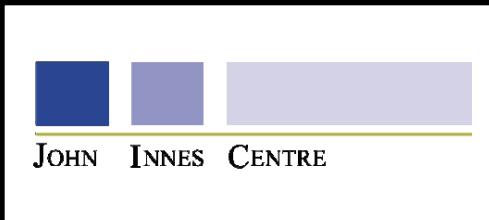


OMERO.inAction

at the John Innes Centre



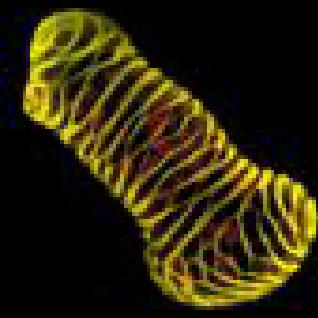




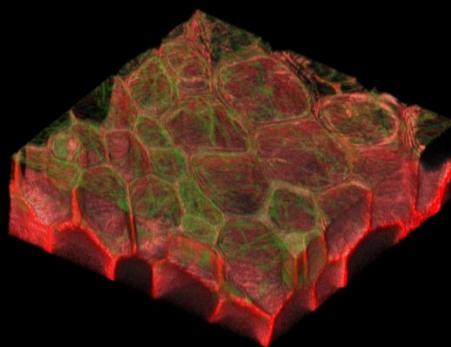


CONFOCAL

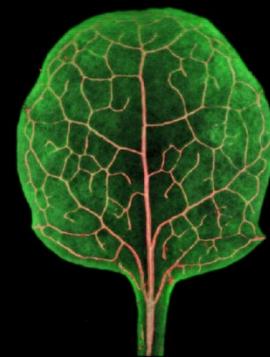
OPT



CELLS



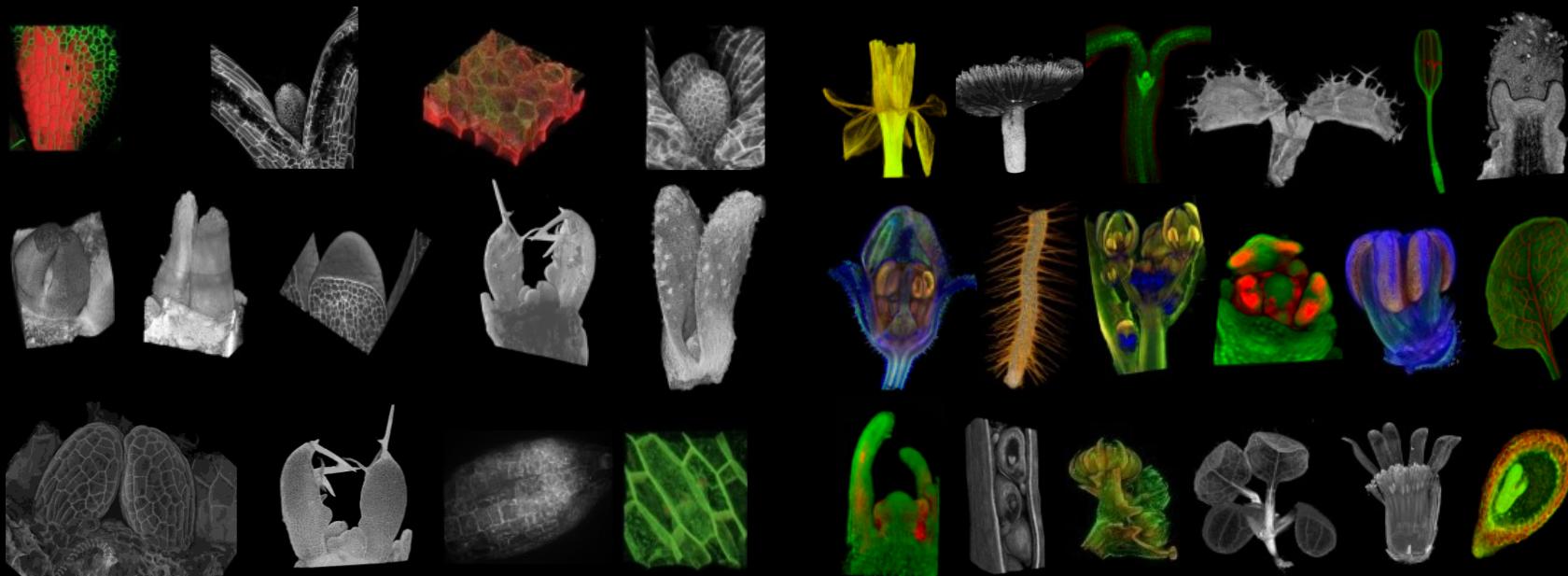
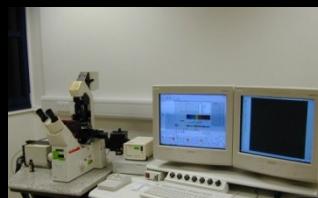
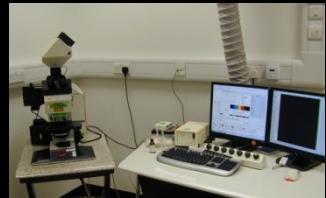
TISSUES



ORGANS



ORGANISMS



Vistech Spinning
Disk

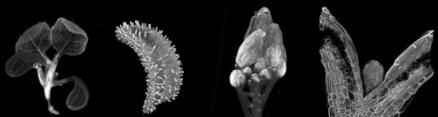


MicroOPT

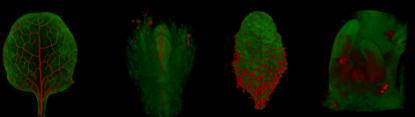
the Bio-Image

5D Image

Spatial
 x,y,z



Channels
 c



Temporal
 t



Metadata

5D Image

Metadata

Acquisition

objective, magnification, laser, microscope

Management

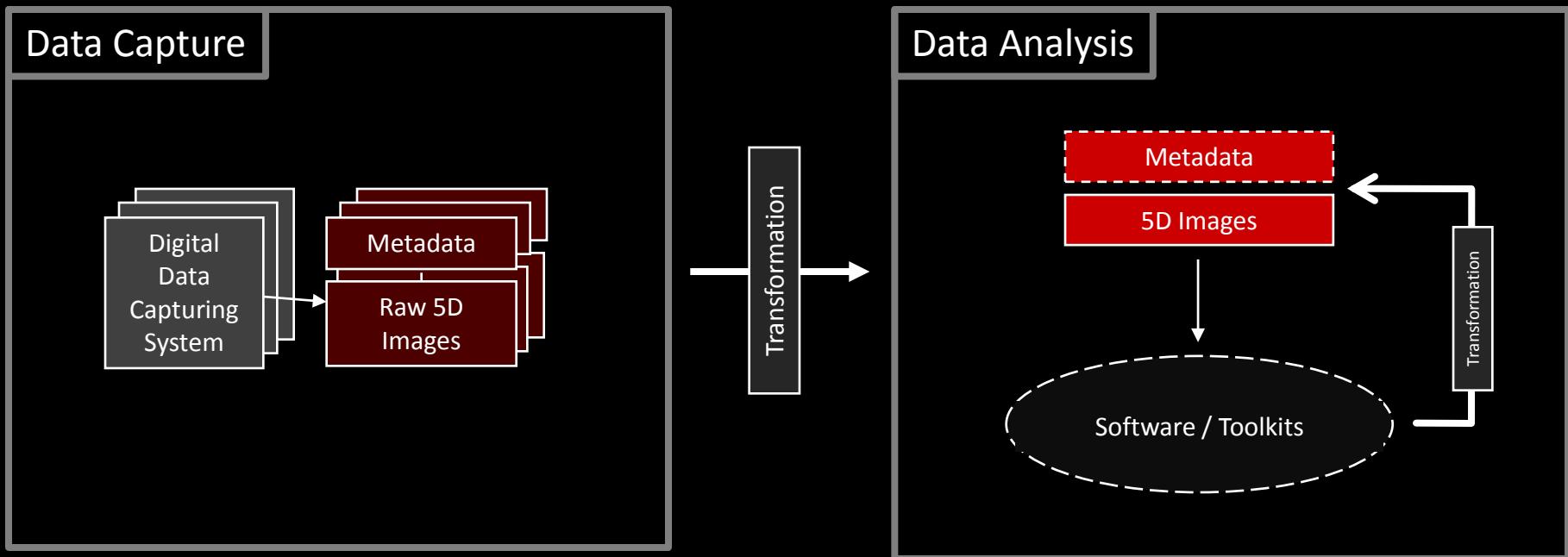
ratings, tags, descriptions

Visualisation

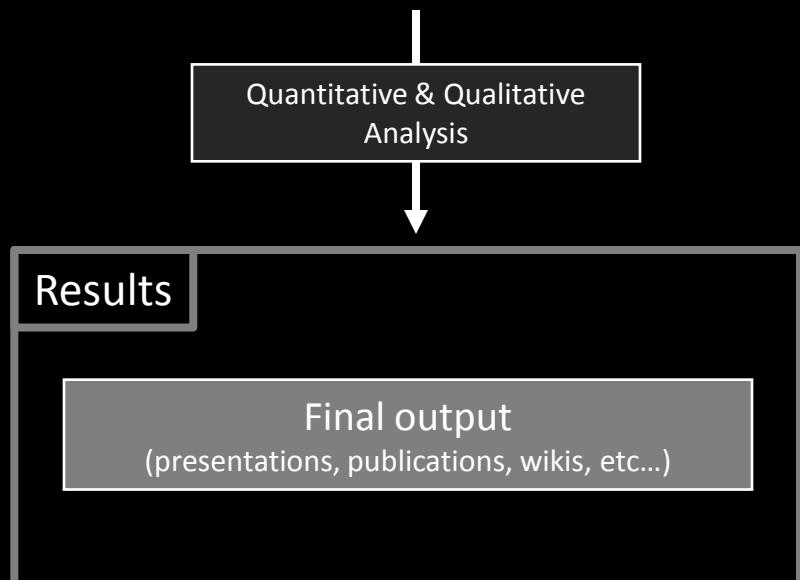
projections, thresholds, transfer functions

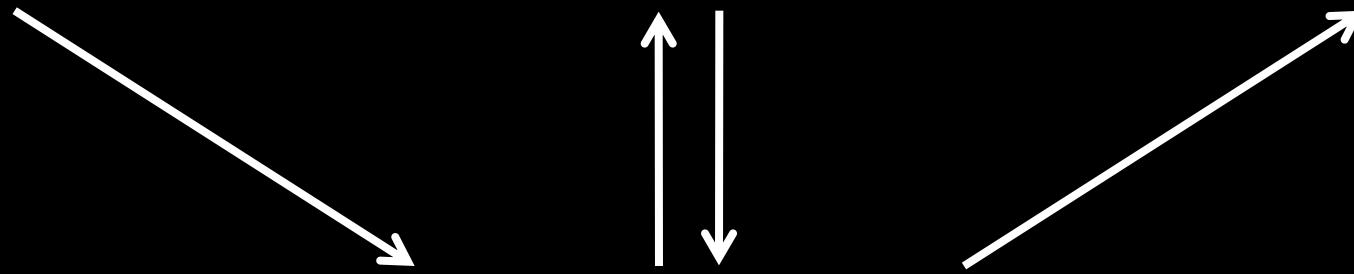
Quantification

regions of interest, measurement,s, statistics



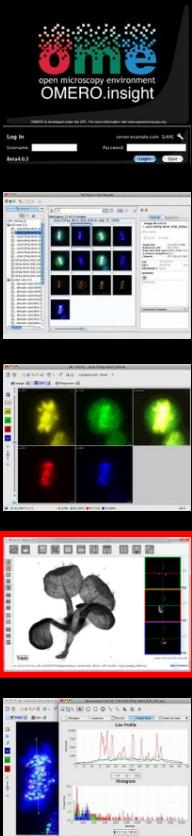
- No standardized image & metadata formats.
- Analysis reusability becomes harder.
- No strong link between images, analysis and results.





- 1 year JISC funded project
- Built data management infrastructure around OMERO
- Made some of our tools OMERO compatible
- Created reusable OMERO resources

Client Software



Bio-Imaging Service

Optical Projection Tomography
Electron Microscopes
Light Microscopes

JIC/NBI File Stores

OMERO



UEA

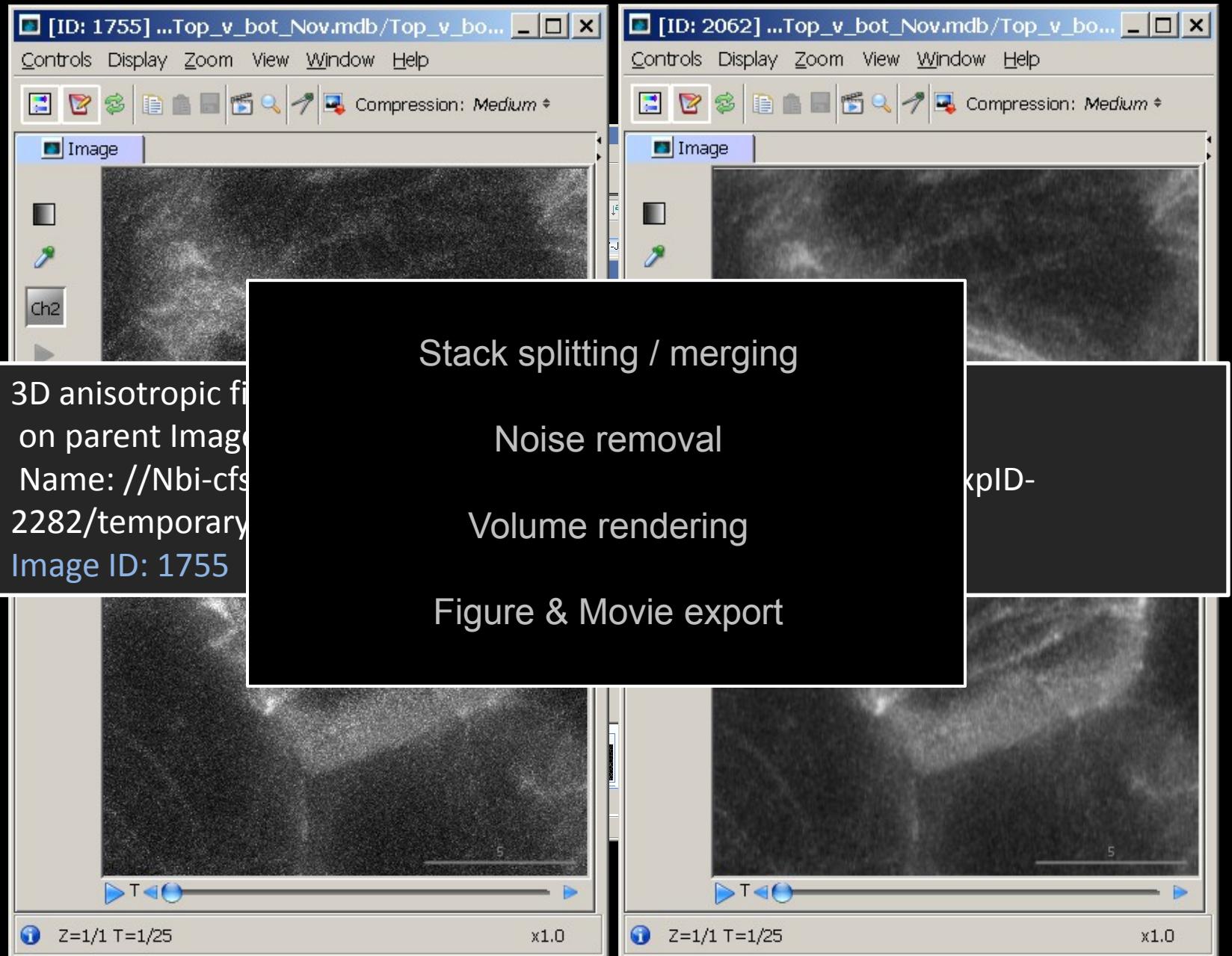
UEA File Stores

OMERO

MEDIAWIKI

Processing Service

Noise removal
Stack splitting / merging
Volume rendering
Figure & Movie export



Main Page - LabGuide - Mozilla Firefox

File Edit View History Bookmarks ScrapBook Tools Help

Main Page - LabGuide +

http://cmpartsrv1.cmp.uea.ac.uk/wiki/LabGuide/index.php/Main_Page Wikipedia (en)

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[page](#) discussion edit history delete move protect watch

Main Page

Plants Arabidopsis > Arabidopsis Leaf > Phase C Trichome Patterning > Trichome marked leaf stages > Main Page

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- Computational Projects
- Software Development Projects

2 Research Guides [edit]

- Experimental Methods
- Theoretical Background and Tutorials
- Nomenclature and Labelling
- Talks,papers,theses and grants
- Papers In Progress
- Pending Public Pages
- Biological Background

3 Repositories [edit]

- Experimental
- Computational Models
- Software
- Hardware

4 Lab Life [edit]

Personal Pages

Notice Board | Calendars | Useful Links

New Users: Start Here | Experimental Induction | Computational Induction

logs | status | Running since February 2008 | users:69 | pages:1,061 | files:6,854 | views:150,012 | edits:87,272

This page was last modified 14:37, 14 March 2011. This page has been accessed 21,680 times. Privacy policy About LabGuide Disclaimers

Powered By MediaWiki

This is an example of embedding the OMERO.web image viewer pointing to a specific image that is stored on the UEA OMERO server.

Viewing Options

- Normal
- Max Intensity
- Split Channel

Quality:

Zoom:

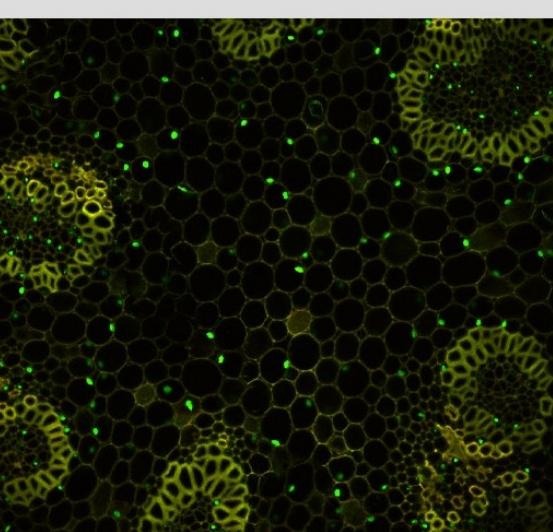
Line Plot:

Rendering Details

Channels: 0 1 Color

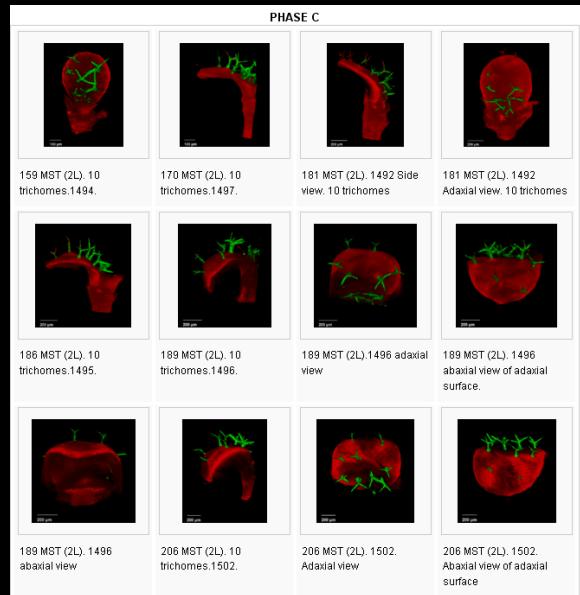
Current Image: Z: 13/22 | T: 1/1

Image Information

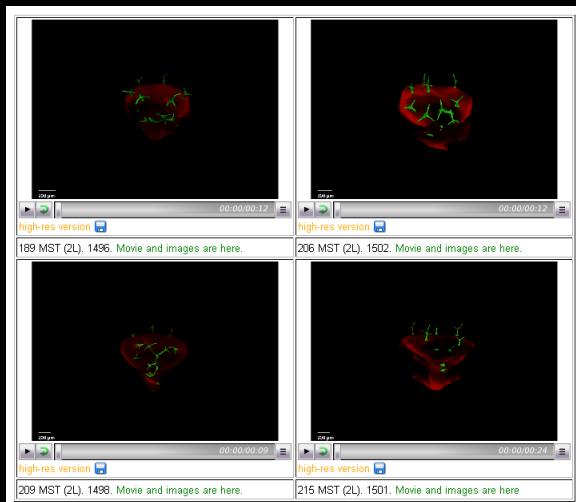
Z-sections  Timepoints

Here you can then explain what you see in the image.

Publish from OMERO



	1513 1513whthrogfp313p6, 1513gfp313p6,1513txr13p6	13.850 microns per voxel	Leaf width 4081.63um	MST 322.75	Phase E	12 Trichomes
	1514 1514whthrogfp318p4,1514gfp318p4,1514txr18p4	10.237 microns per voxel	Leaf width 3011.48 um	MST 285.38	Late Phase D	10 Trichomes
	1515 1515whthrogfp321p2,1515gfp321p2,1515txr21p2	8.885 microns per voxel	Leaf width 3015 um	MST 285.5	Late Phase D	10 trichomes
	1516 1516whthrogfp320p3,1516gfp320p3,1516txr20p3	9.279 microns per voxel	Leaf width 3180.75	MST 291.03	Early Phase E	10 trichomes
	1517 1517whthrogfp316p5,1517gfp316p5,1517txr16p5	11.416 microns per voxel	Leaf width 3494.24	MST 301.63	Phase E	10 trichomes



OMERO.web

<wikiembed >

[http://omero.nbi.bbsrc.ac.uk/webclient/img_detail/1913/?c=1|0:255\\$FF0000,2|1:255\\$00FF00&m=c&p=normal&q=0.9&zm=100&t=1&z=13&x=0&y=0](http://omero.nbi.bbsrc.ac.uk/webclient/img_detail/1913/?c=1|0:255$FF0000,2|1:255$00FF00&m=c&p=normal&q=0.9&zm=100&t=1&z=13&x=0&y=0)

</wikiembed>

OMERO.python + PyWikipediaBot

<omero>DATASETID=5</omero>

OMERO.inAction

- OMERO.Lectures:
 - International meeting @ JIC
 - >70 delegates / 7 Speakers
- OMERO.Workshop
 - 2 day hands on training workshop
 - 24 delegates
- Online Training Material:
 - Google: [“OMERO Workshop Course”](#)



Confocal



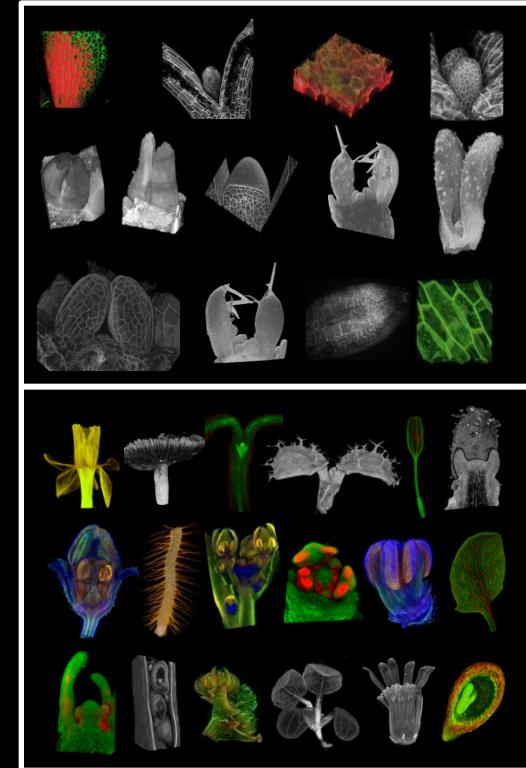
Optical Projection
Tomography



Biological Images

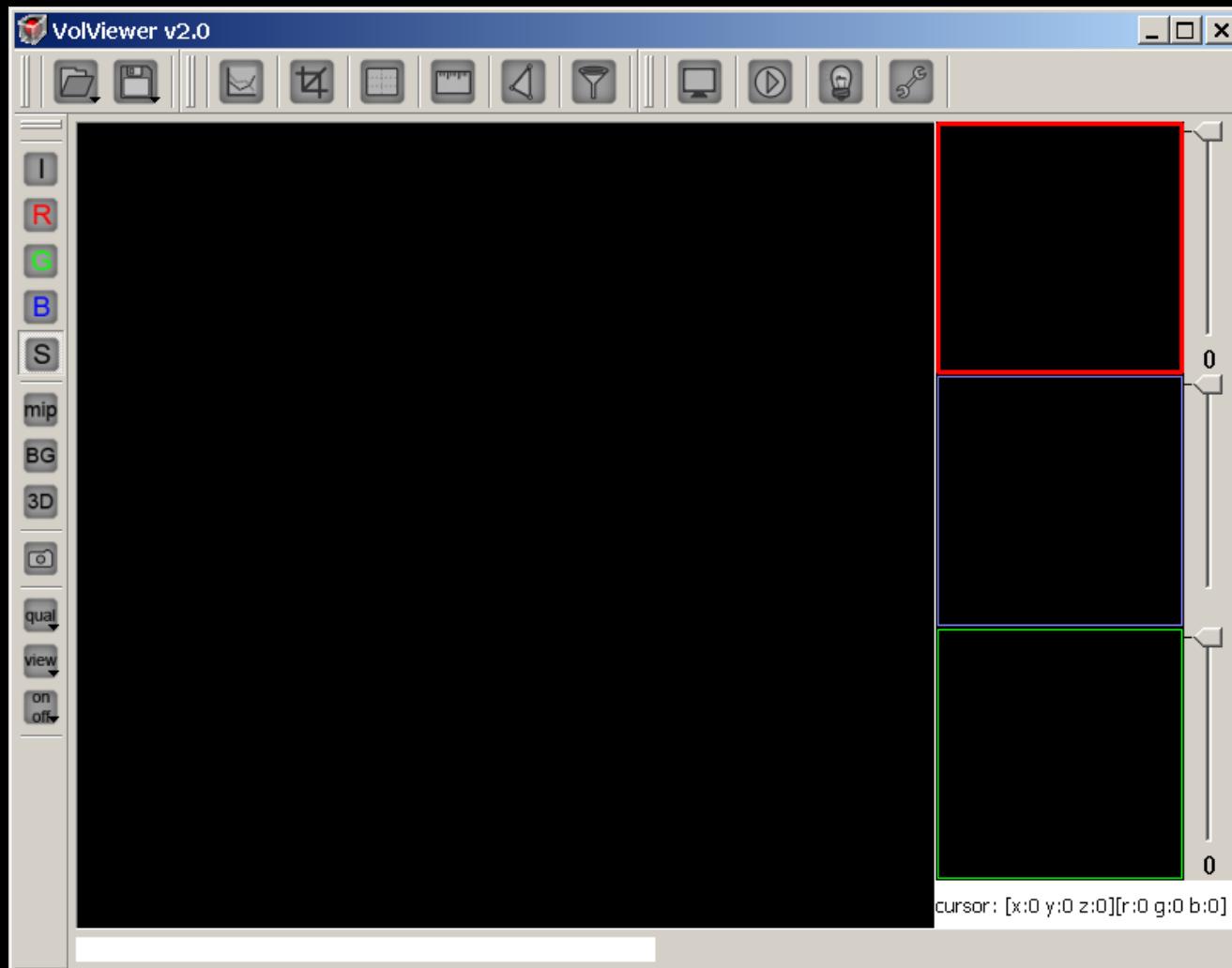
multi-dimensional (x,y,z,c,t)

GigaBytes of data



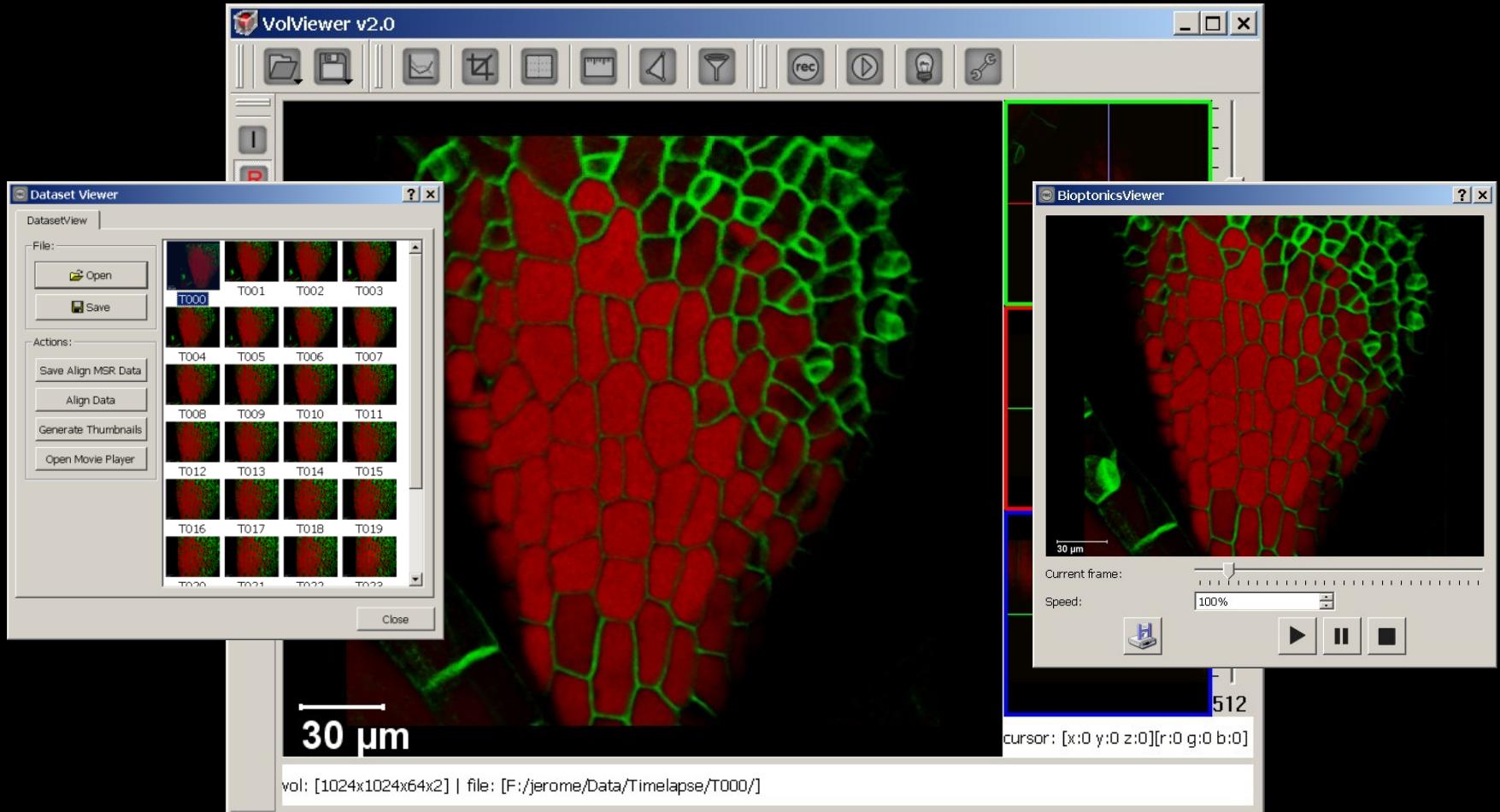
Volume Rendering: generating a viewable image from the multi-dimensional data.

VolViewer

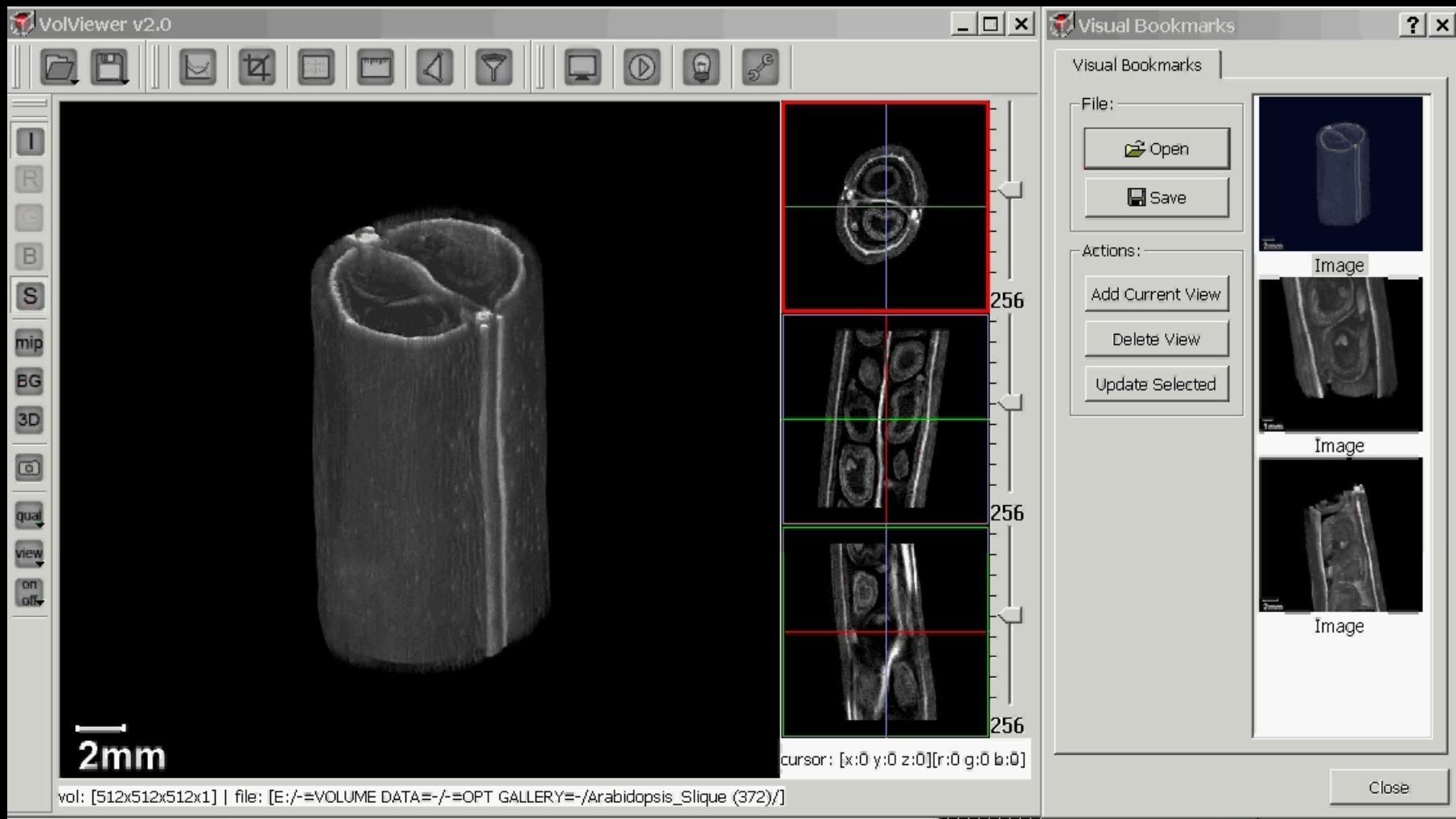


Google: "[VolViewer Jerome Avondo](#)"

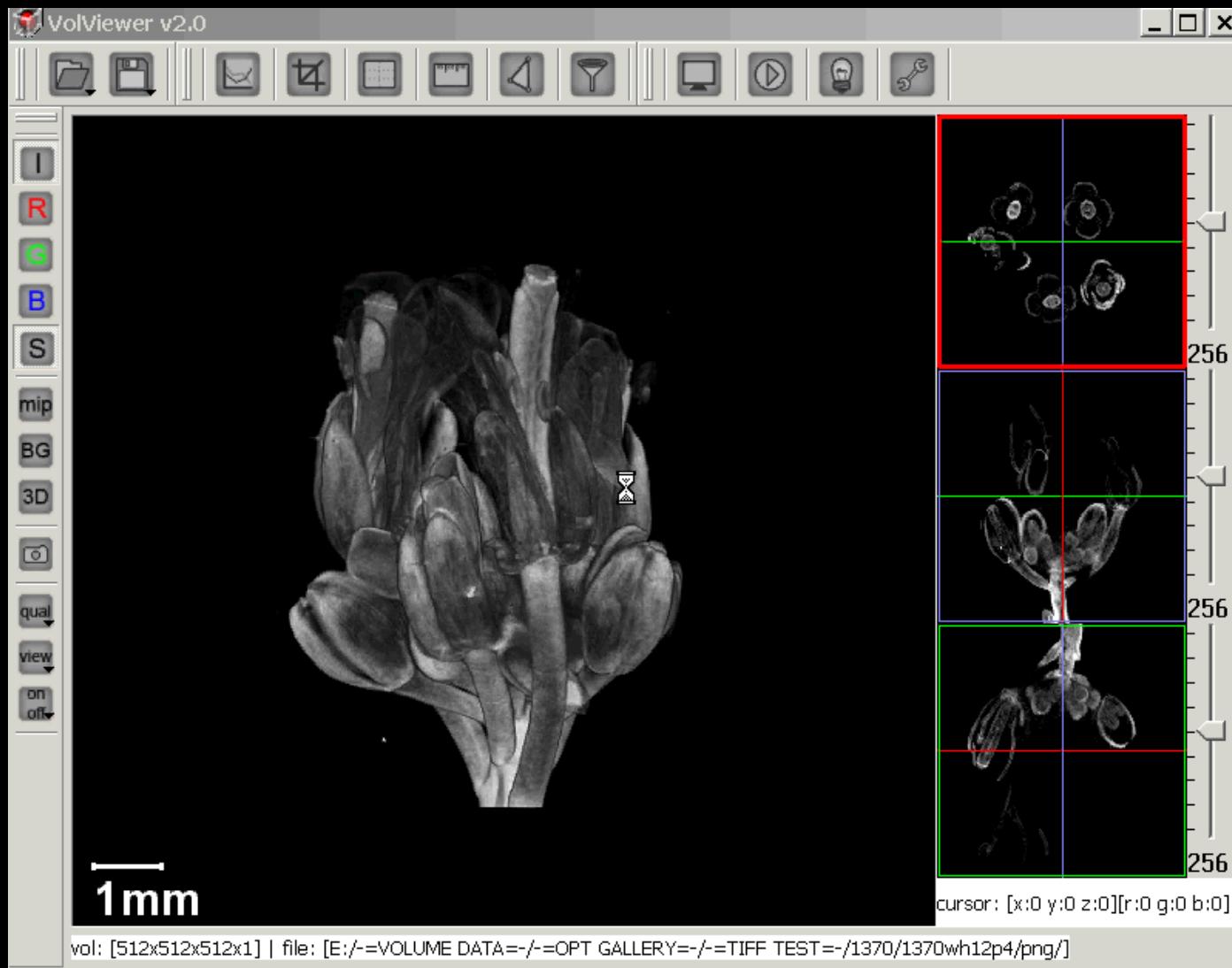
Timelapse browser



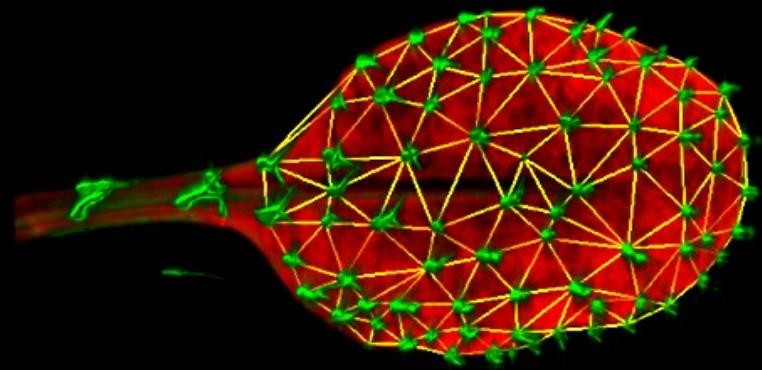
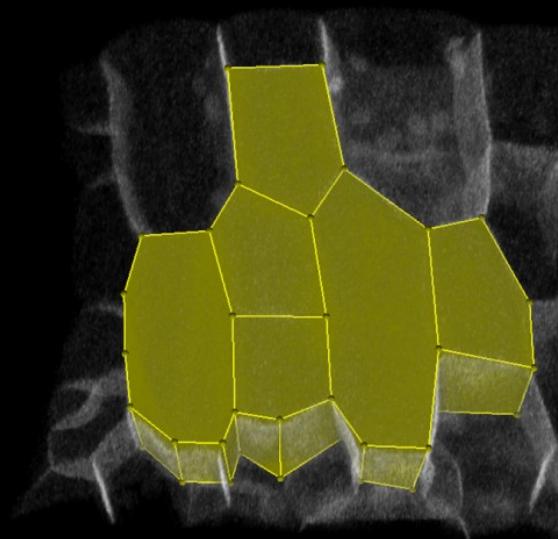
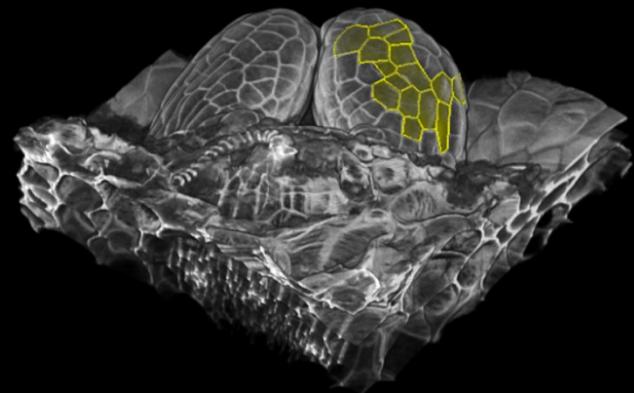
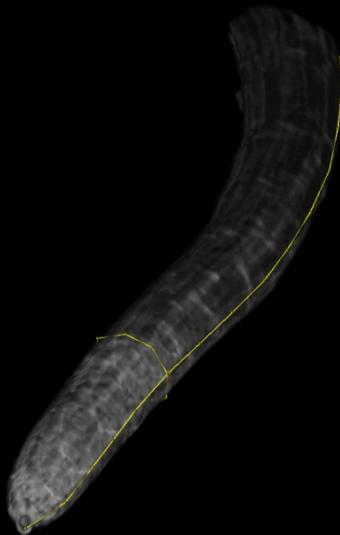
Visual Bookmarks



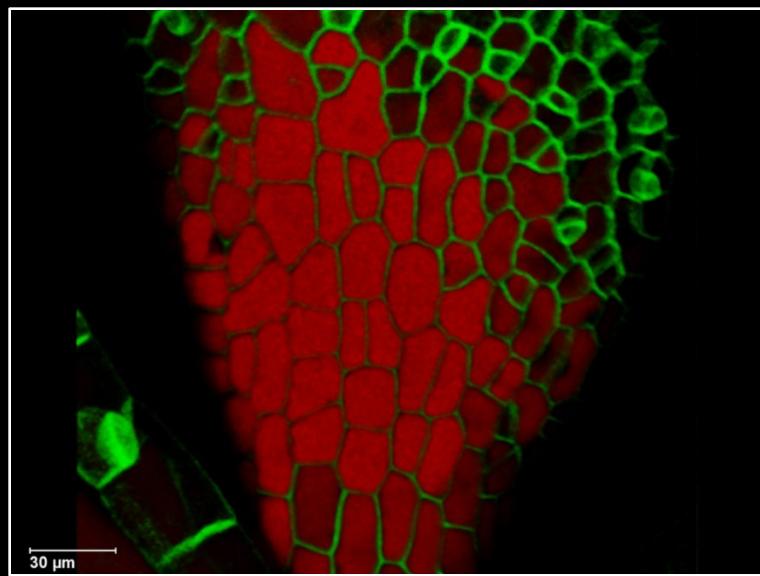
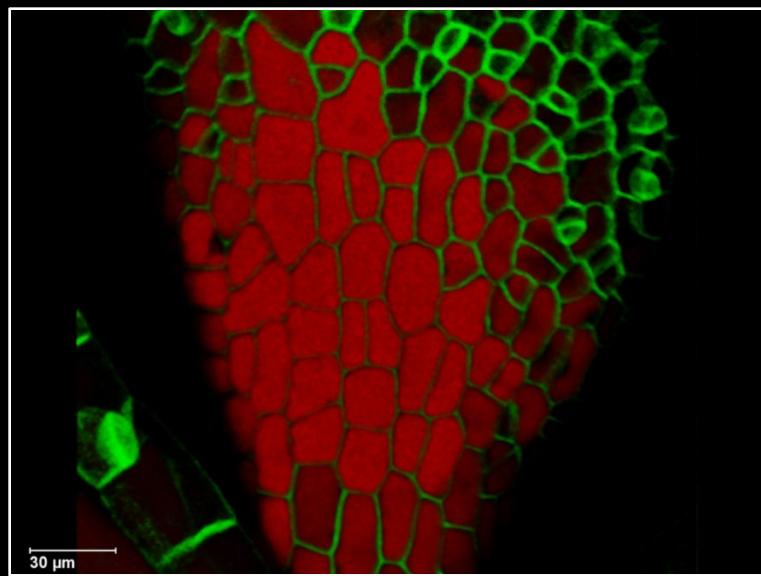
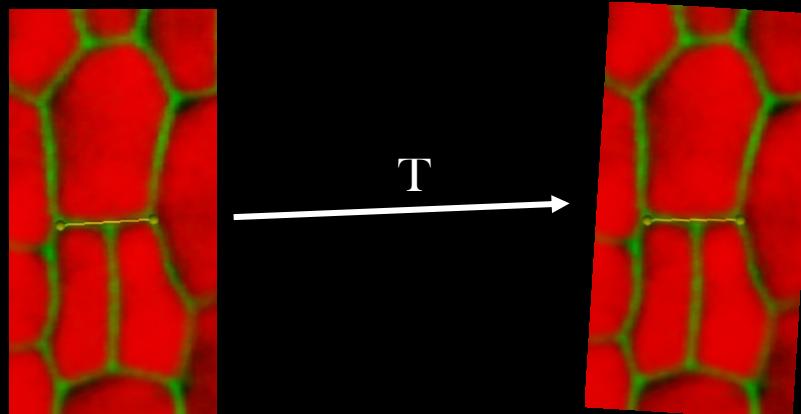
Measurements



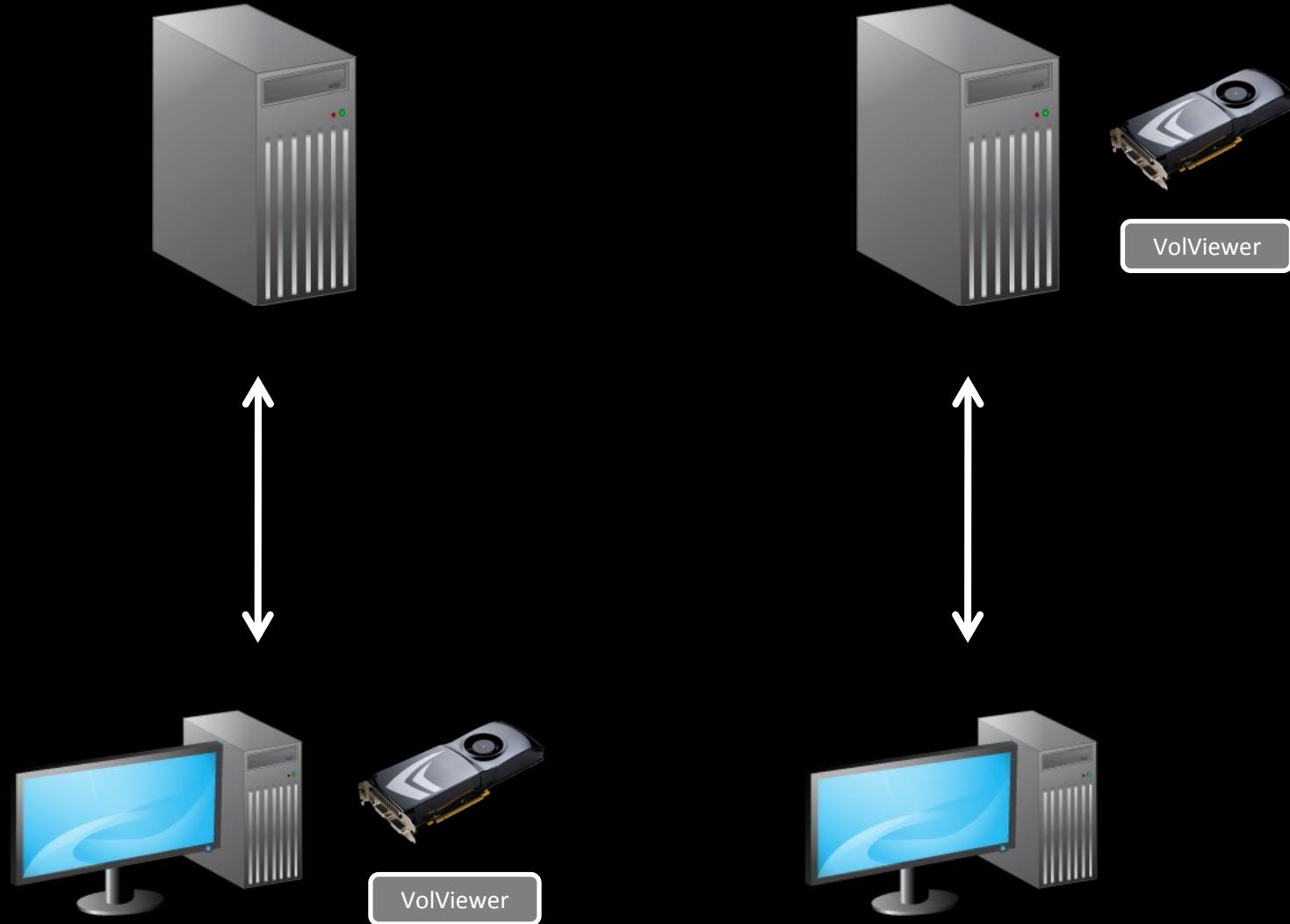
Measurements



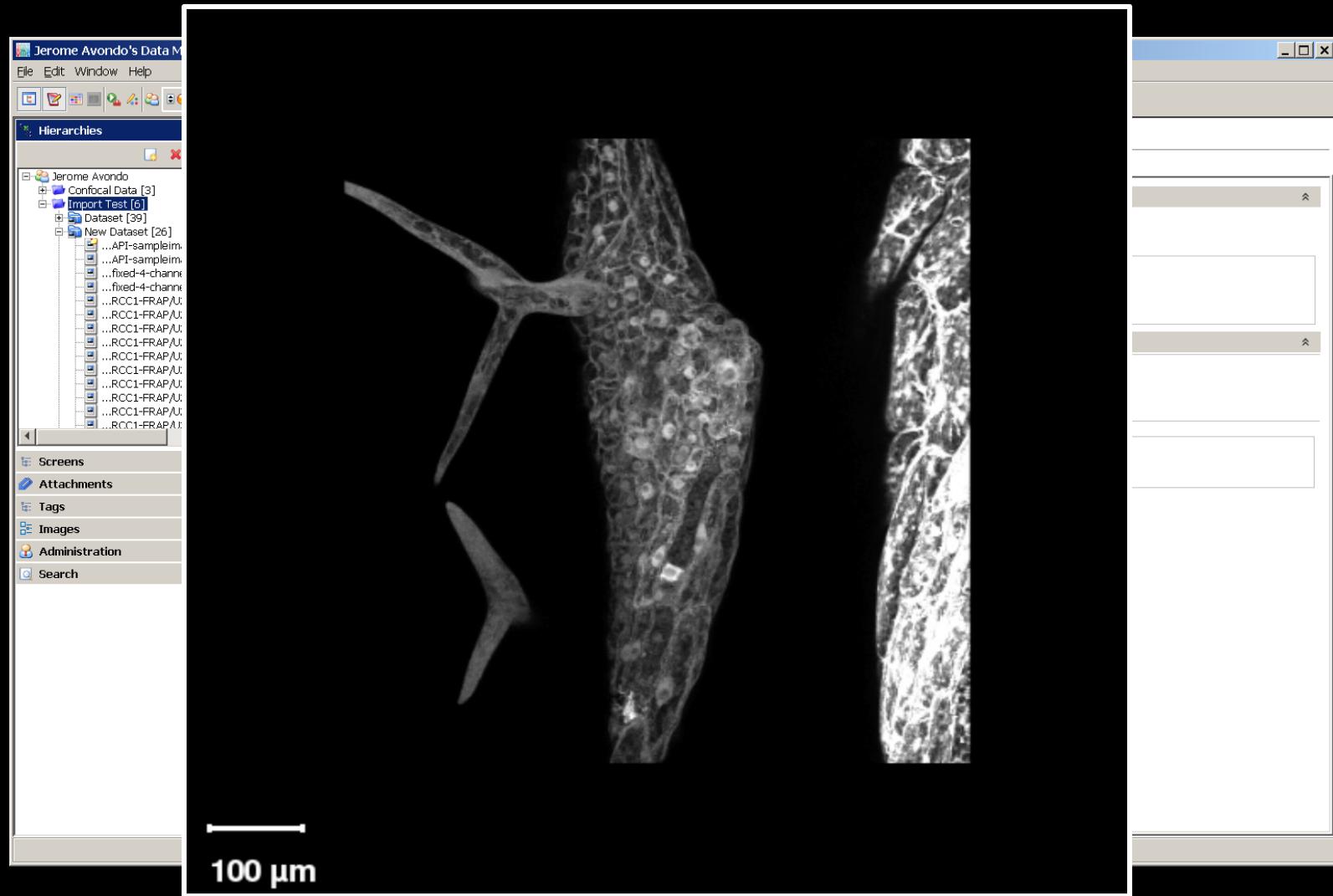
3D Alignment

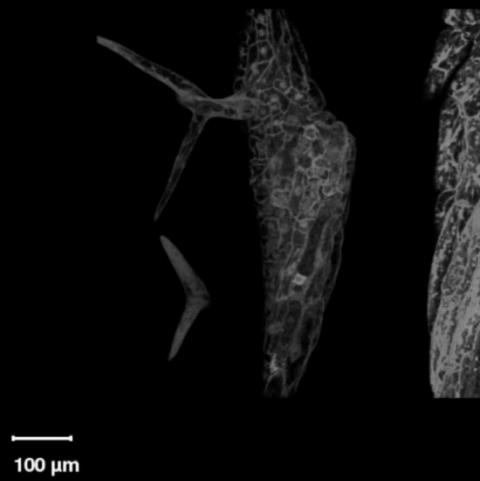


OMERO Client / Server



Serve side rendering

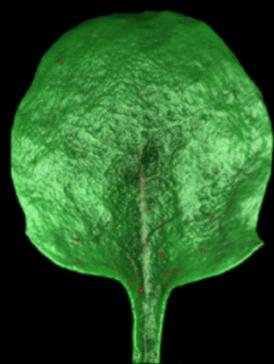




Rock movies

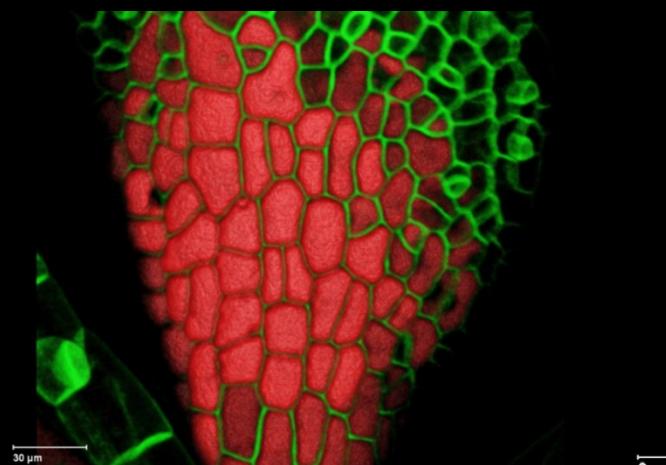


Rotation

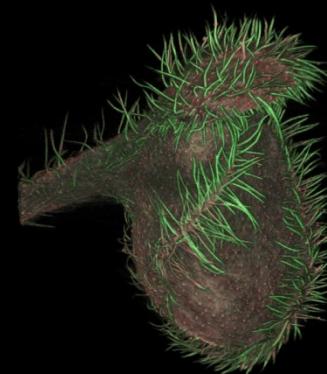


2mm

Channel fade



Timelapse



Key-framing

Acknowledgements.

Andrew Bangham.

(*University of East Anglia, UK*)

Enrico Coen.

(*John Innes Centre, UK*)

Grant Calder.

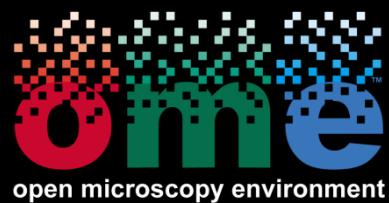
(*John Innes Centre, UK*)

Paul Fretter.

(*John Innes Centre, UK*)

Steve Rawsthorne.

(*John Innes Centre, UK*)



Jordi Chan, Sascha Duttke, Sam Fox, Karen Lee, Susana Sauret-Gueto

(*John Innes Centre, UK*)

