



BIDAC project update

Image acquisition and analysis of fluorescing specimen (via SPIM)

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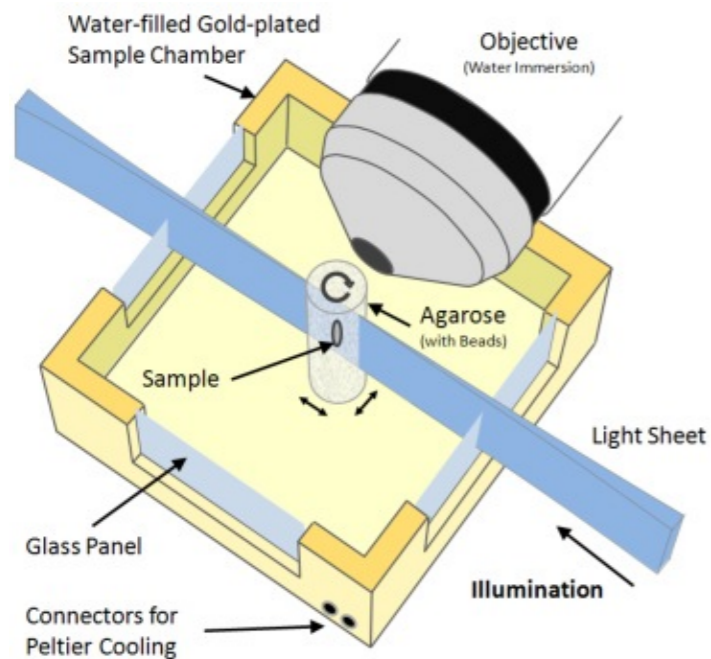
Project update

1) Open-SPIM hardware installation

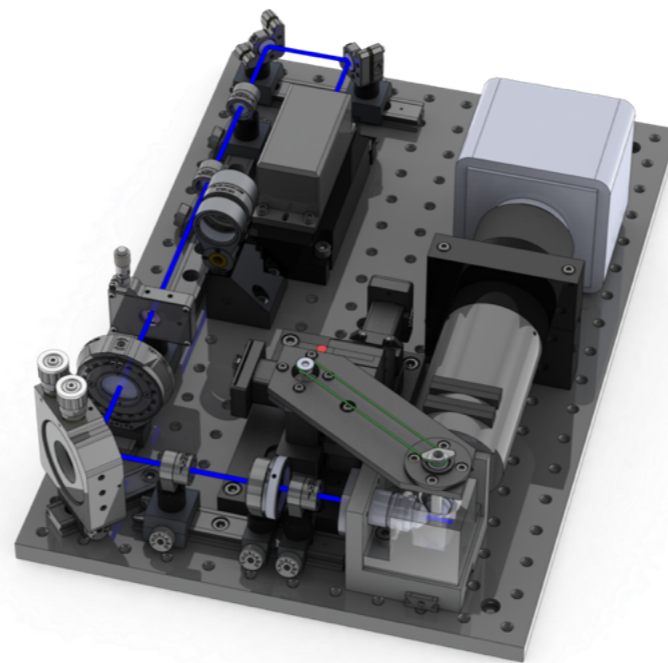
- SPIM: Single Plane Illumination Microscopy

2) Image acquisition and calibration

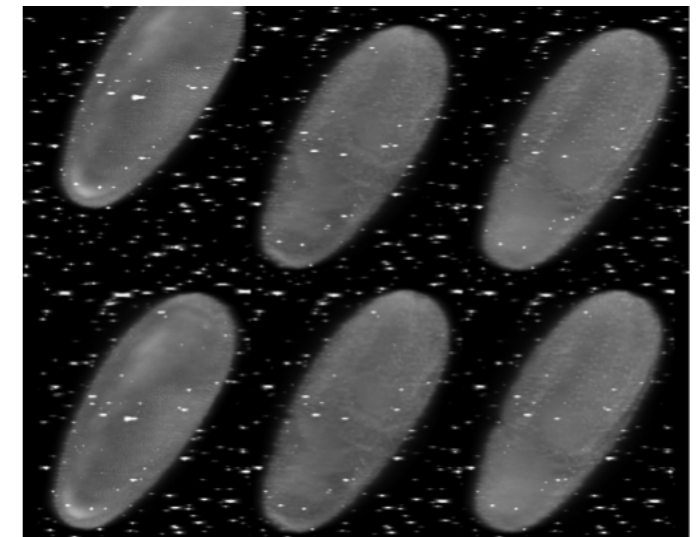
- multi-channel, multi-view, longitudinal (in progress)



SPIM principle



OpenSPIM hardware

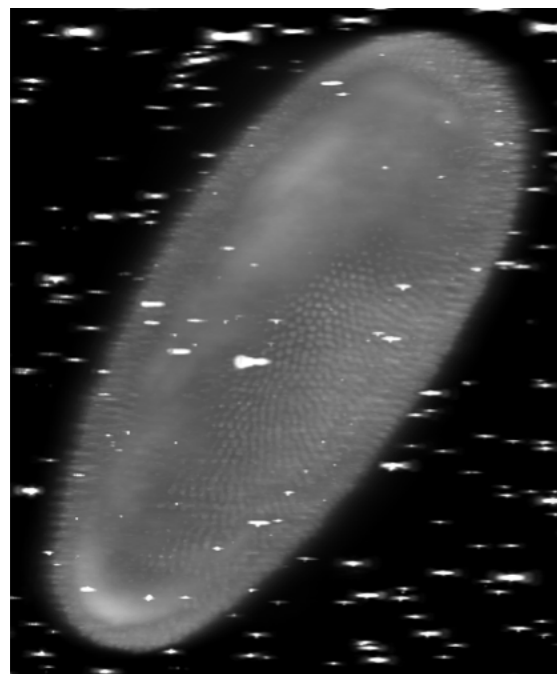


**OpenSPIM
multi-acquisition
(sample data)**

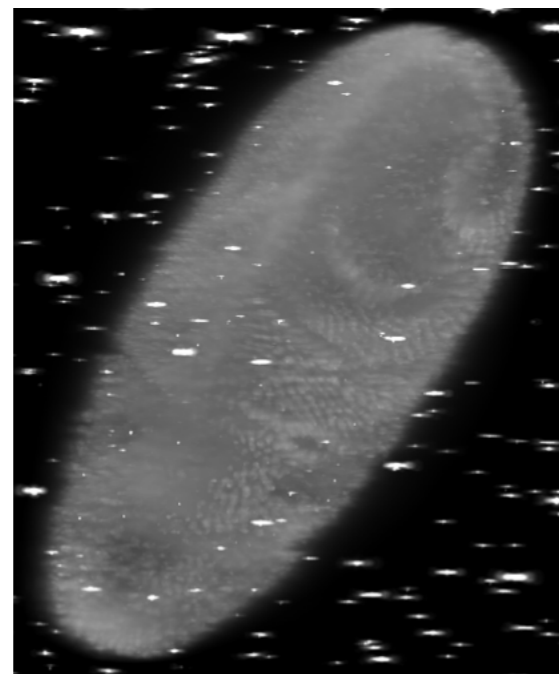
Project update

2) Image acquisition and processing framework for longitudinal multi-angle acquisition

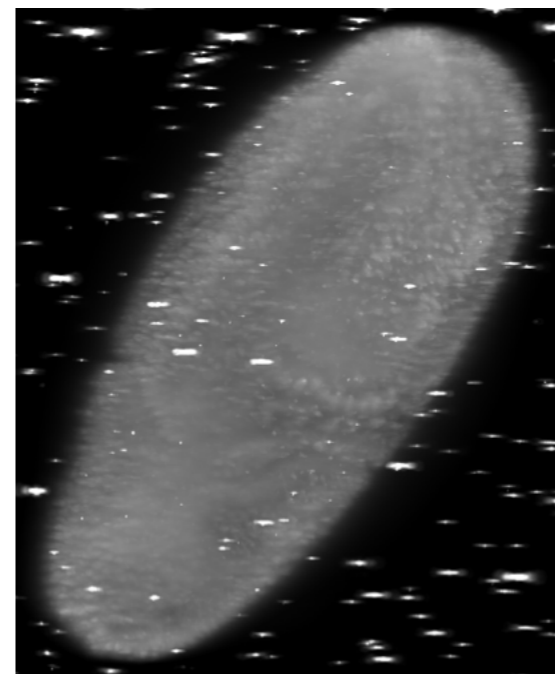
- In progress...



Time point 0



Time point 3



Time point 6

Maximum intensity projection after longitudinal multi-view registration (on sample dataset)

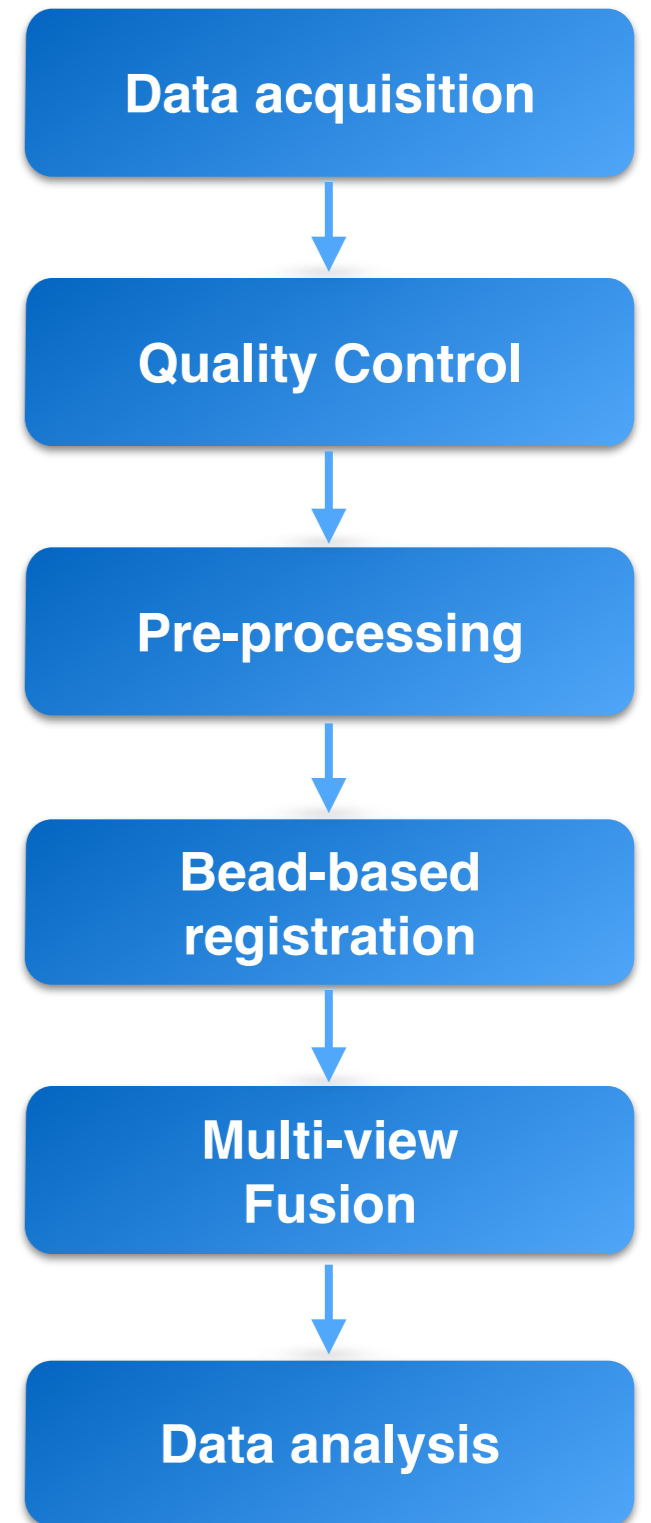


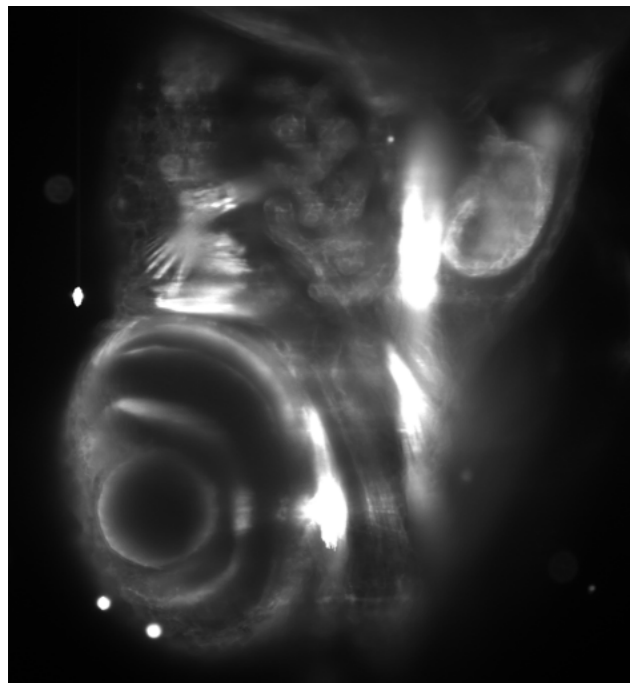
Figure: Image processing framework

Project update

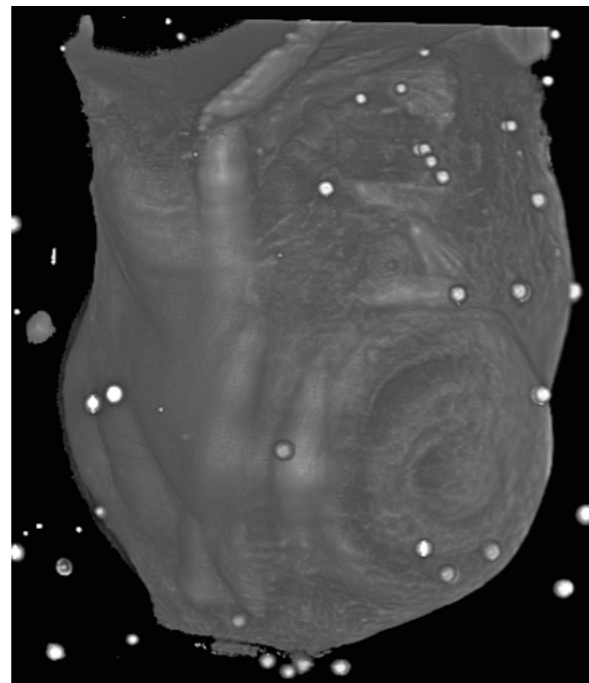


3) 3D visualization (and possible analysis) via FluoRender (SCI software)

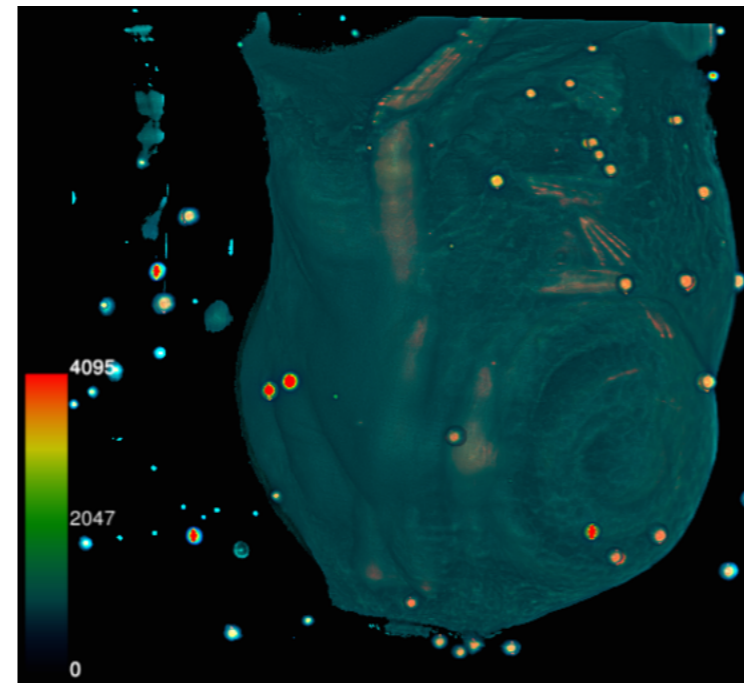
Example with zebrafish: head and circulatory system



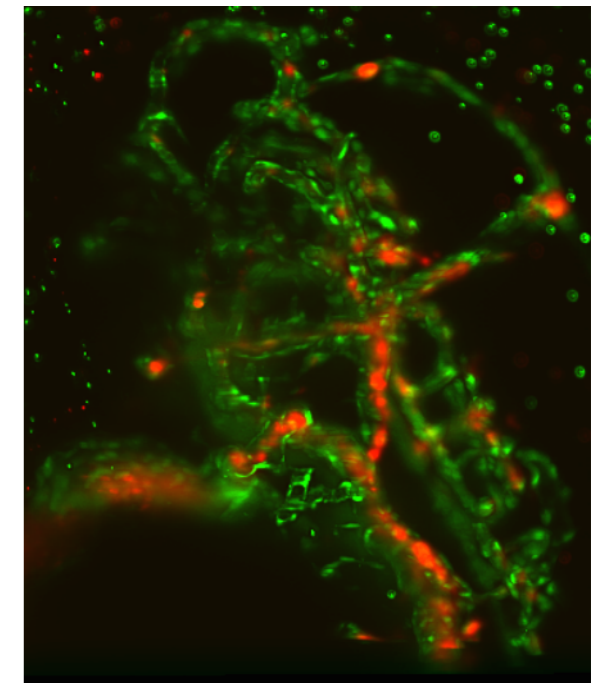
2D view via Fiji
(ImageJ distrib.)



3D view via
FluoRender



Colored 3D view via
FluoRender



Colored 3D view via
FluoRender
(multi-channel
acquisition)