Multimodal, Multiresolution, Multivolume Data

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Goal: Study/diagnosis of AMD (age-related macular disease)

Current data: RPE (retinal pigment epithelium) tissue from donors

Future data: In-vivo hyperspectral camera
Overview
**Input Data**

**SIM Data (488nm)**

**LSM Data (shown 597nm)**

Multivolume across 24 emission wavelengths
Segmentation of Organelles from SIM

3D Slicer GrowCut: Segmentation of “dark” and “white” organelles
Autofluorescence Analysis of Granules

- 3D/4D registration
- 3D segmentation
- Multivolume quantitative analysis
To be developed ...

- 3D labels
- 4D multivolume
- ? so far external python script
- ? multivolume support for non-Dicom data
Work in Progress:

**Research question:** Spatial distribution of granules within the cell (granules/layer)

3D segmentation of granules within single cell