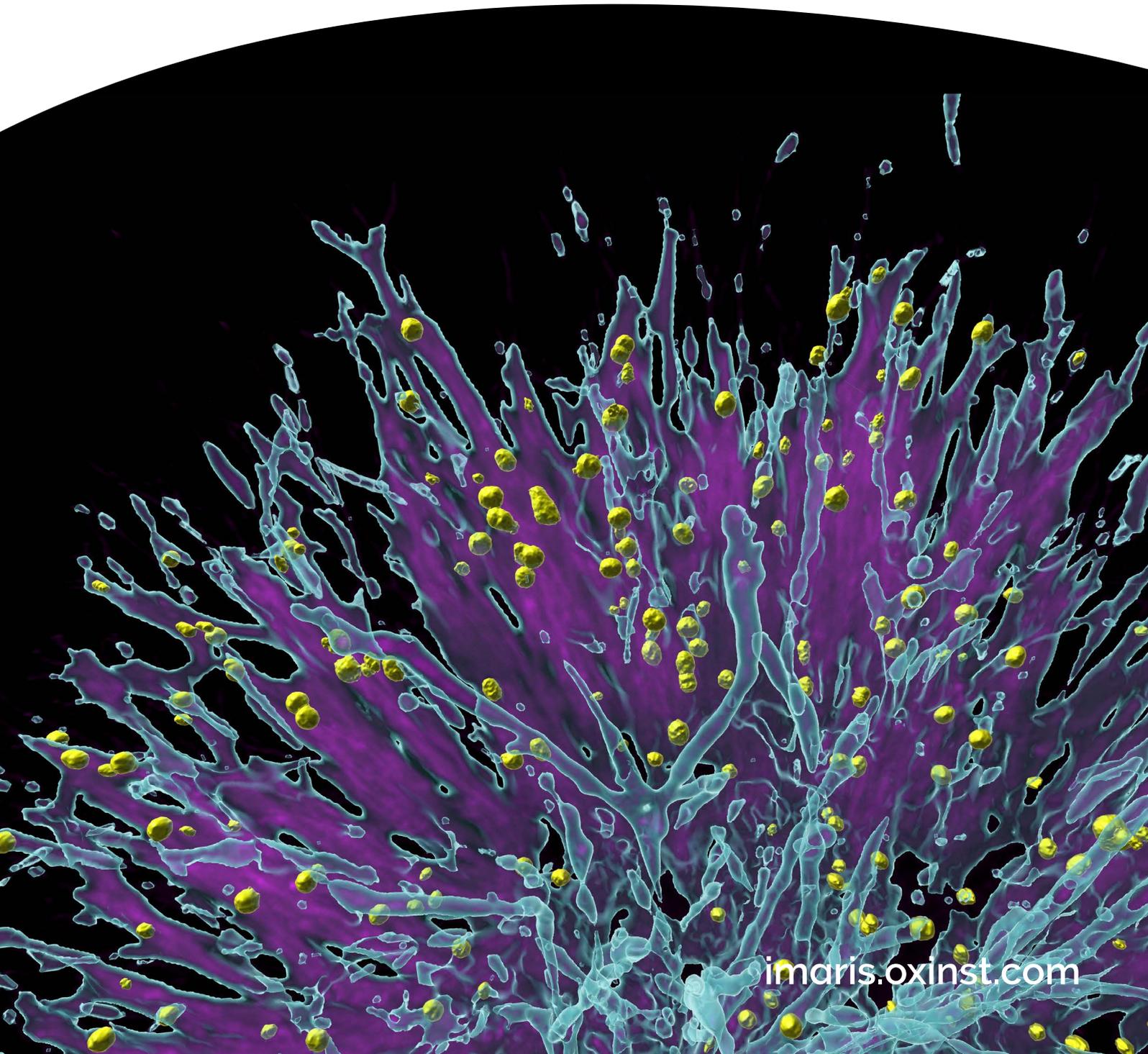


IMARIS 10.1

3D/4D Visualisation | AI Analysis
Stitching | Deconvolution



Raw Images To Scientific Insights

IMARIS Workflow

Imaris provides the full workflow for researchers to manage and analyse their microscopy image data from browsing images on different drives, through analysis and interpretation to various ways of sharing the results.

Browse

Use Imaris Arena to manage your microscopy images on local or network drives.

Visualise

Visualise your 2D/3D/4D images up to Terabytes in size in Imaris or Free Imaris Viewer.

Analyse + Classify

Get quantitative information with Imaris reporting 100s of statistics for individual objects and relative to each other.

Detect

Detect all structures of interest using powerful and easy to use AI powered Imaris analytical tools.

Preprocess + Decon

Use deconvolution and other image processing filters to improve your signal to noise ratio.

Batch

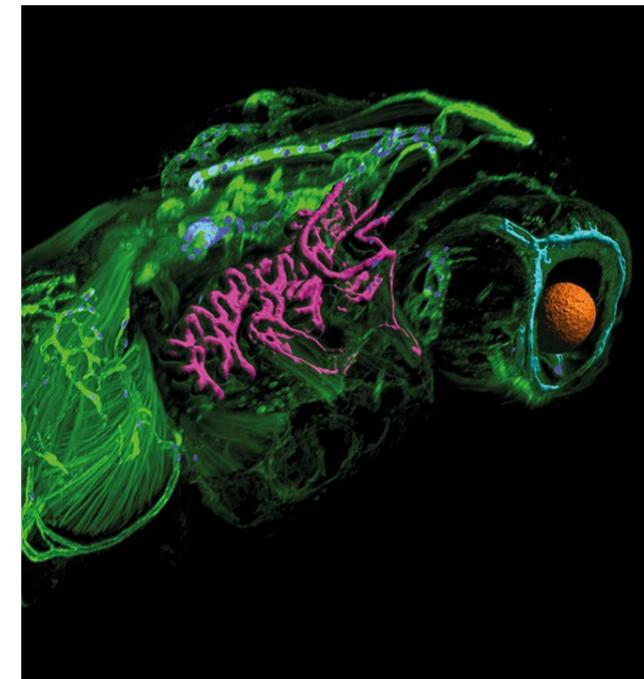
Analyse your images faster by creating a Batch processing pipeline which utilizes all tools of Imaris.

Interpret

Analyse, interpret and compare your data using built-in plots using up to five reported statistics.

Present

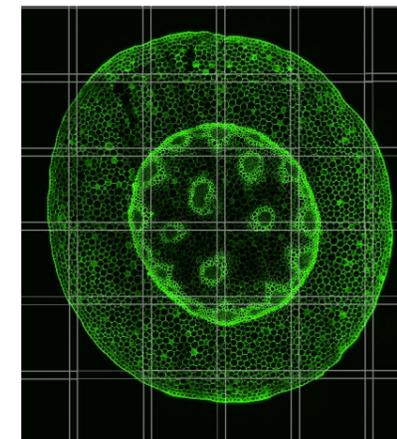
Create high resolution snapshots, videos, plots and export statistics.



Imaris

AI Powered Image Analysis and Visualisation

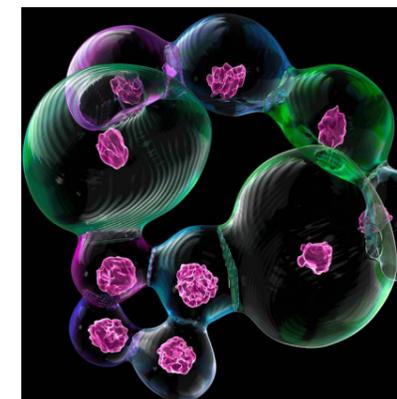
Over the last 30 years Imaris has continuously improved upon its visualisation technology for 3D/4D fluorescence images to accommodate ever increasing image sizes while introducing a range of analytical tools for cell biologists, neuroscientists and a wide array of other life science disciplines. To best serve the image analysis community Imaris integrated a trainable AI segmentation tool for challenging images, which is now available for all Imaris users. Easy and smooth image based training and real-time predictions preview are also available in the batch mode for automated analysis workflows.



Imaris Stitcher

Big Data Capable Image Stitching

Imaris Stitcher is the newest member of the Imaris family and is a stand-alone application made for precise alignment and fusing of multiple microscopy image tiles into one 2D, 3D or 4D volume. Stitch multiple image tiles in XYZ while also correcting for a common acquisition condition: camera rotation relative to the microscope stage. Imaris Stitcher's interface and workflow allow you to easily align and stitch image tiles to export images terabytes in size.



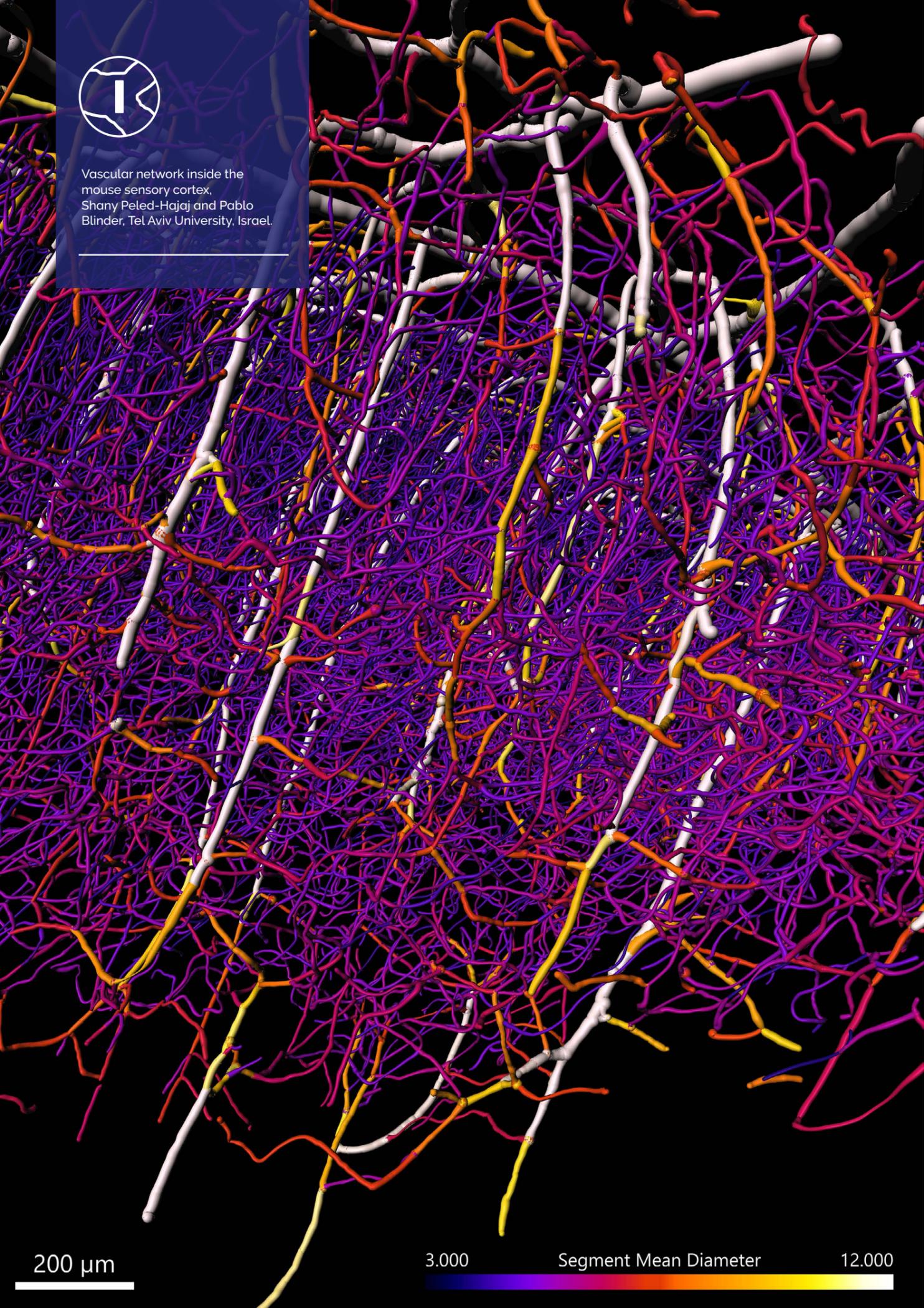
Imaris Viewer

Share Your Data With The World

The Imaris Viewer allows you to open raw images as well as those analyzed within Imaris. The free and portable Imaris Viewer ensures the interactive 3D rendering of your images matching the original Imaris performance and quality. Sharing your data and presenting it on conferences was never easier.



Vascular network inside the mouse sensory cortex,
Shany Peled-Hajaj and Pablo Blinder, Tel Aviv University, Israel.



200 μm

3.000

Segment Mean Diameter

12.000

Measurement Pro

Quantitative analysis of extremely large and complex images

Imaris MeasurementPro adds geometric and intensity measurement capabilities to Imaris.

Interactively render massive Surfaces & millions of Spots

Create Surfaces & millions of Spots from extremely large images

Classify & label Spots and Surfaces using AI Classifier or interactive filters

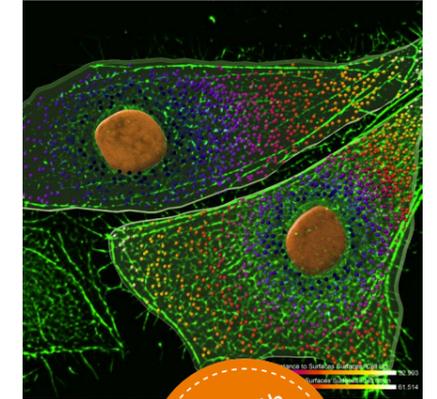
Measure intensity on a per channel basis

Color-code detected objects based on any calculated parameter and intuitively select objects to extract key parameters

Calculate the distance and the overlap between objects

Analyze interactions between biological objects (attraction or repulsion)

Build and measure 3D objects based on 2D contours



Now With AI Classifier

Imaris Track Lineage

Explore motion and detect cell divisions

ImarisTrackLineage is the cutting-edge scientific solution for 3D and 4D object tracking

Automatically track objects in 2D or 3D + time

Choose from the multiple tracking algorithms

Handle thousands of objects per time point

Handle thousands of time points

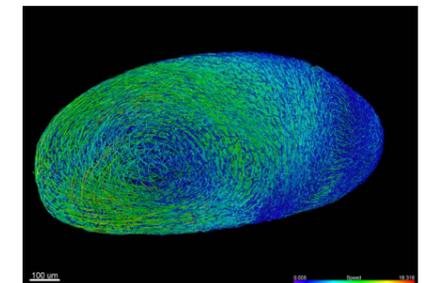
Interactively edit, create and revise tracks and tracked objects

Report speed, displacement, intensity, size etc.

Determine cell cycle duration & generation, while displaying a lineage tree

Automatically correct translational and rotational drift using Reference Frame

Synchronize measurements to Events in your timelapse



Imaris Coloc

Isolate, visualize and quantify colocalized regions

ImarisColoc assesses the distribution of one label relative to another.

Multiple colocalization selection methods including an automatic mode based on an established algorithm

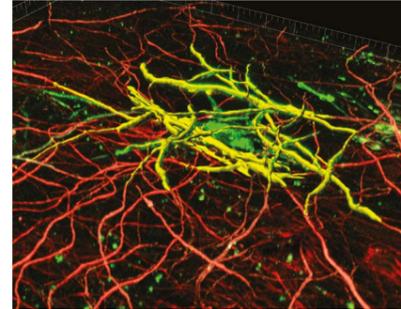
Obtain statistics in real time

Present data as a new 3D or 4D color channel

Expand or narrow the computed histogram region

Perform analysis on specific ROIs

Co-localization of entire time series analyzed in fewer steps



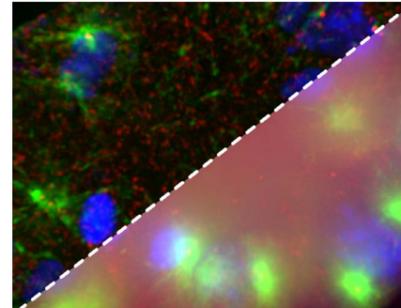
Imaris ClearView

GPU-Accelerated Deconvolution

Imaris ClearView includes integrated deconvolution algorithms.

Optimized for GPU processing on NVidia and AMD boards

Available for both Mac and PC computers



Imaris XT

Expanding horizons through customization

ImarisXT is an API that enables programmers to add functions and transfer data to and from Imapris.

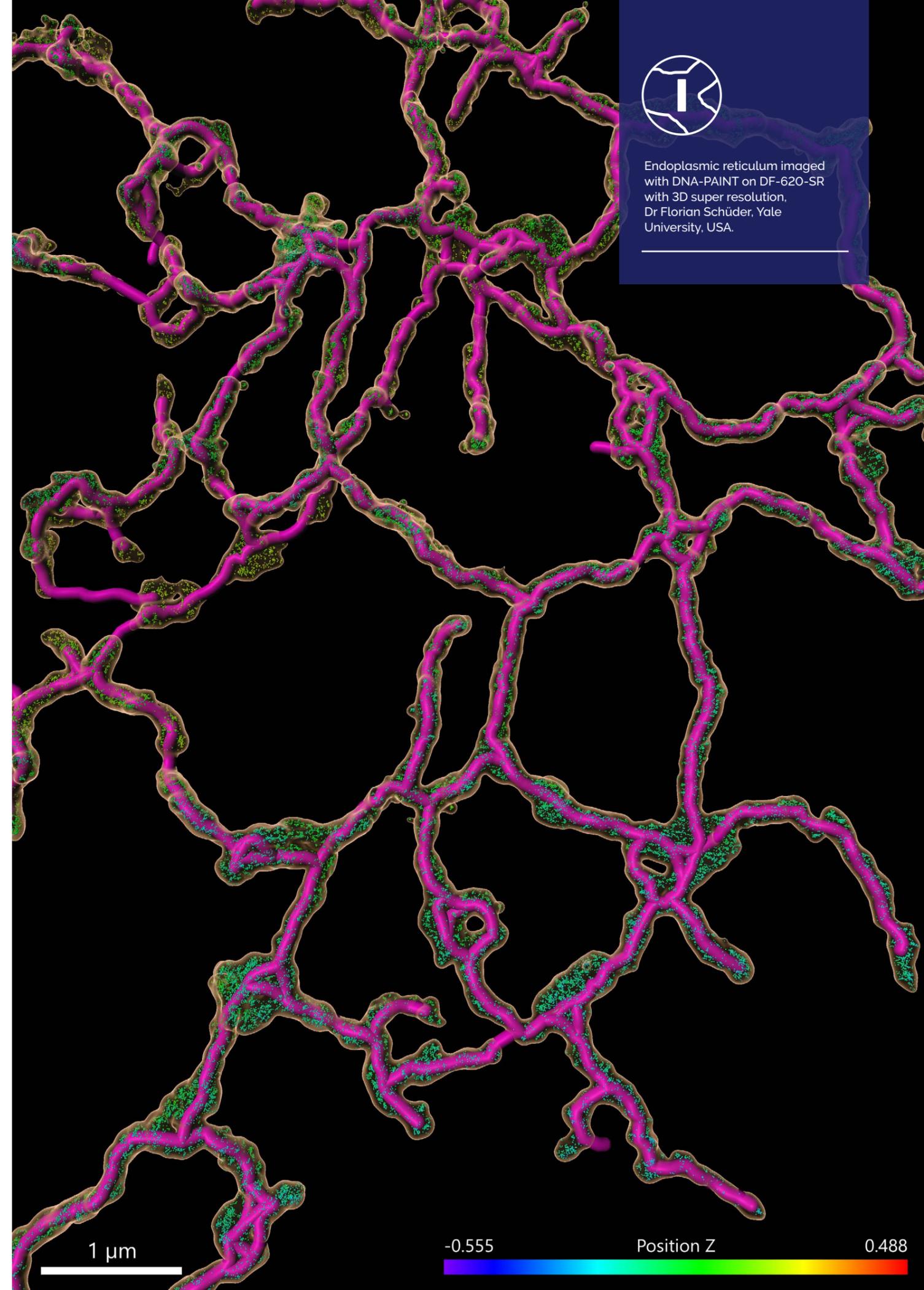
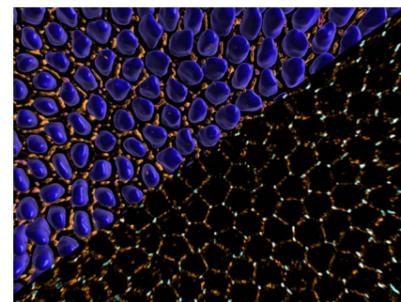
Extend Imapris functionality with your own plugin (XTension)

Two-way data exchange between Imapris and Matlab, Java and Python

Supported by the Imapris Open web platform (<https://imaris.oxinst.com/open/>)

Direct access to Fiji tools, including Labkit pixel classifier

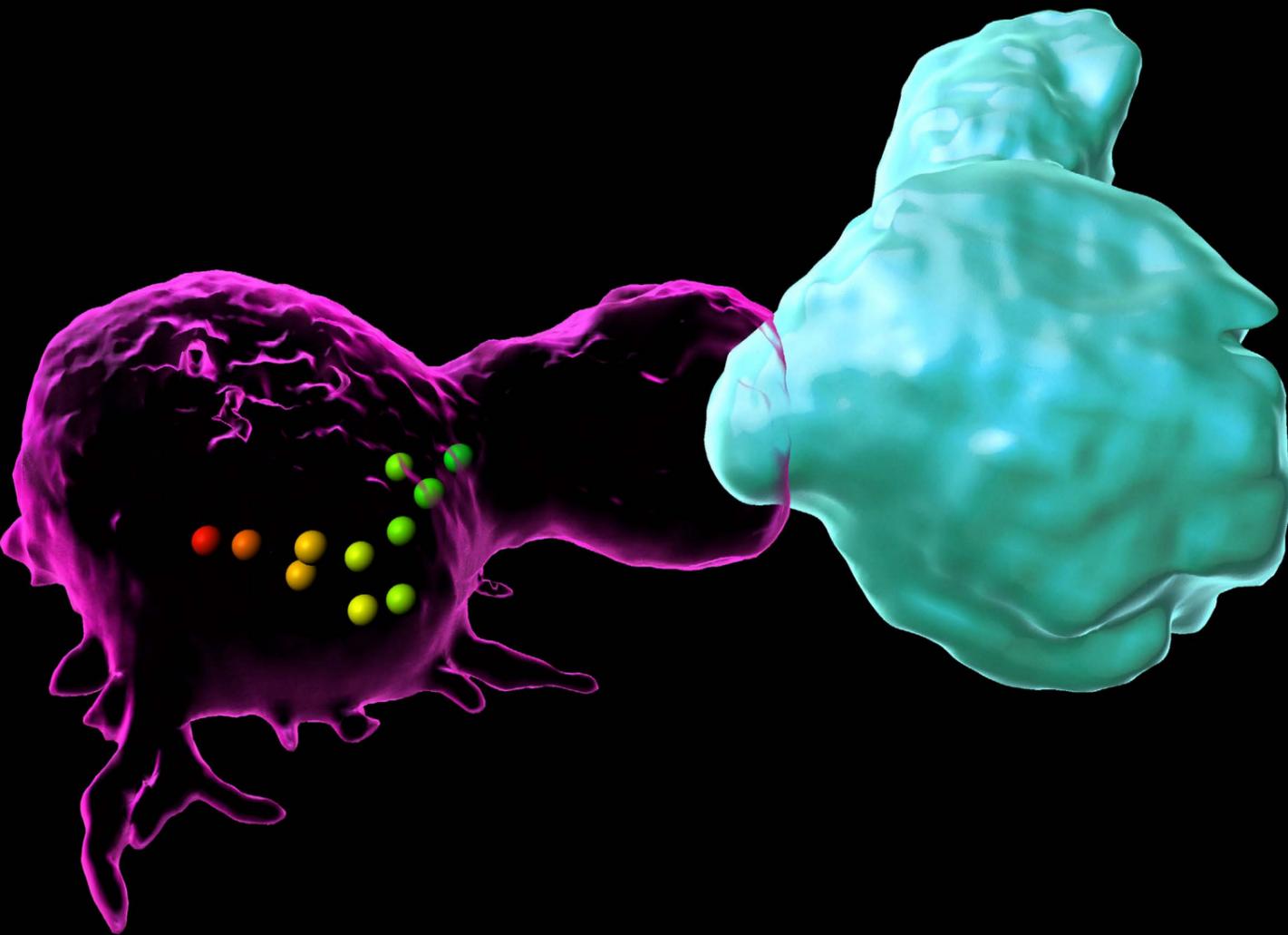
Free download of 70+ documented XTensions



Endoplasmic reticulum imaged with DNA-PAINT on DF-620-SR with 3D super resolution, Dr Florian Schüder, Yale University, USA.



Killer T-cell attacking cancer cell, Dr. Alex Ritter, Cambridge University, UK.



5 μ m

Shortest Distance to Surfaces Surfaces=Cancer cell
-2.117 15.948

Filament Tracer

Trace in 3D using AI-Powered algorithms

FilamentTracer detects neurons, vessels and filamentous cellular components.

Automatic 3D tracing available for bigger images with faster calculations **NEW**

AI-powered detection of seed points for filament tracing **NEW**

Detection, premier visualization and morphological characteristics of dendritic spines and somas

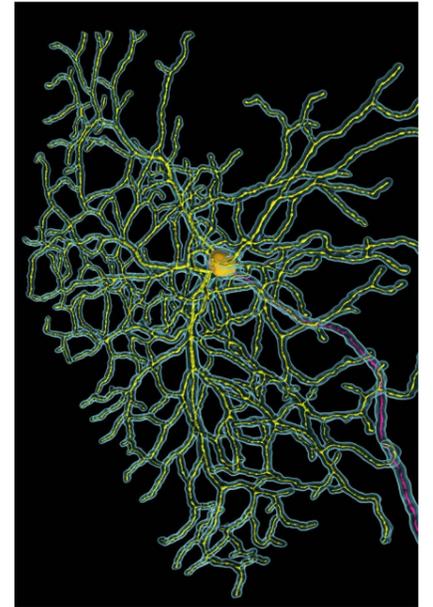
Network tracing algorithm for vasculature and cellular components **NEW**

Multi-scale filament detection to handle dendrites or vessels that significantly vary in diameter **NEW**

Curation of tracing results in dense networks with Imaris Torch™ and slice-based editing

Statistics such as soma volume, branch length, diameter, area, volume, spine density, filament topology and more

Tracking and detection of temporal changes in shape and position (with ImarisTrackLineage)



Imaris Cell

Making sense of your cells' relationships

ImarisCell allows analysis of cell groups and individual cells and their components on a per cell basis.

Examine relationships between cells and cellular components within a cell

Utilize biologically meaningful image analysis units (cells, nuclei and vesicles)

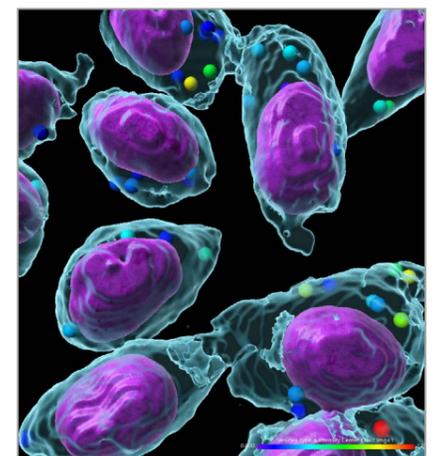
Detect cells based on cytoplasm or plasma membrane staining (new cell detection algorithm when only membrane labeling is available)

Detect and classify multiple populations of vesicular objects

Examine the behavior of cells in 2D to 4D data sets

Measure mechanical and structural cell functions involved in cell-to-cell communication

Save time by utilizing an advanced, structured and intuitive creation wizard



Imaris Batch

The Ultimate Imaris productivity tool

Imaris Batch allows for processing and analysis of multiple 2D/3D + time images in batch mode.

Save valuable time by batch processing/analysis – apply an analysis protocol to large groups of images automatically

Use AI Segmentation protocol in Batch

NEW

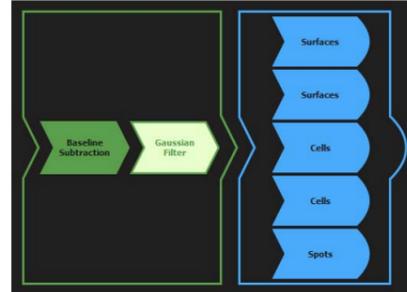
Interactively define the image analysis protocol which will be applied to "n" images

Seamlessly integrated into the Imaris workflow including AI classification

Unified pipeline of Image Processing into Object Detection

Run batch jobs for Spots, Surfaces, Cells and Filaments

Optimize the usage of Imaris licenses by running batch jobs autonomously when computing resources are less busy (e.g. overnight)



Imaris Vantage

Created for scientific discovery

Imaris Vantage allows users to interpret their results using interactive multi-dimensional plots.

Select from: side-by-side one parameter plot, 2 parameter scatterplot and object gallery view & scatterplots

Box and Whisker Plots, 5-Number Summary

Compare two or more groups of images (control with test groups). Compare labeled classes with one another

Use calculated parameters to specify dimensions, color coding and scale

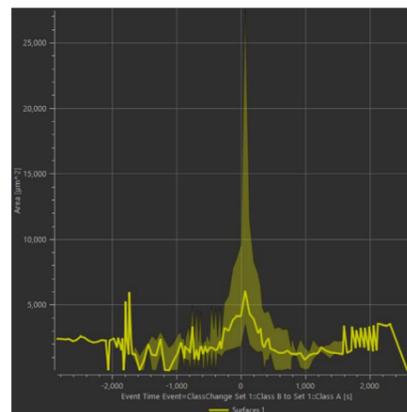
Identify trends and outliers

Get the results of: Wilcoxon, T-test, F-test and Kolmogorov-Smirnov and export the results for further statistical analysis

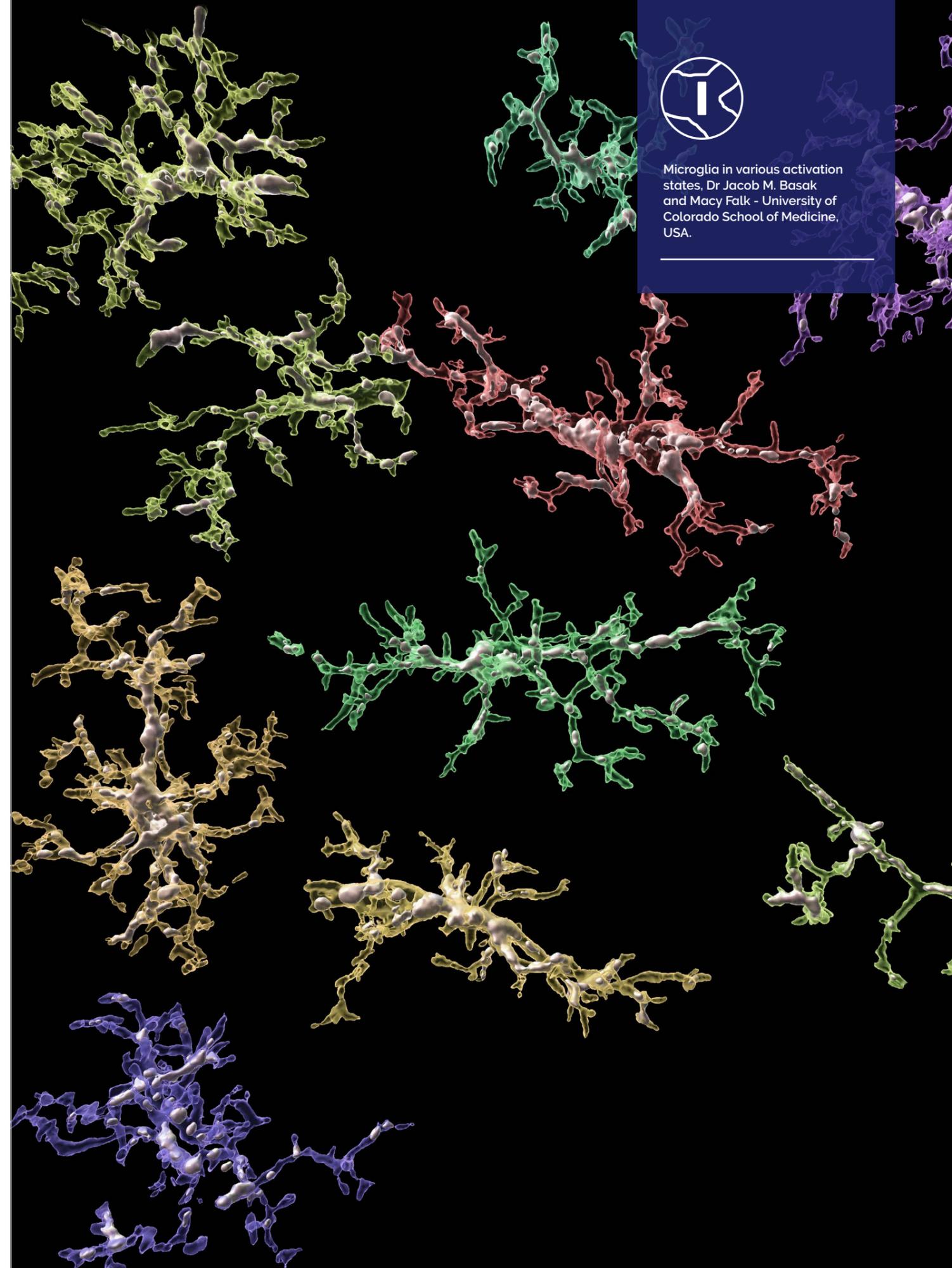
Create visually powerful data representations and at the same time facilitate a better understanding of intrinsically complex data

Spatial interactions plot and Time plot with Events

NEW



Microglia in various activation states, Dr Jacob M. Basak and Macy Falk - University of Colorado School of Medicine, USA.



20 µm

Overlapped Volume Ratio to Surfaces Surfaces=White CD 68
0.148  0.333

Imaris Maintenance Services

Much more than a maintenance contract

Find out more today at [imaris.com/imaris-maintenance](https://www.imaris.com/imaris-maintenance)

The Imaris team works with you to understand your research needs and define the perfect image analysis protocol as a solution. Our aim is to establish a true collaboration so you receive the greatest Imaris benefits. As your needs change, we listen carefully to your feedback and work to bring you innovative image visualization and analysis tools in new versions of Imaris and our family of products.

Our Maintenance Services Include:

- One to two releases per year
 - Phone, email and screen sharing / remote desktop options
- Image analysis & application support
 - Phone, email and screen sharing / remote desktop options
- Training
 - Custom video tutorials
 - Custom text / image tutorials
 - Priority access to Imaris User Group Meetings (attendance fee may be applicable)
 - Additional training and education via regular web seminars and video tutorials

*Conditions Apply

System Requirements and Licensing Types

 Windows 10 / 11

 Mac OS: 11.6 Big Sur / 12.5 Monterey / 13.0 Ventura

Permanent node-locked and floating license options are available.

For full list of supported hardware please visit [imaris.com/system-requirements](https://www.imaris.com/system-requirements)

Our regional headquarters are:

International

Andor Technology,
Springvale Business Park, 7
Millennium Way,
Belfast,
BT12 7AL,
Northern Ireland

Bitplane Inc.
300 Baker Avenue, Suite #150
Concord, MA 01742
U.S.A.

Visit [imaris.oxinst.com](https://www.imaris.oxinst.com)

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