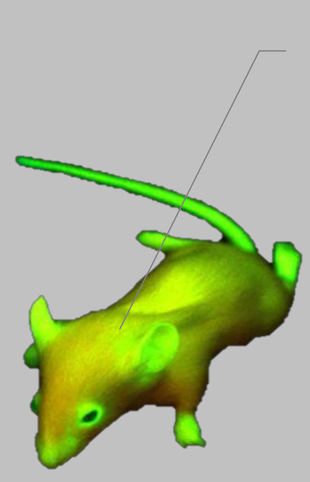
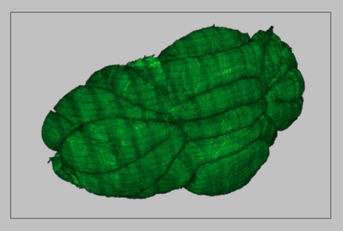
Projectome

International Center of Computational Neurophotonic

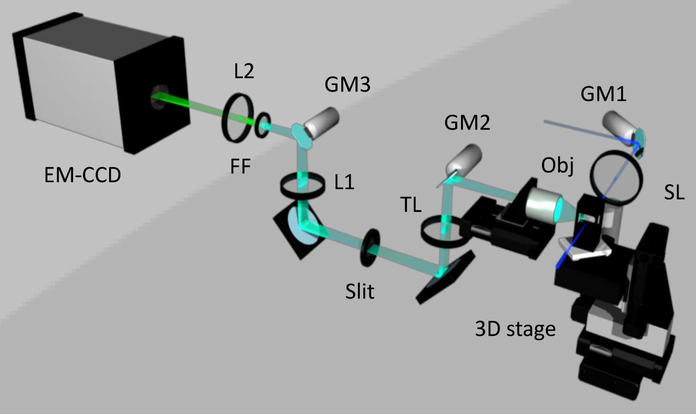
Set up and testing of a High Performance Computational Infrastructure for processing and visualizing neuro-anatomical information obtained using CLSM



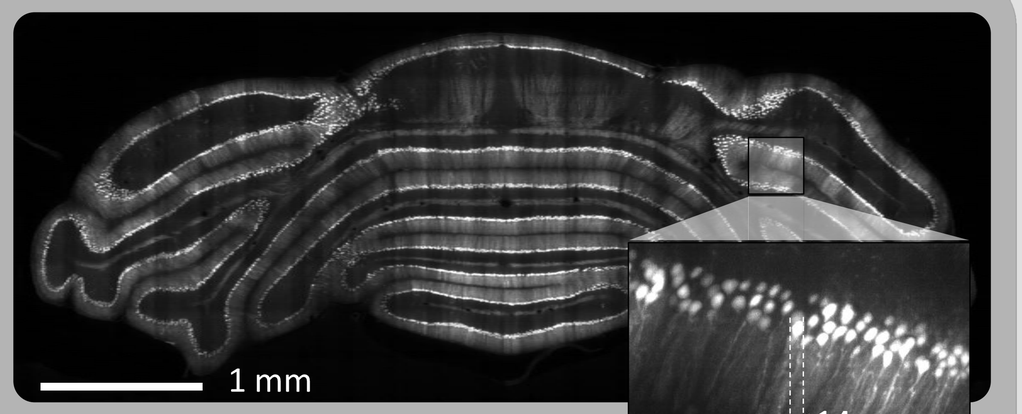


Cerebellum

P10 L7-GFP mouse



Confocal Light Sheet Microscopy (CLSM)



Teravoxel-sized 3D image

Biophotonics Group

GridFTP

CINECA

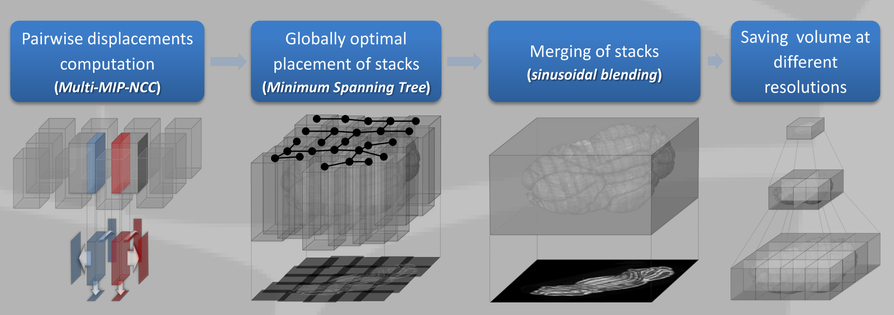
Projectome Environment

High Performance Computing platform running:

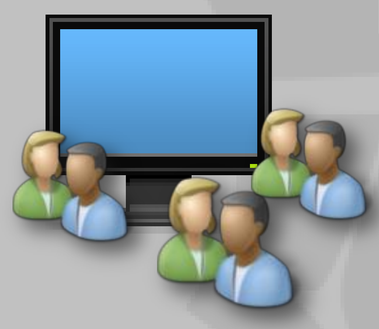
- Projectome Toolkit
- iRODS Data Grid
- Remote Visualisation Service

Projectome Environment

Storage
Processing
3D Stiching
Sharing



Visualization
Annotation (under dev.)
Data Mining & Clustering (under dev.)
Knowledge extraction (under dev.)
Features Extraction



Projectome Scientists

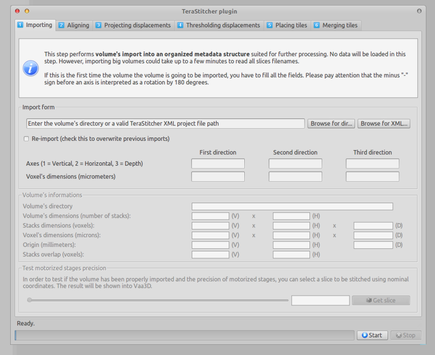
Scientists worldwide

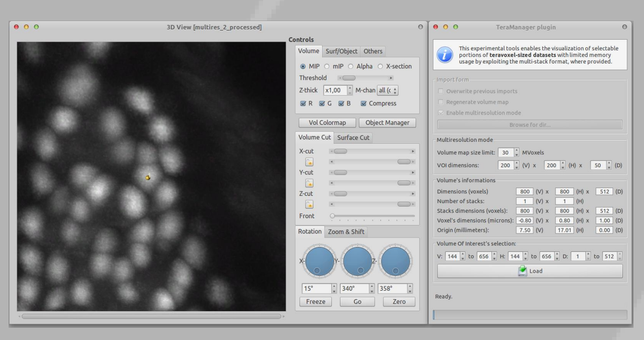
TeraStitcher
(Vaa3D plugin)

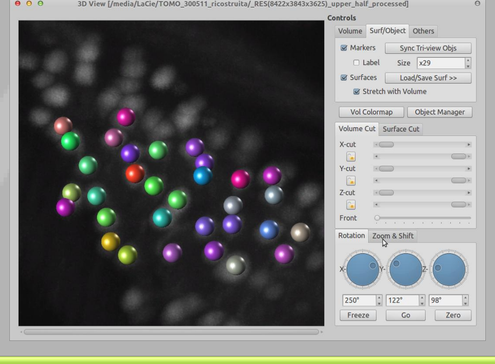
TeraManager
(Vaa3D plugin)

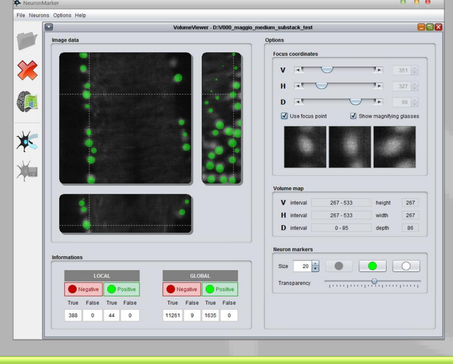
Vaa3D

NeuronMarker









3D Stitching

3D Visualization

Annotation, neuron tracing, brain registration

Proofreading of neuron detector

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