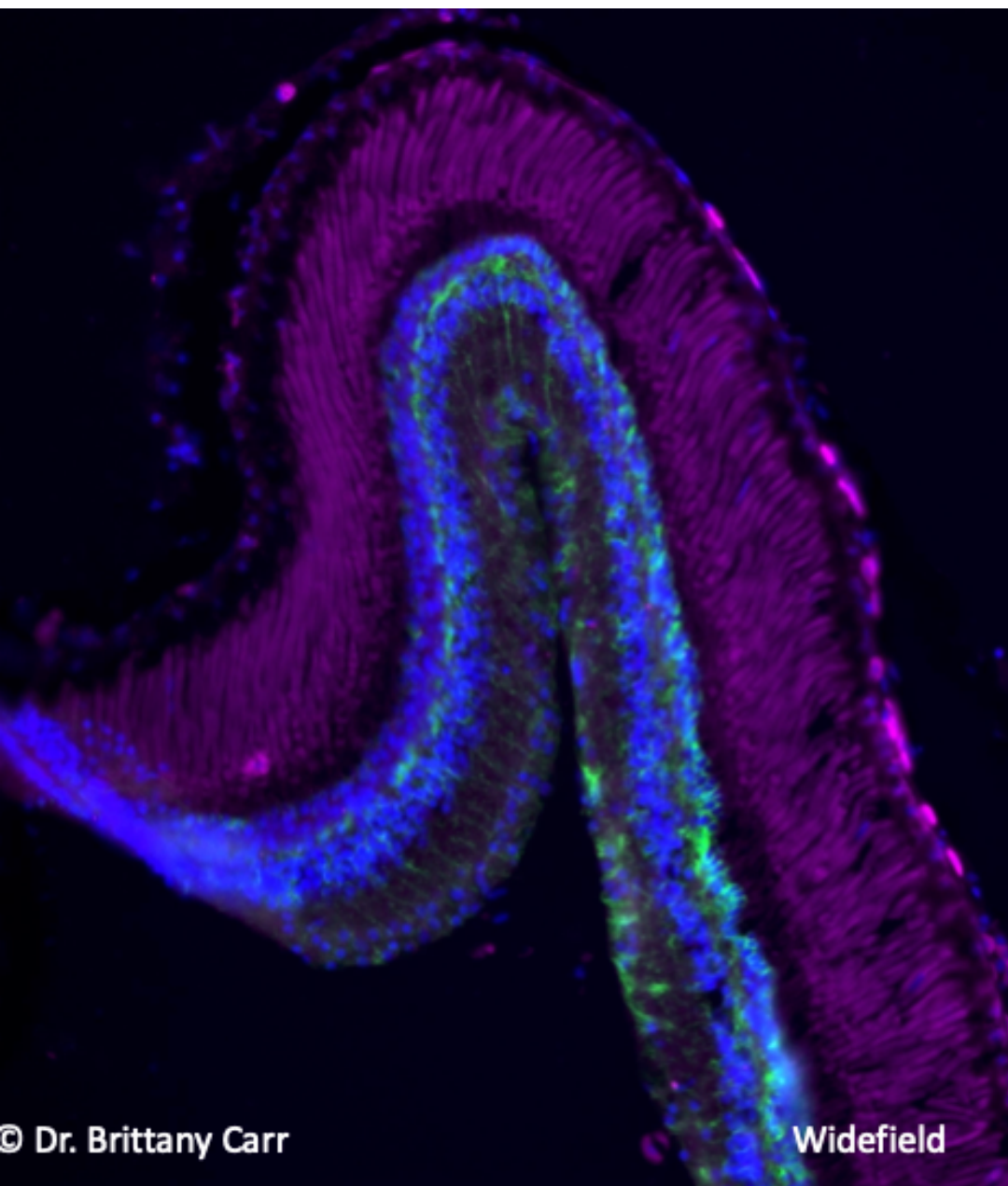


Fluorescence/Brightfield Microscopy on whole slides:



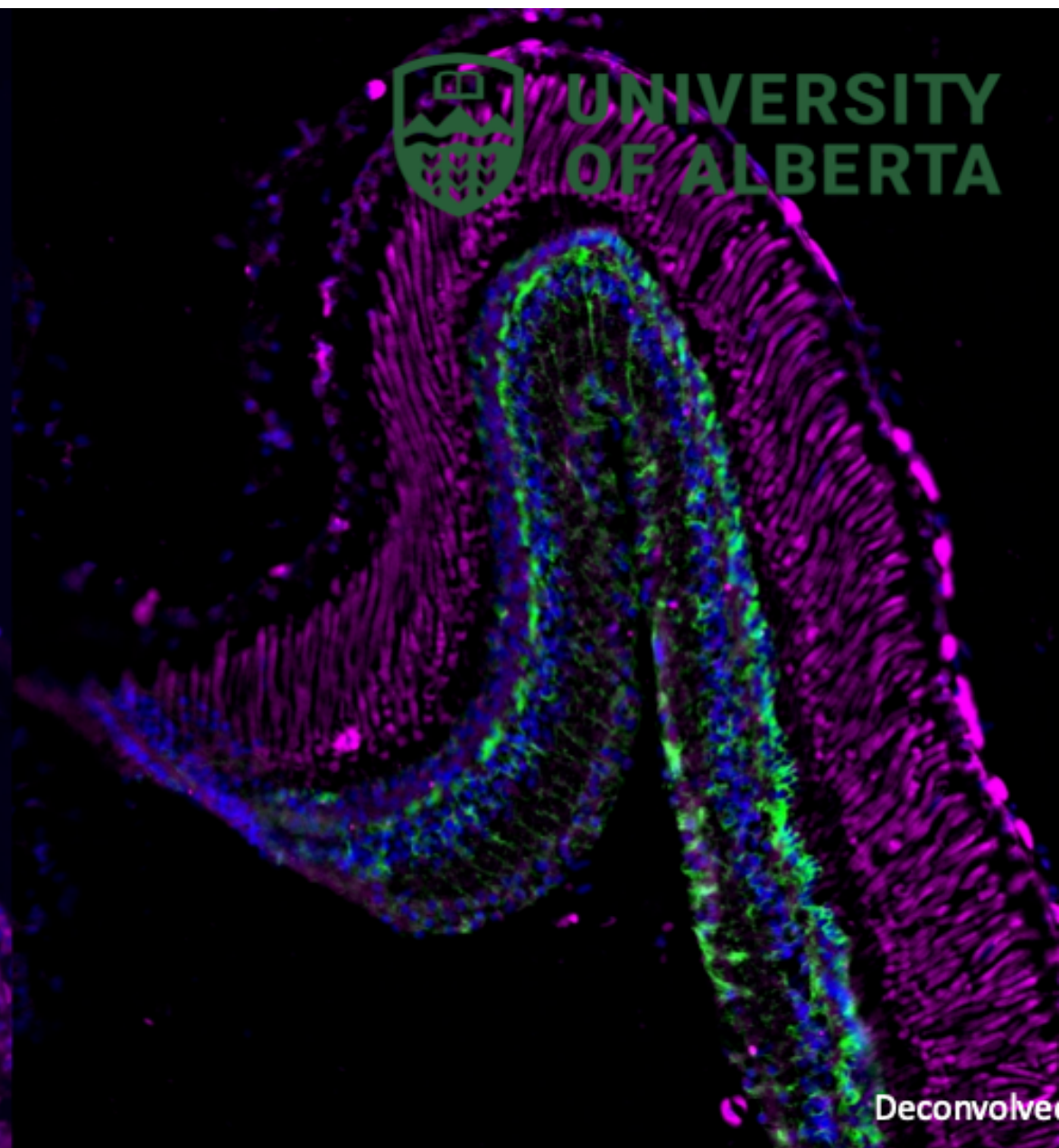
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© Dr. Brittany Carr

Widefield



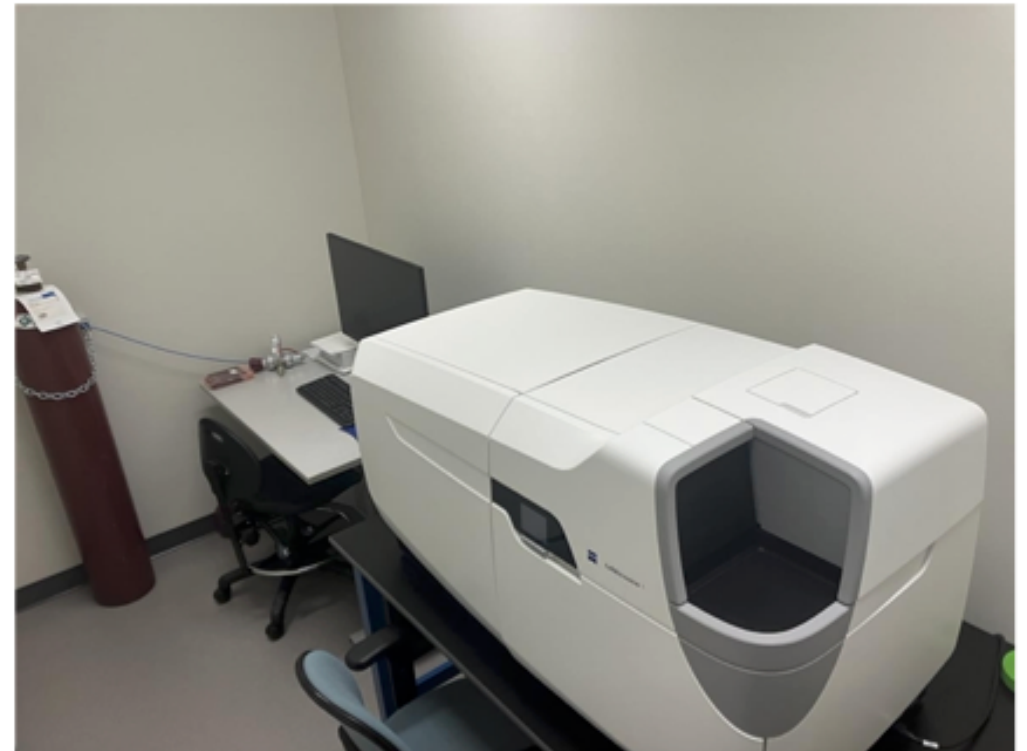
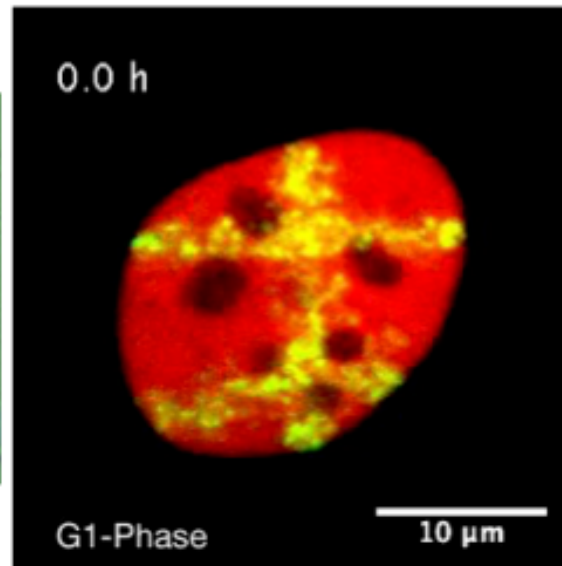
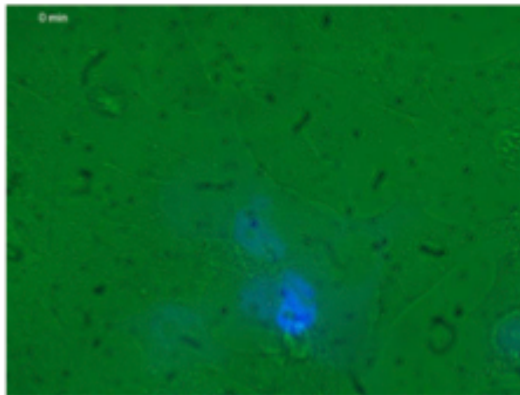
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Deconvolved

Live-Cell Microscopy



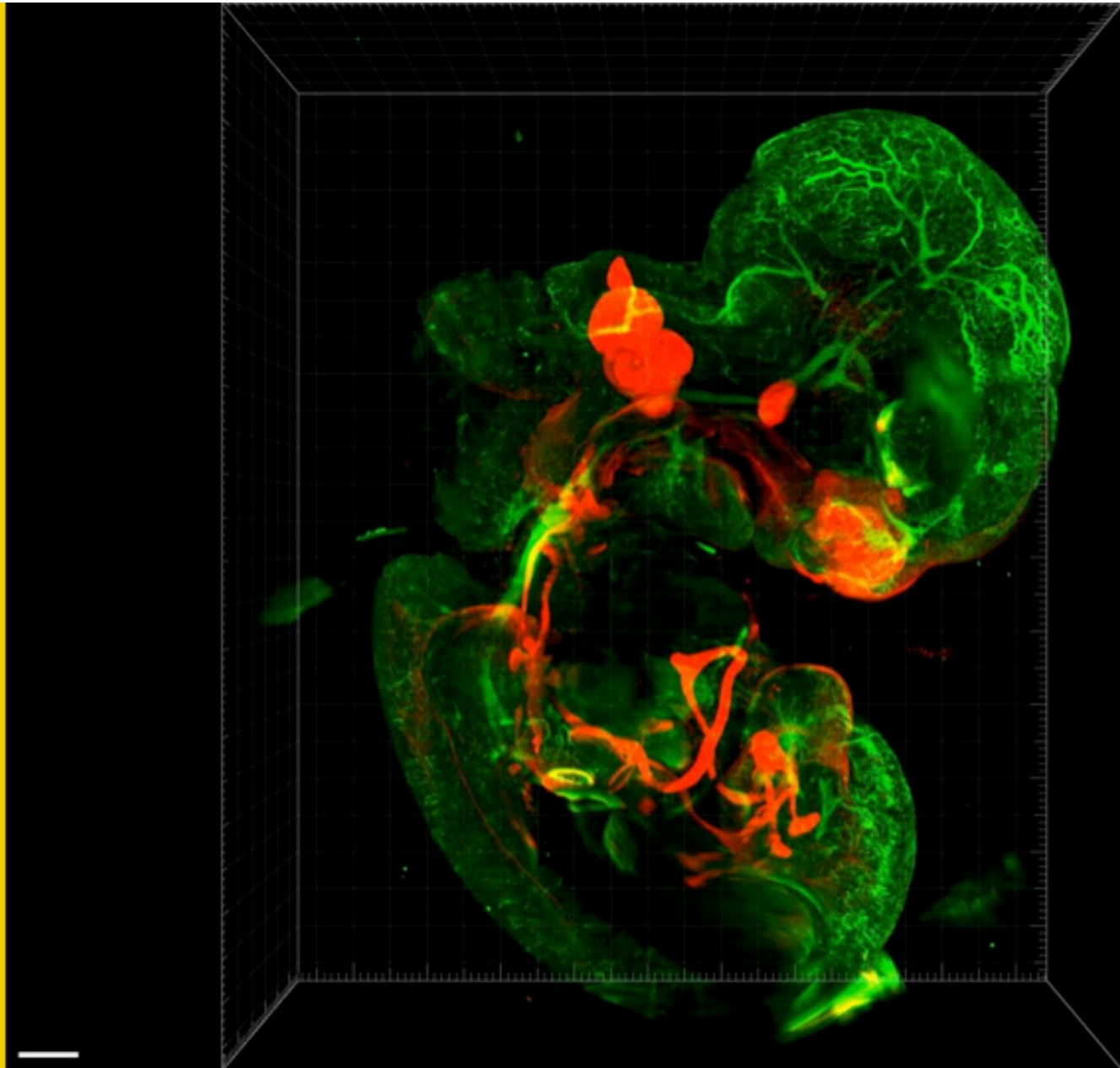
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LIGHT SHEET MICROSCOPE I



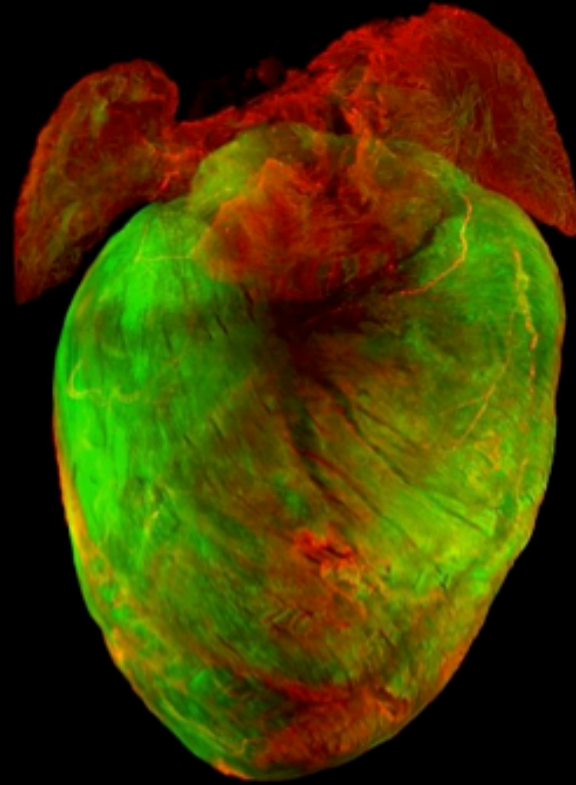
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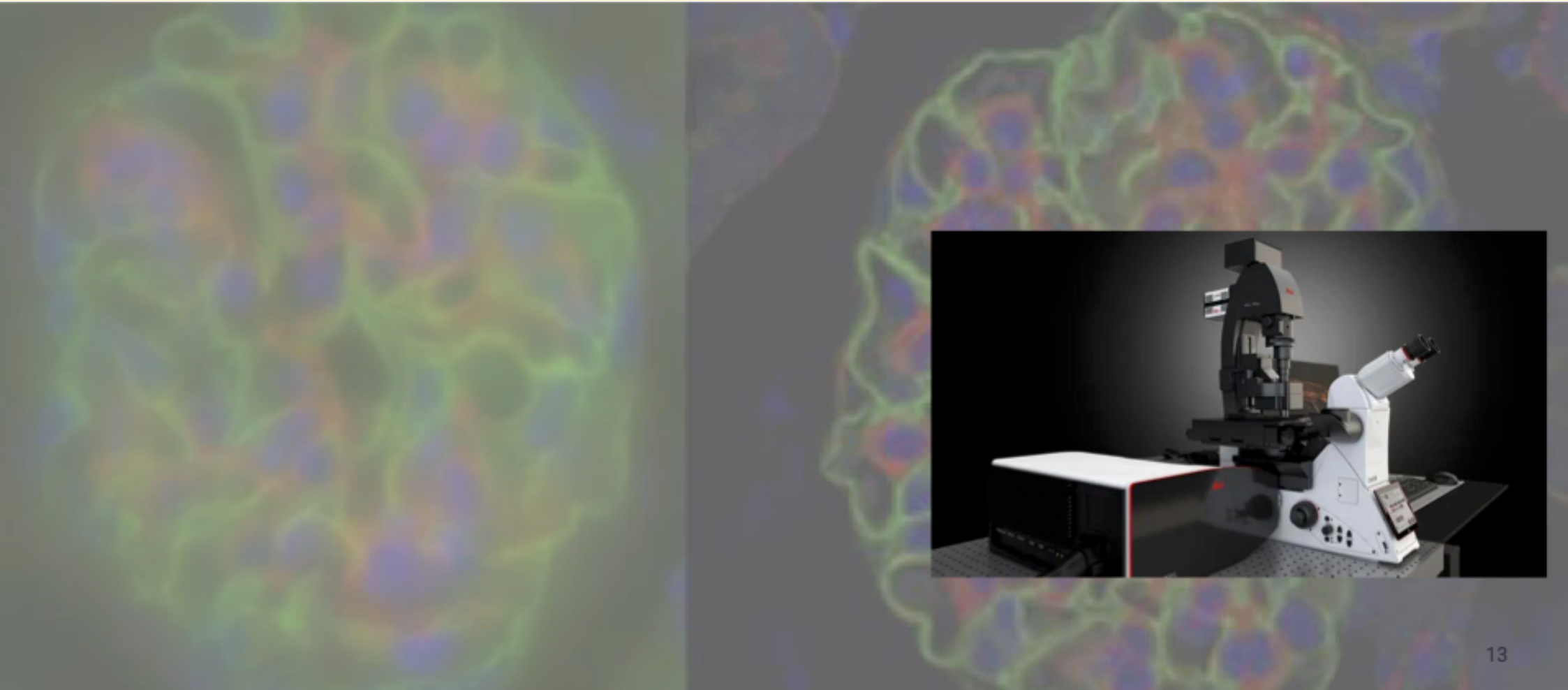
LIGHT SHEET MICROSCOPE II

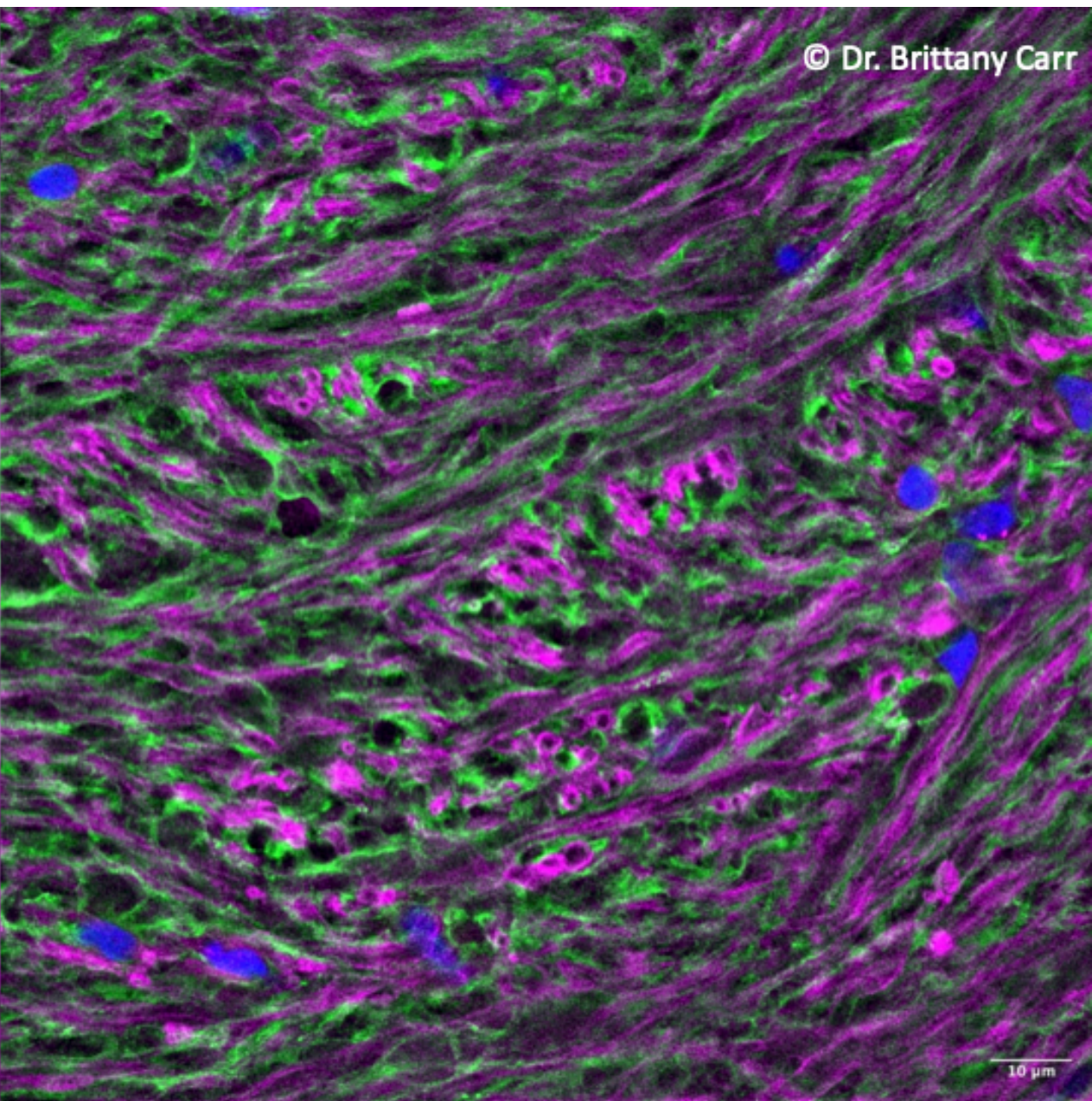
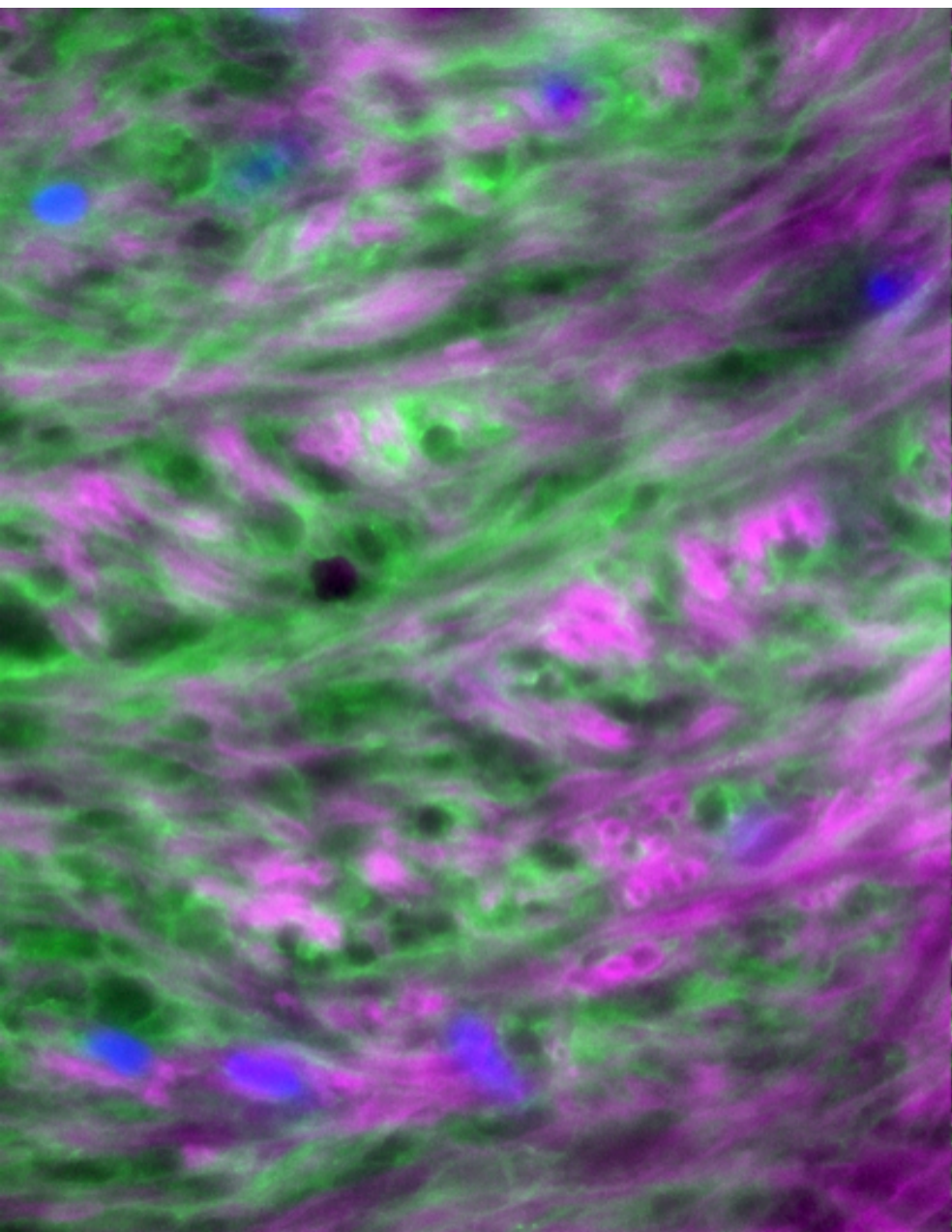


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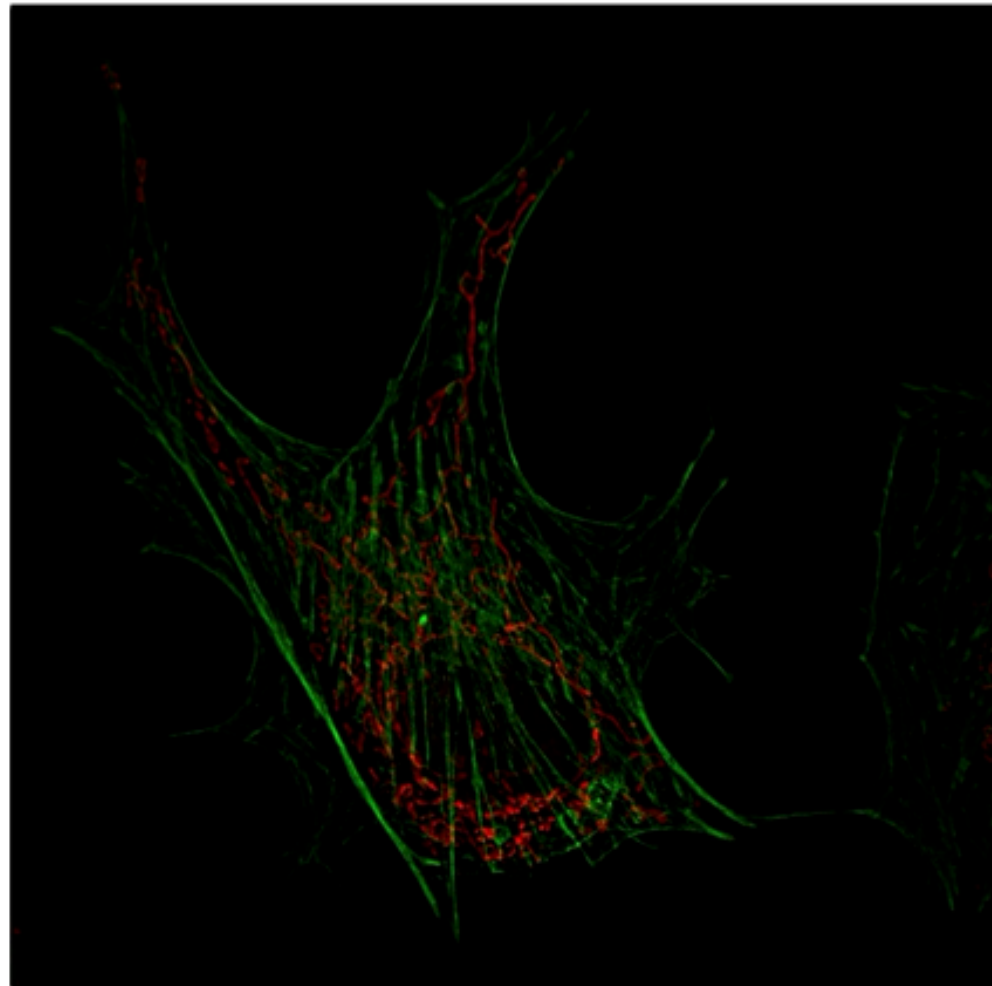


Confocal Microscopy

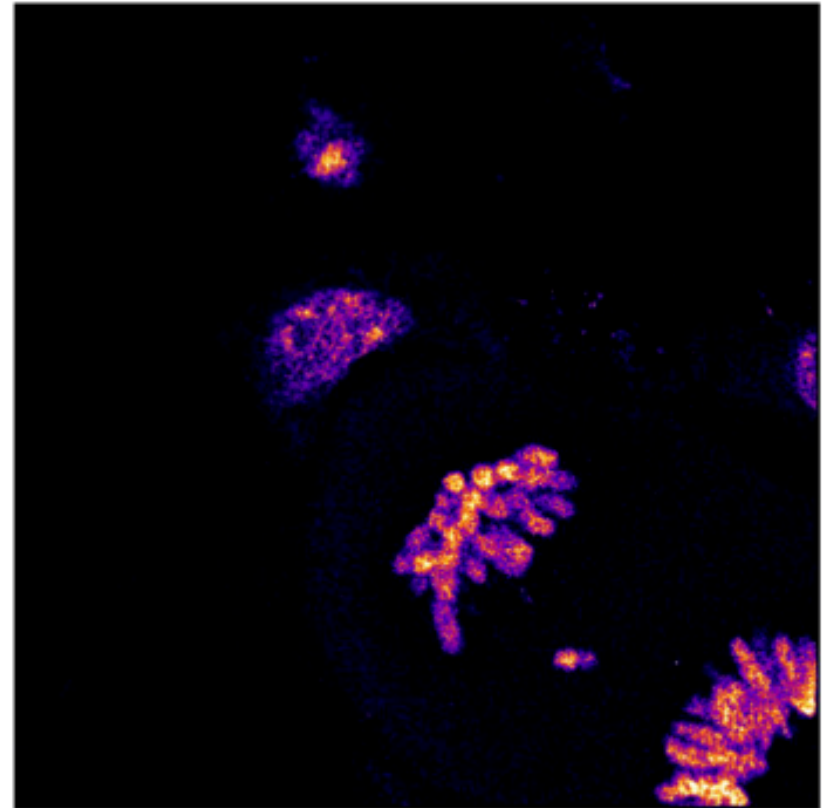
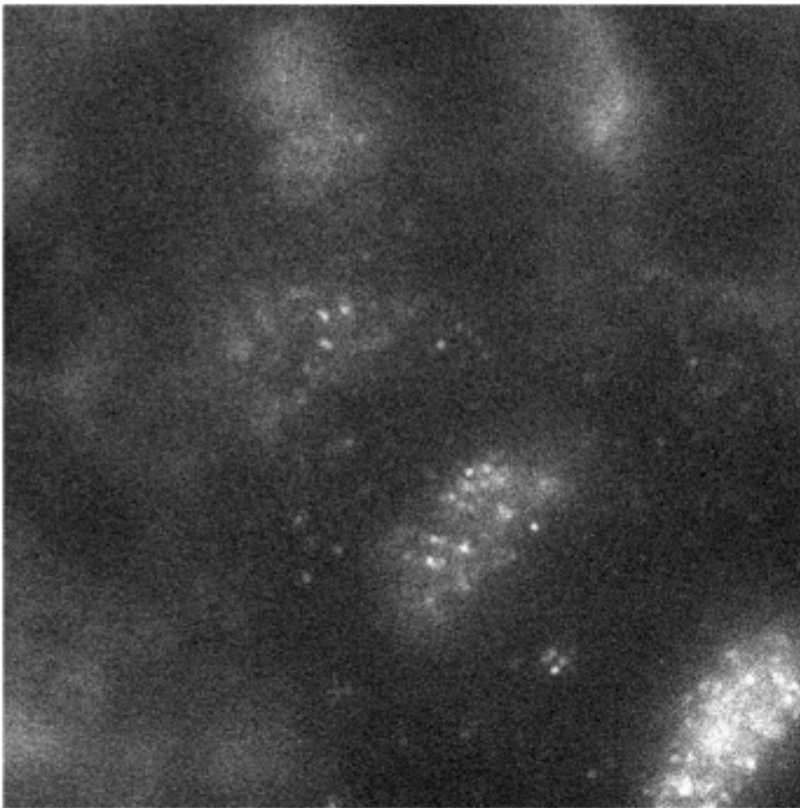




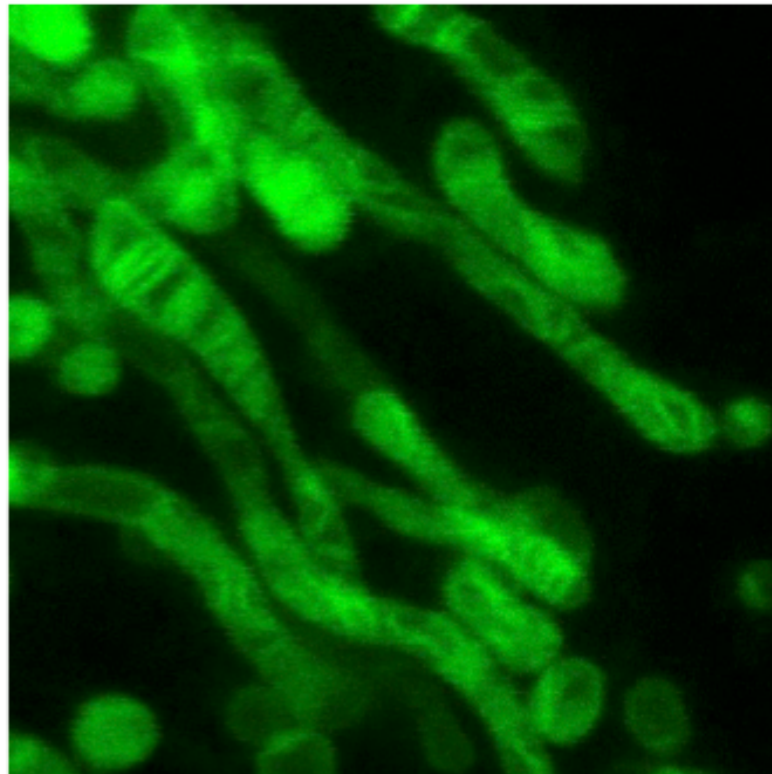
Superresolution Microscopy (SIM)



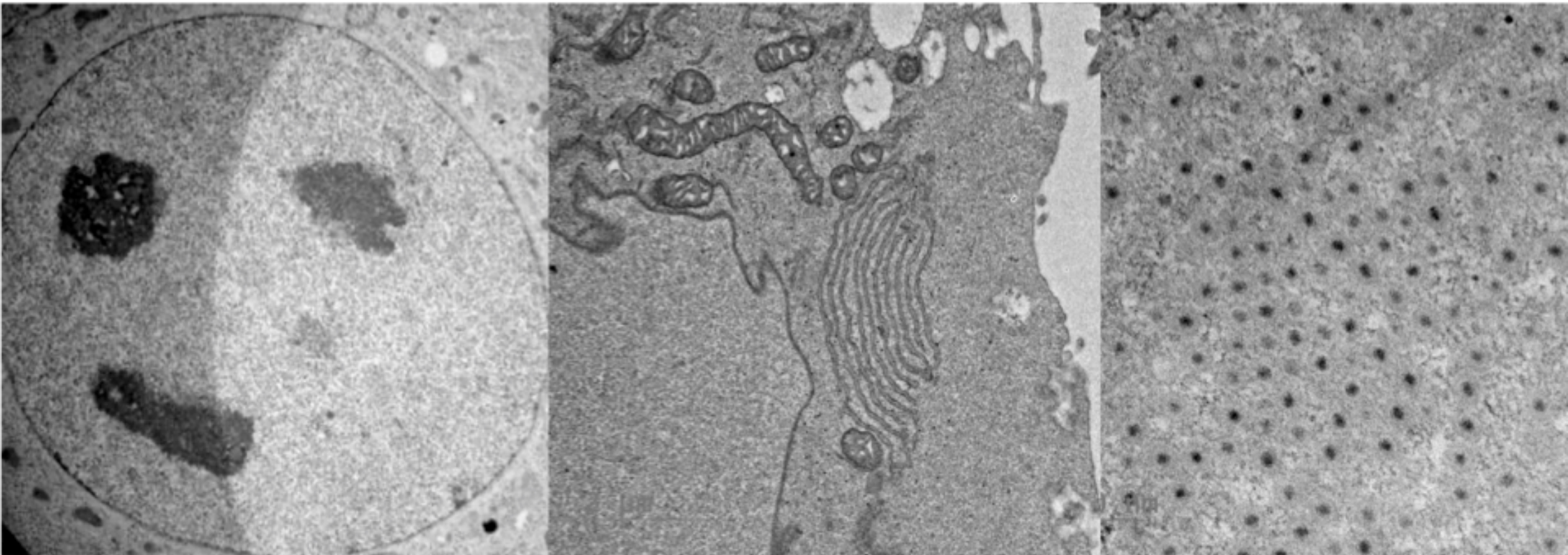
Super Resolution Microscopy (SMLM)



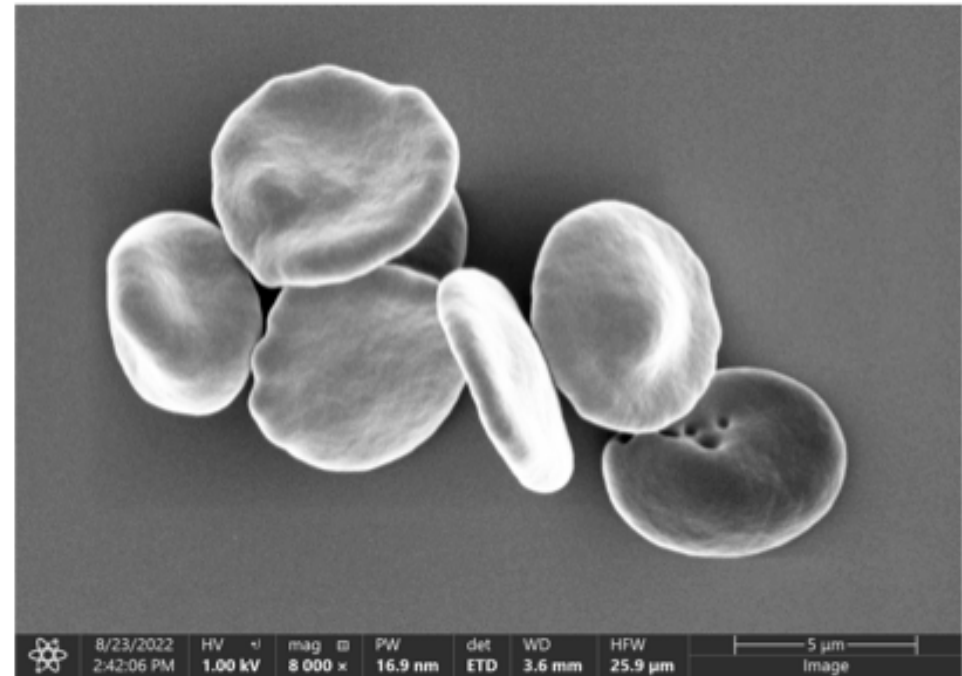
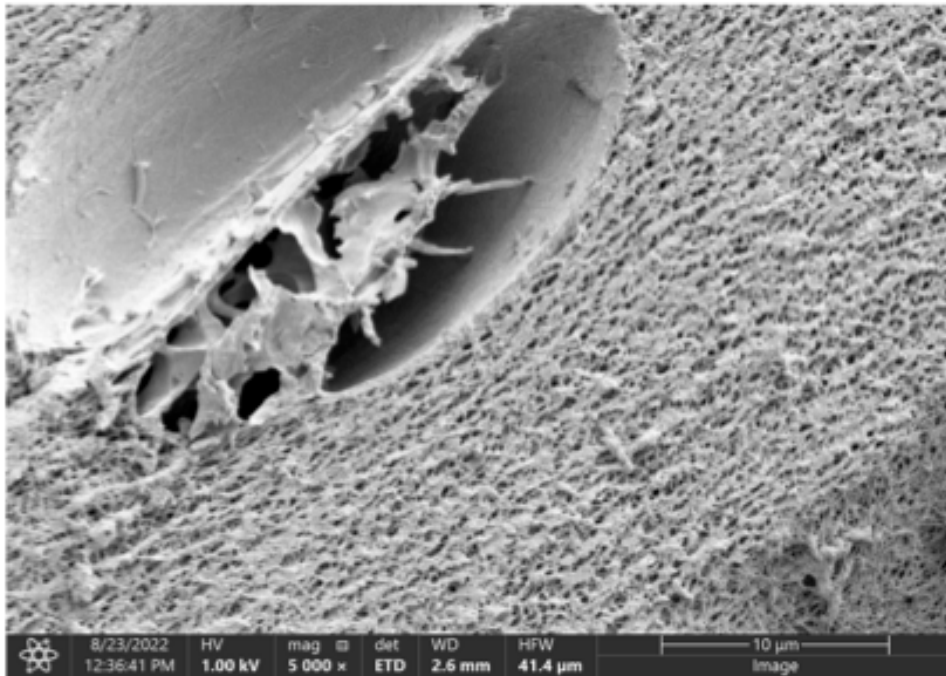
Super Resolution Microscopy (STED)



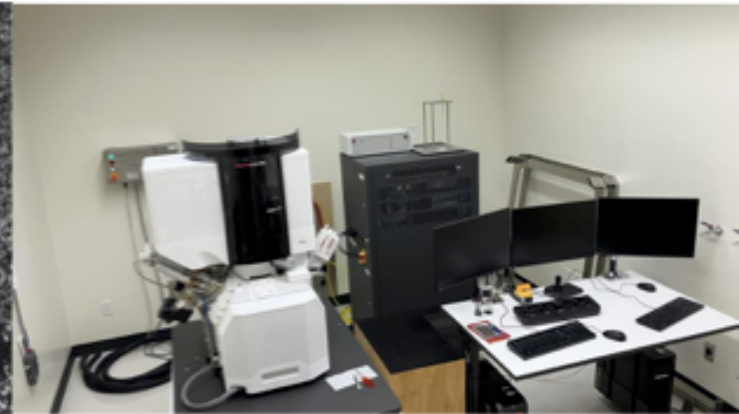
TEM



SEM



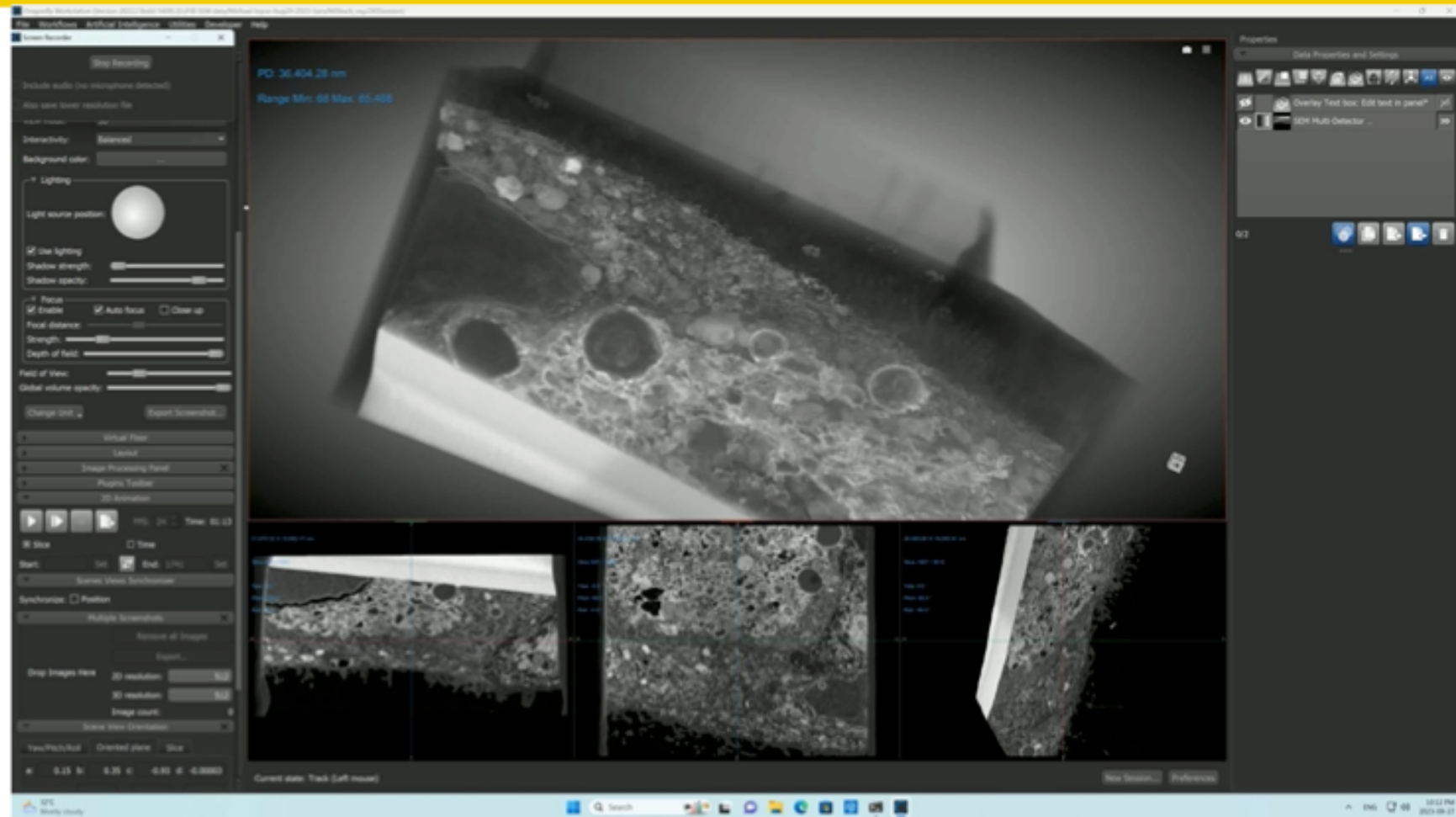
SEM



FIB-SEM

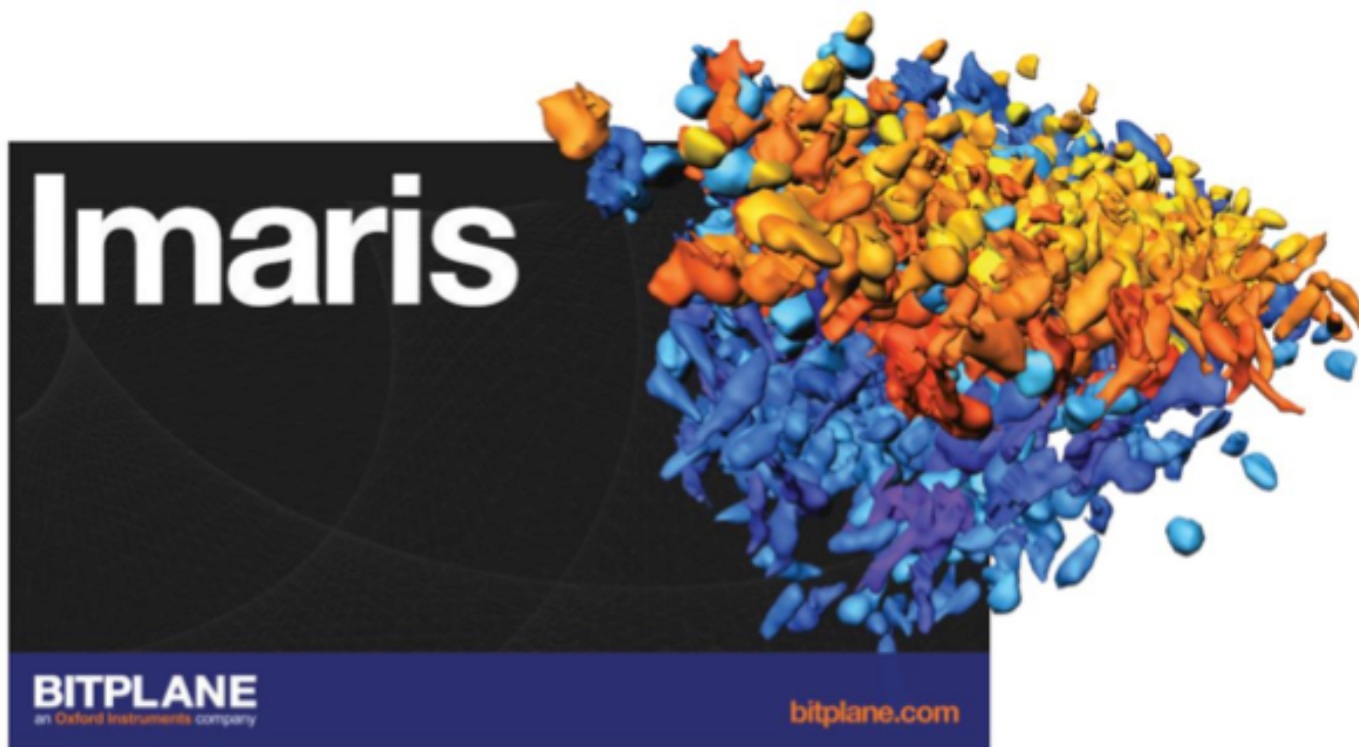


FIB-SEM



FIB-SEM 3D Reconstruction





<https://imaris.oxinst.com>



<https://www.mathworks.com>



<https://www.volocity4d.com>



3D Datasets
Segmentation

Open Source Software



Acknowledgements

Cell Imaging Centre

Kiera Howie, B.Sc.
Shiau-Yin Wu, M.Sc
Sara Amidian, Ph.D.

Andrew Simmonds, Ph.D.
Colleen Sunderland, M. Sc.

User Committee

Andrew Simmonds, Ph.D.

Gordon Chan, Ph.D.
Nicolas Touret, Ph. D.
David Marchant, Ph. D.
Jen Hocking, Ph, D.
Maria Ioannou, Ph.D.

XueJun Sun, Ph.D.
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Joanne Lemieux, Ph. D.

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