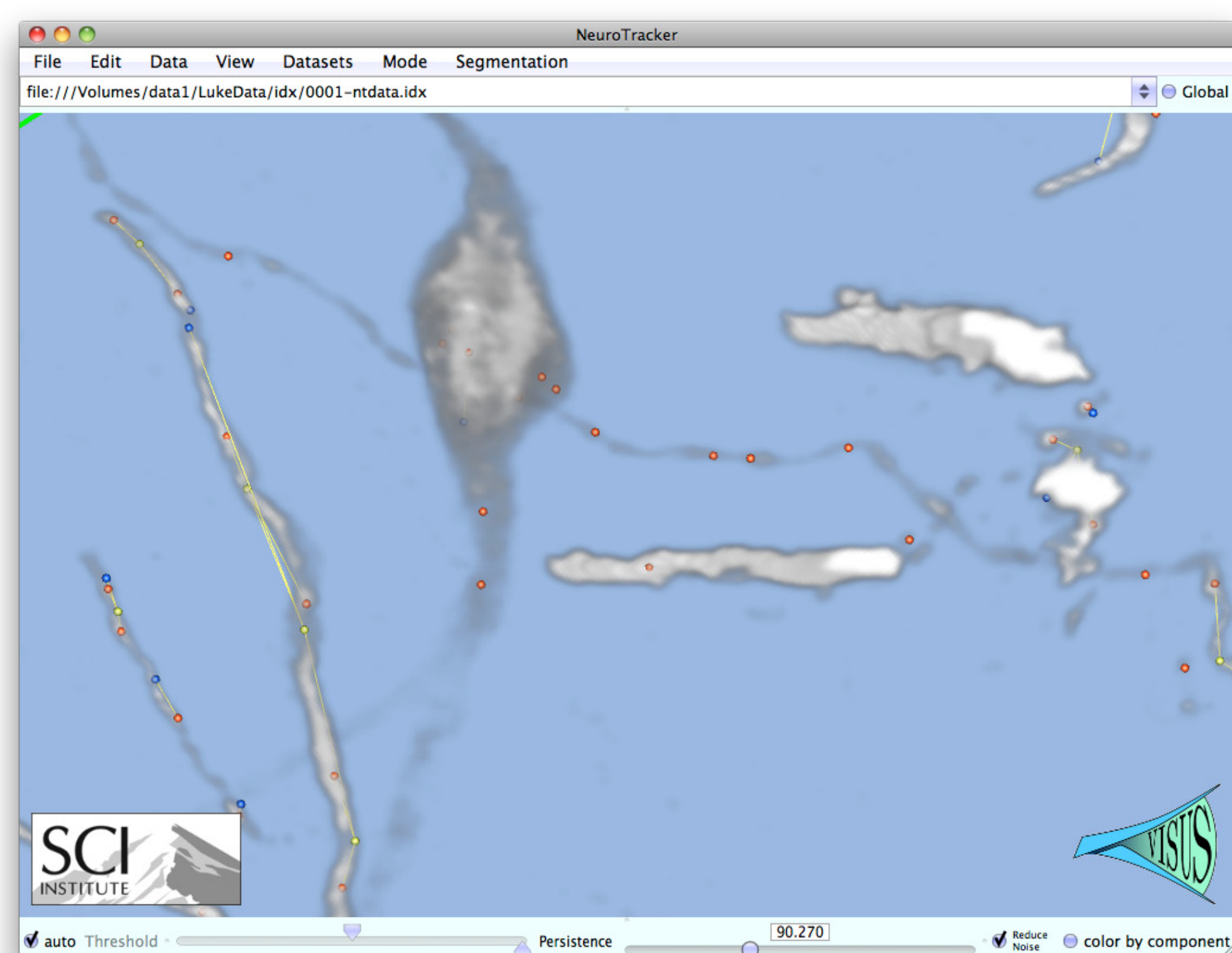# Long range axon tracing with NeuroTracker
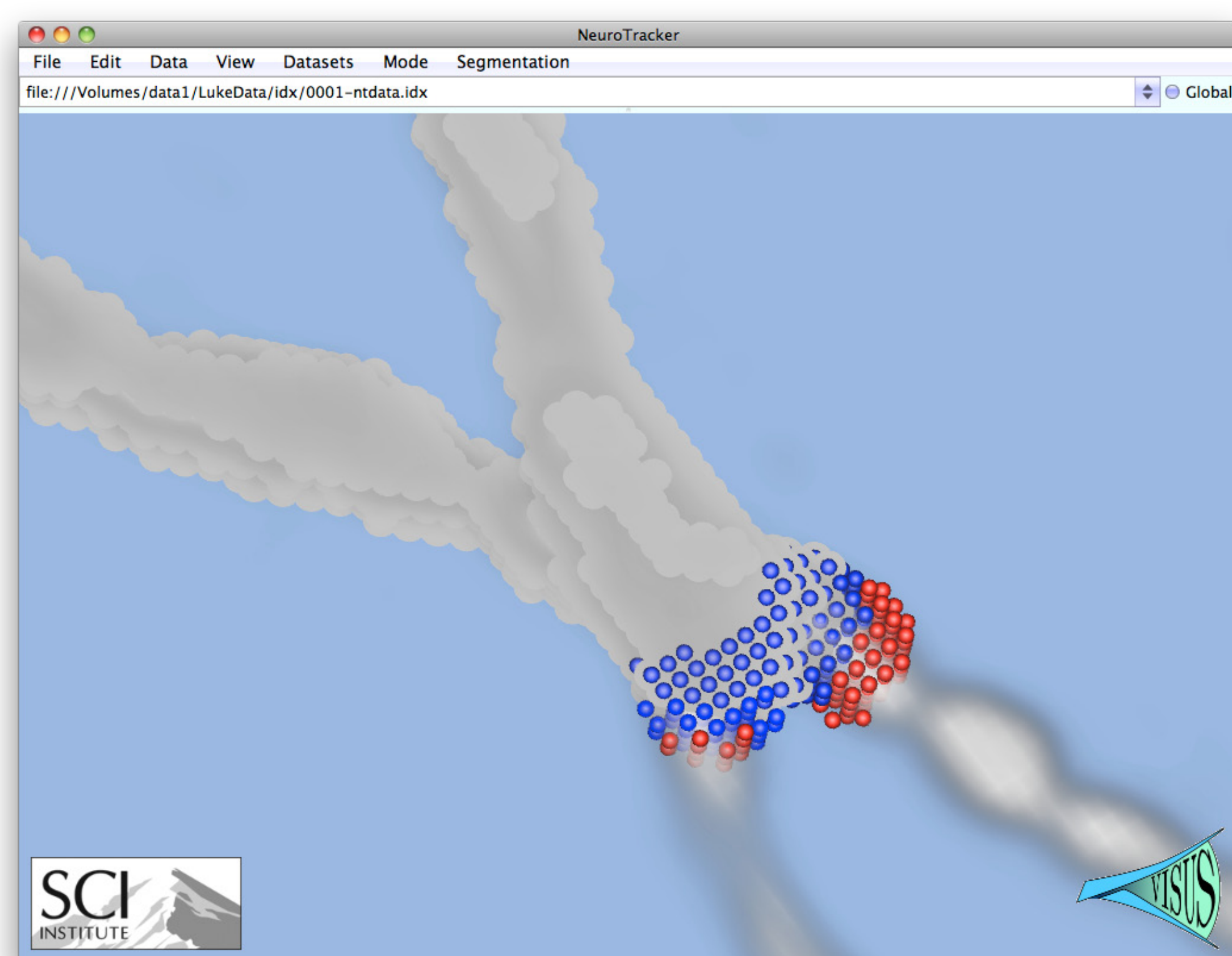
Cameron Christensen, Julie Korenberg, Tolga Tasdizen, Valerio Pascucci
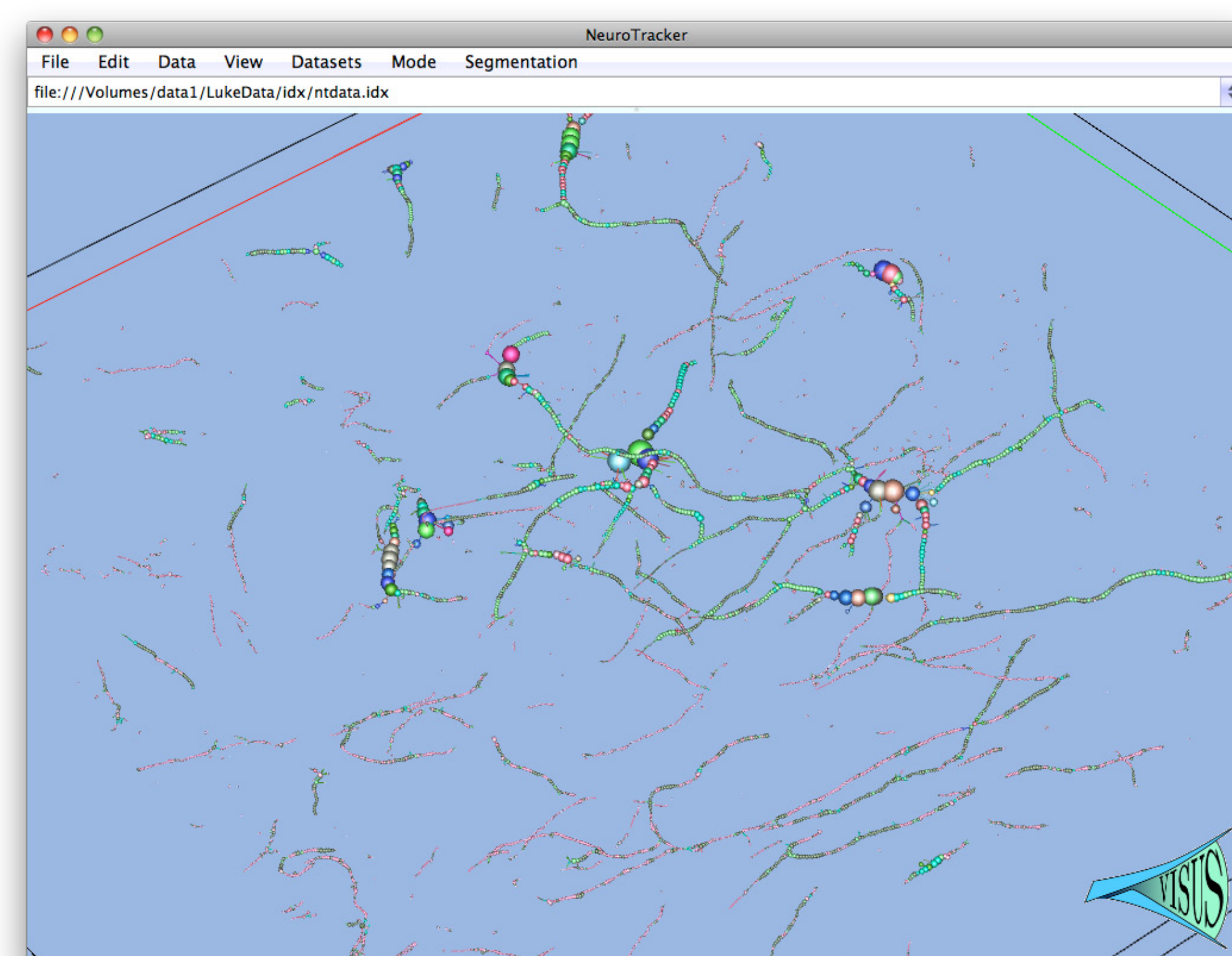
Data Analysis: High Resolution Axon Tracing based on multi-scale topological seeding and Voxel Scooping
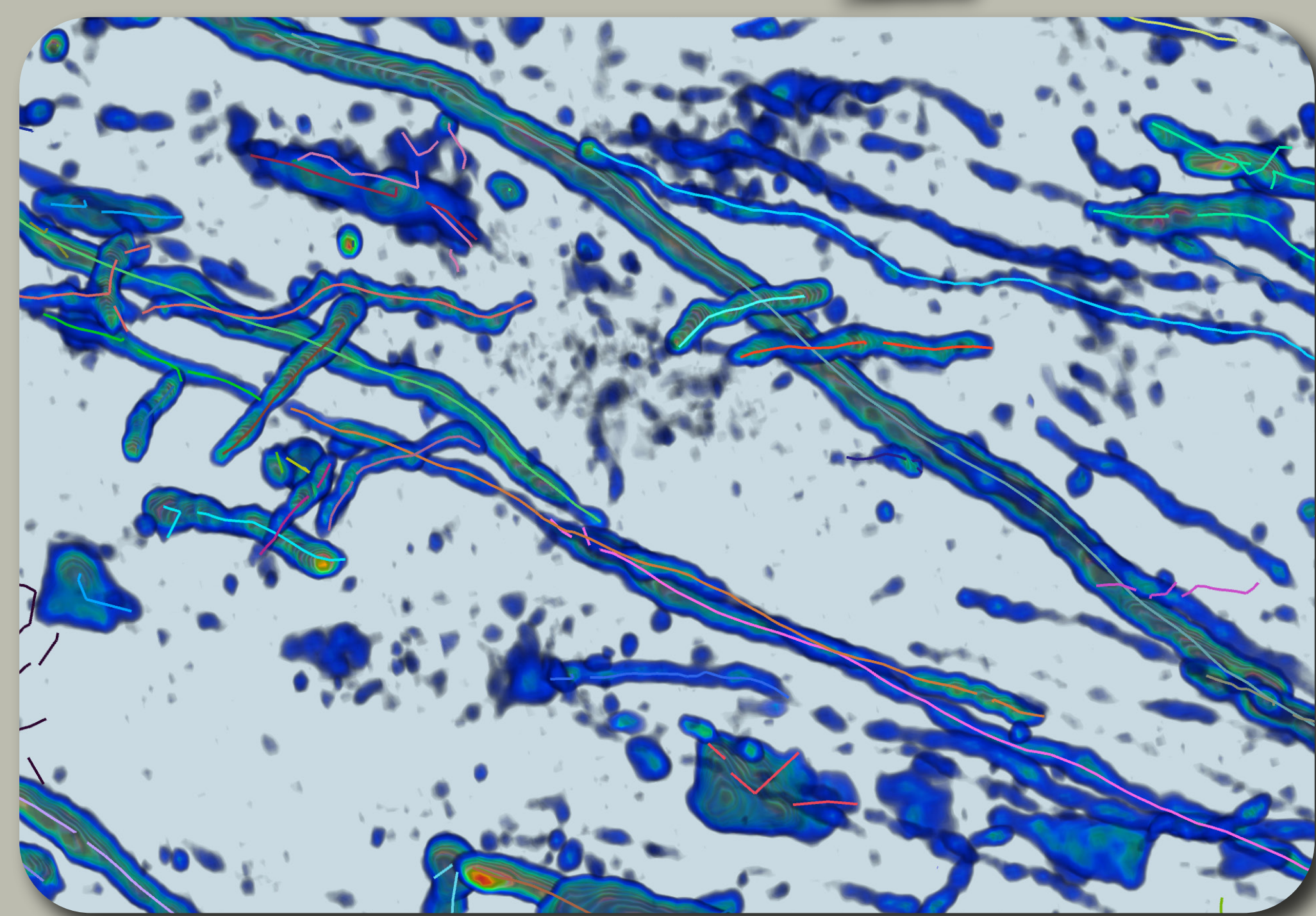

Topological seed detection

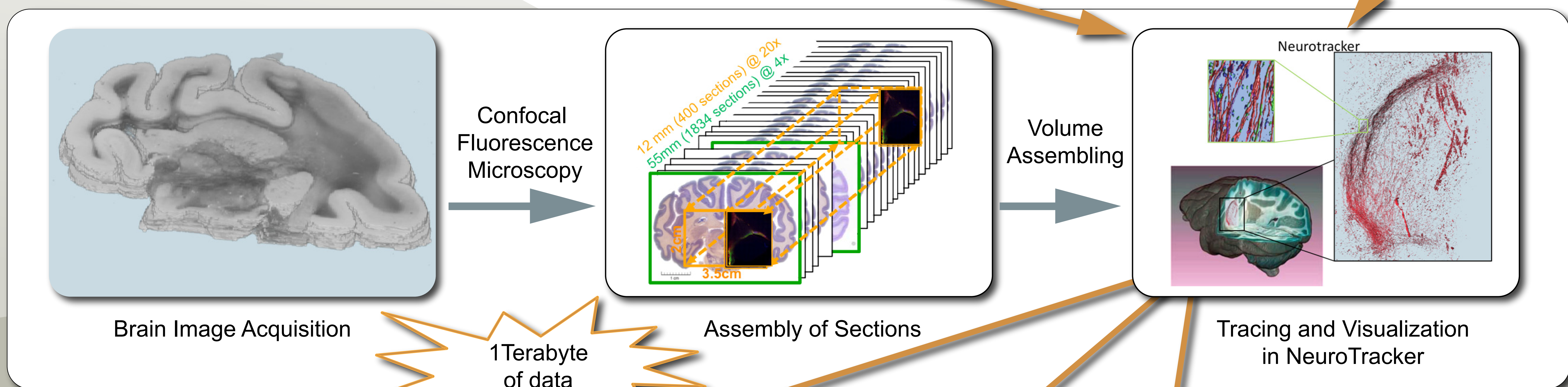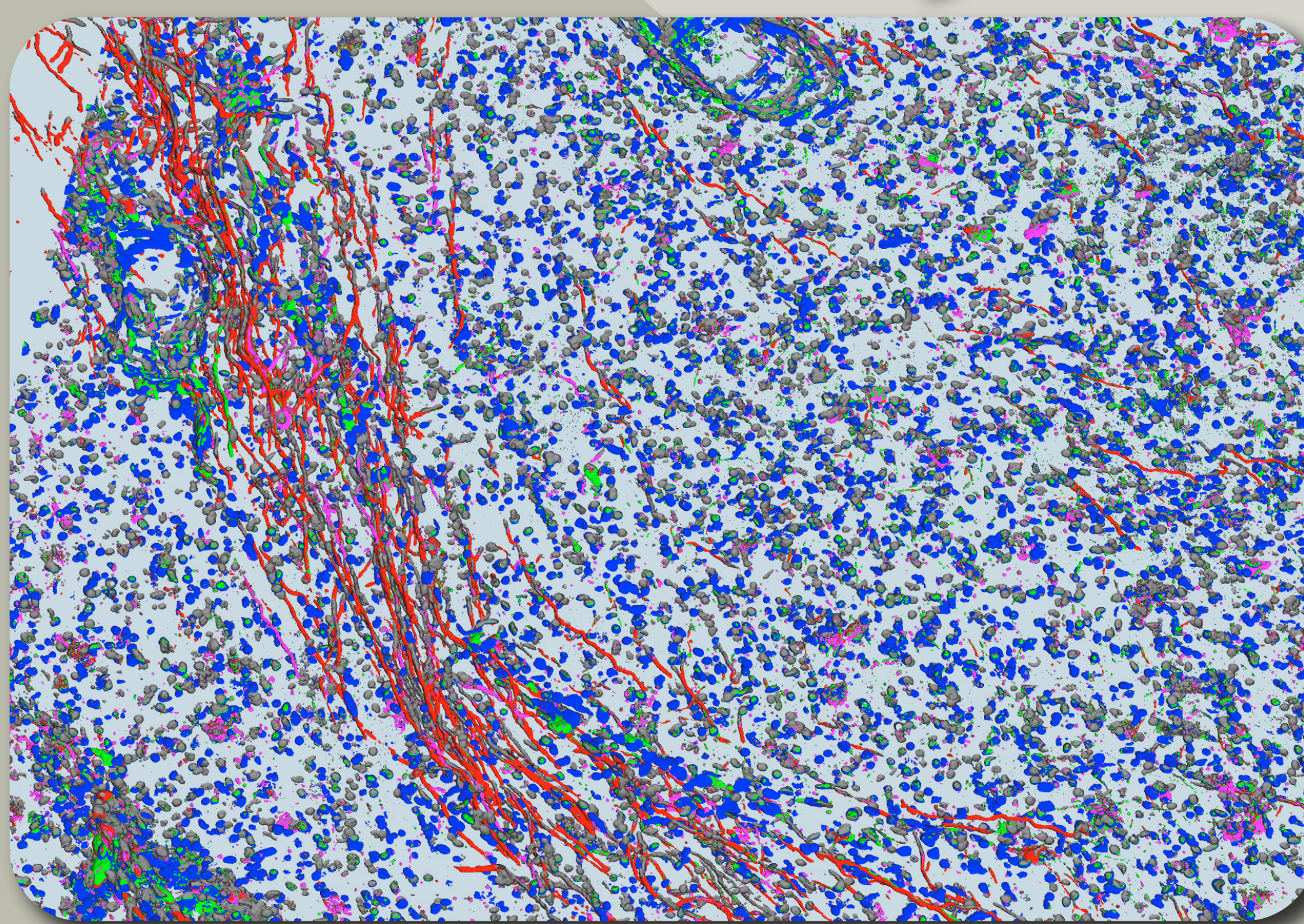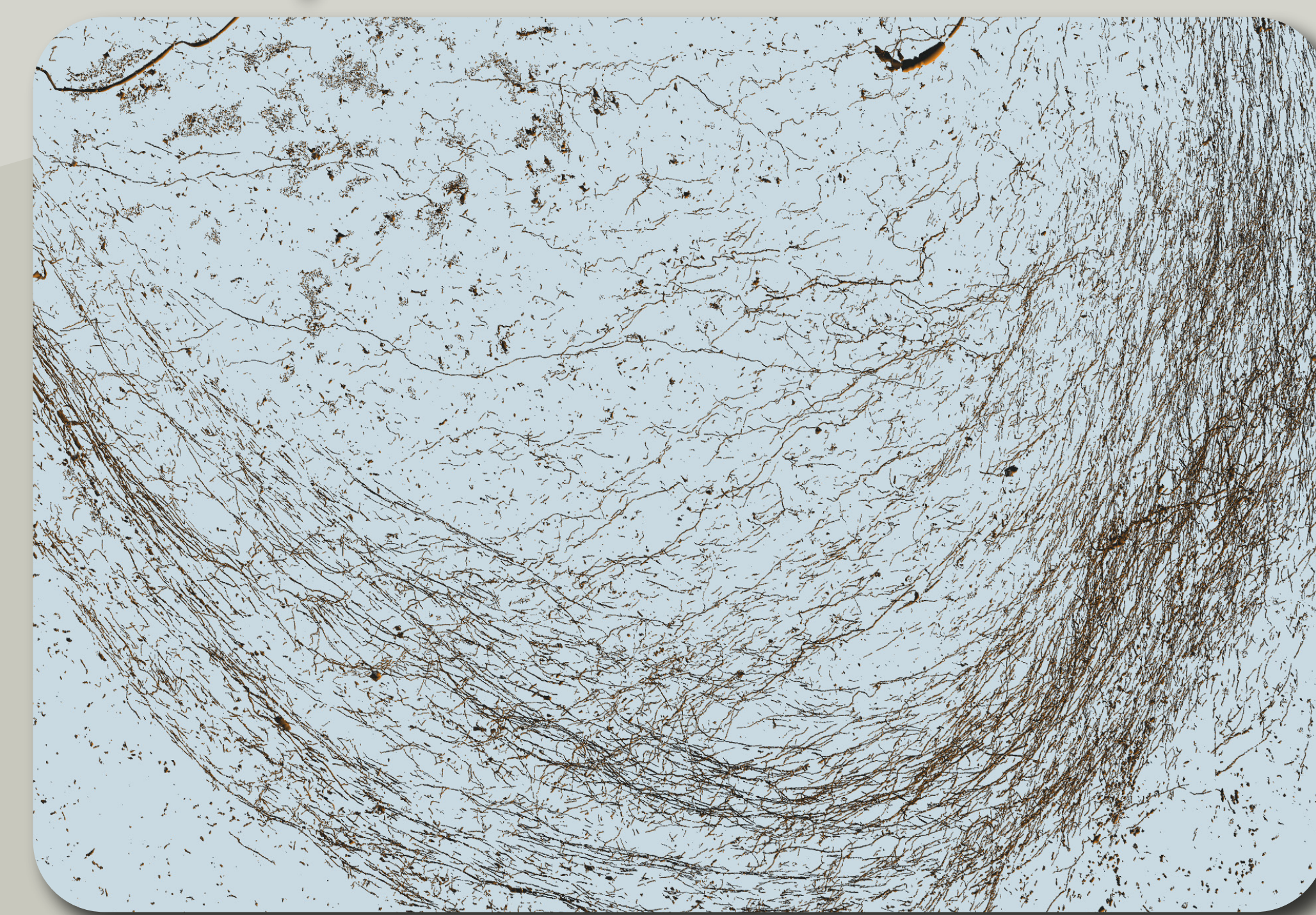Neuron tracing (close-up)

Neuron tracing (finished)

Data-Driven Brain Analysis Pipeline

Brain Image Acquisition

Confocal Fluorescence Microscopy

Assembly of Sections

1 Terabyte of data

Volume Assembling

Neurotracker

Tracing and Visualization in NeuroTracker

Volume Rendering with Axon Traces

Isosurface with four data channels

Axon Traces

Data Exploration: Multi-resolution data management and visualization based on ViSUS progressive algorithms