

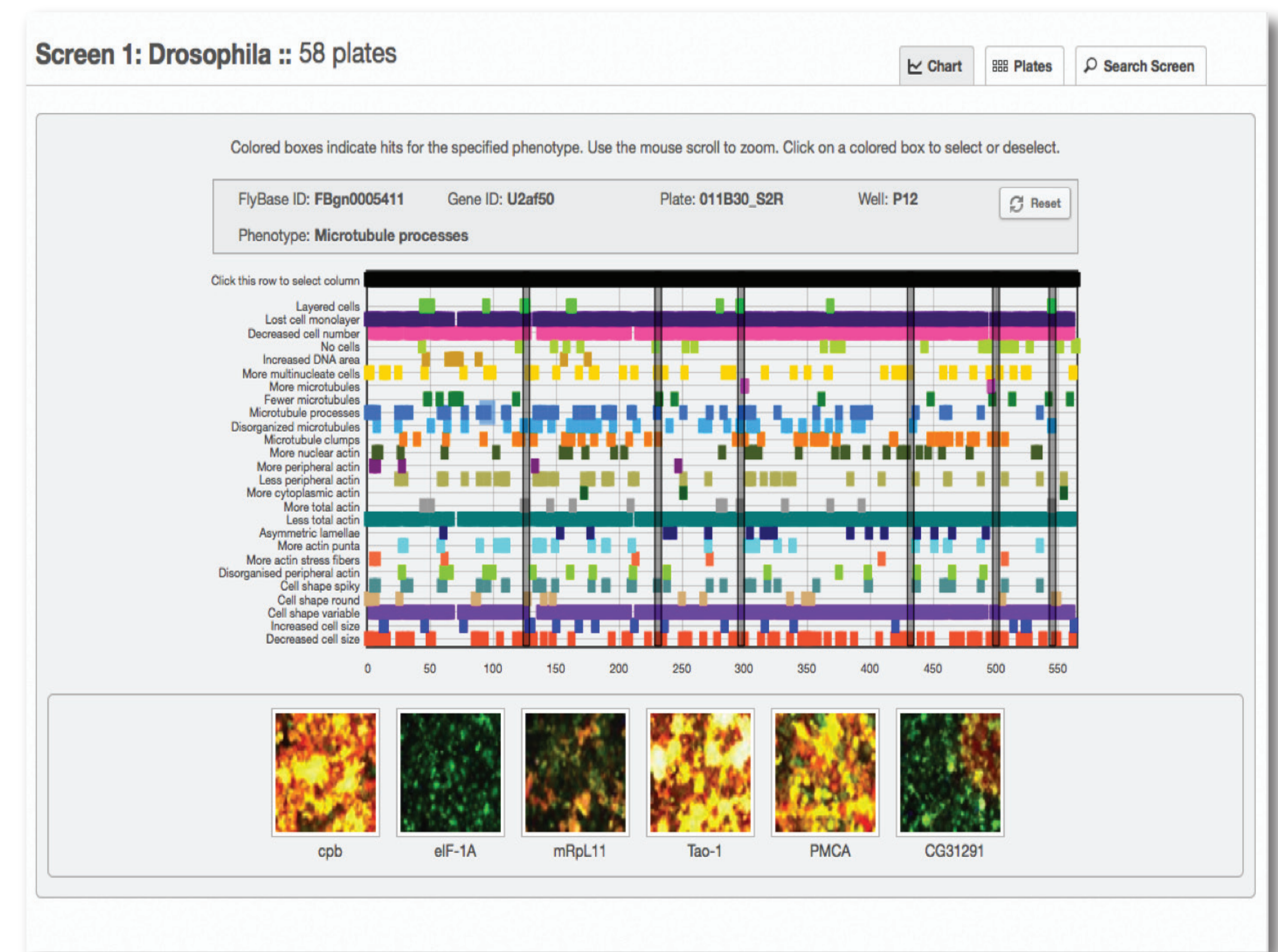
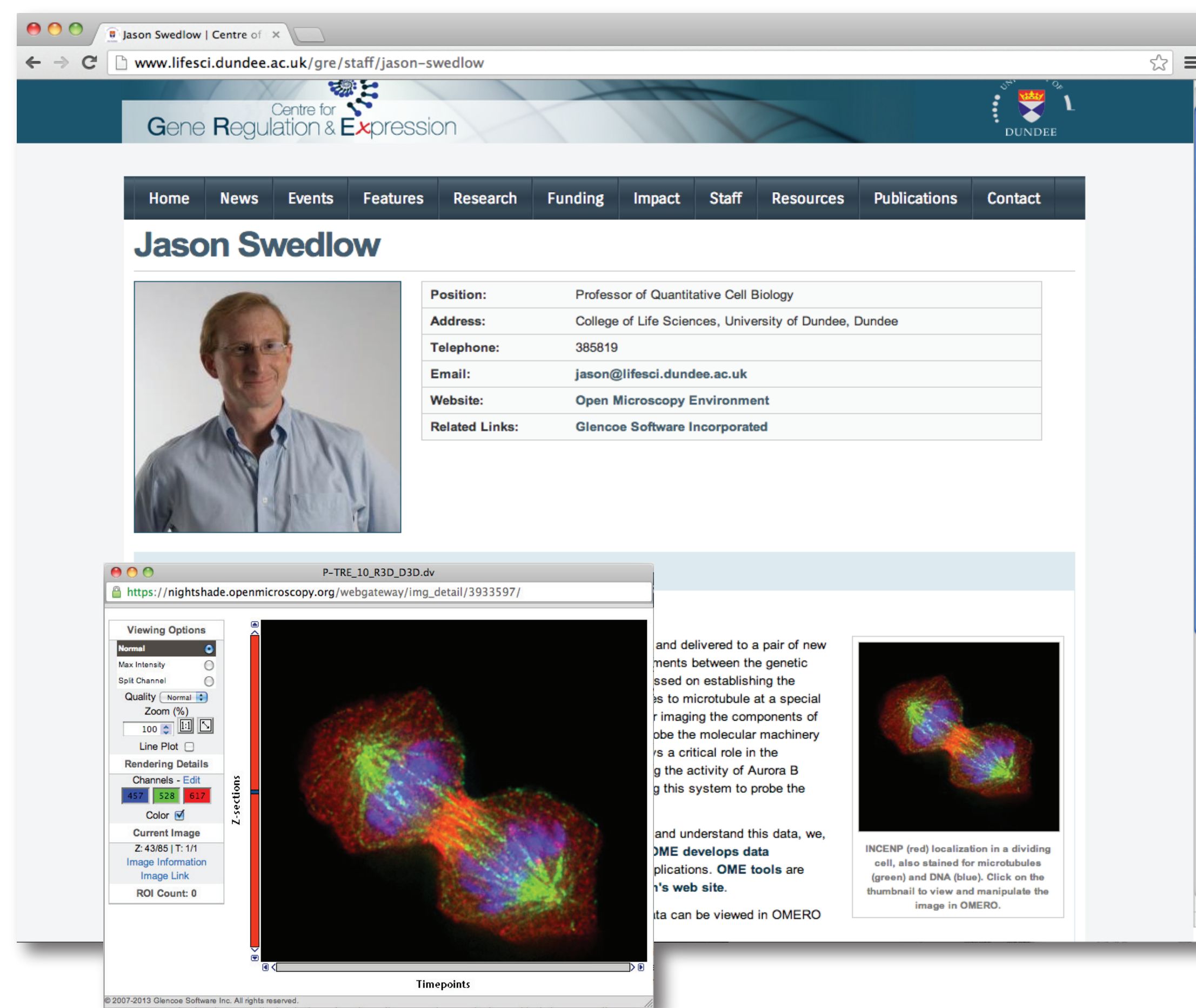
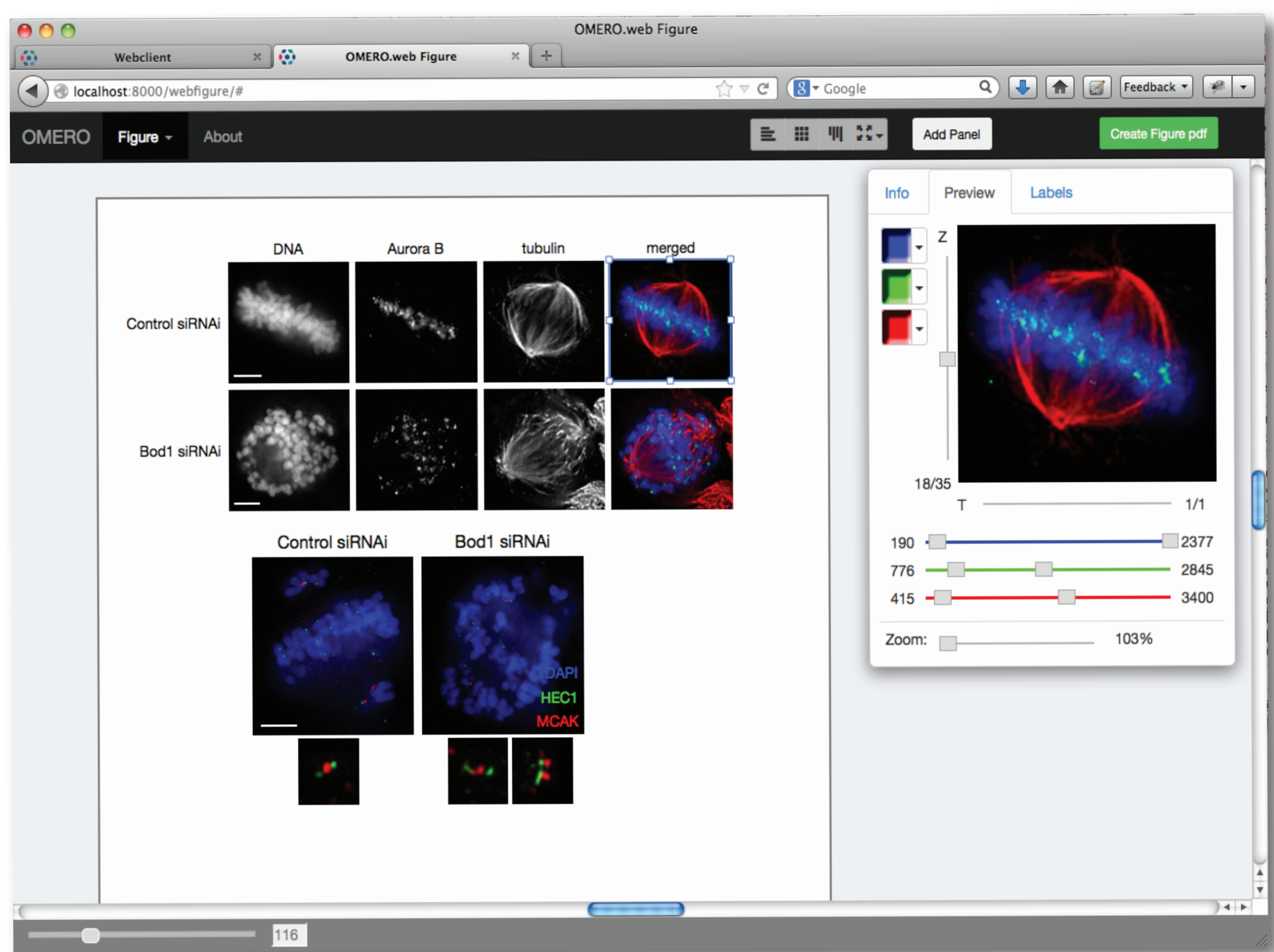
OME Bio-Formats & OMERO

Open Source Image Informatics for the Biological Sciences

The OME Consortium

Abstract OME produces open tools to support data visualization, management and analysis. With an initial focus on biological light microscopy, OME has now extended its coverage to high content screening (HCS), electron microscopy, scanning probe microscopy and digital pathology.

OME develops and releases the OME Data Model, the OME-TIFF file format, the Bio-Formats file format library and the OMERO platform. Bio-Formats provides a mechanism for accessing image data and metadata regardless of original file format by translating into the OME model standard, which can be stored as OME-TIFF. Accessing these data remotely, OMERO provides a data management facility, complete with custom clients for remote image viewing, processing and analysis, as well as a scripting facility for server-side data processing. OME products are used in a number of commercial products, and run the JCB DataViewer, the first publication system for original image data in the life sciences.



Build your own figures

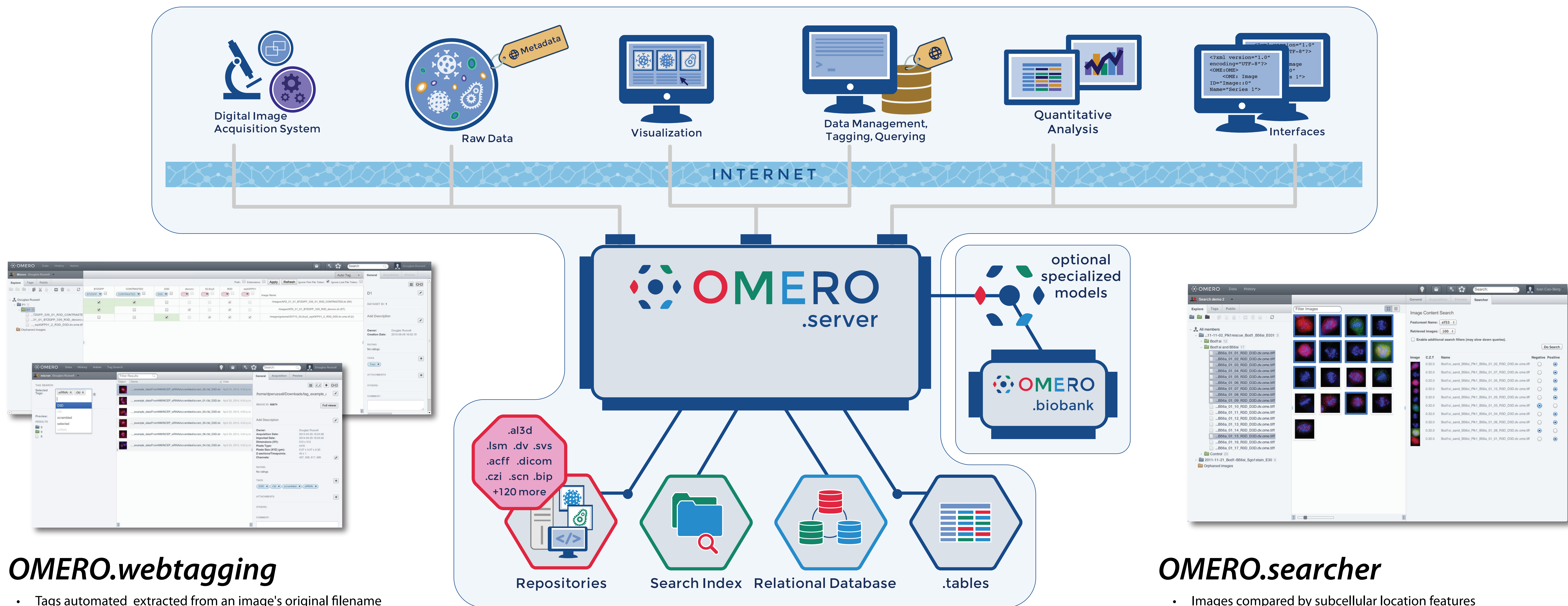
- Quickly create figures in your web browser
- Web Tool with UI similar to Adobe Illustrator

Embed in your web page

- Share images on your web page
- Image viewer allows audience interaction

Publish original image data

- JCB uses OMERO to publish original microscopy data
- High Content Screens include analysis results stored in OMERO

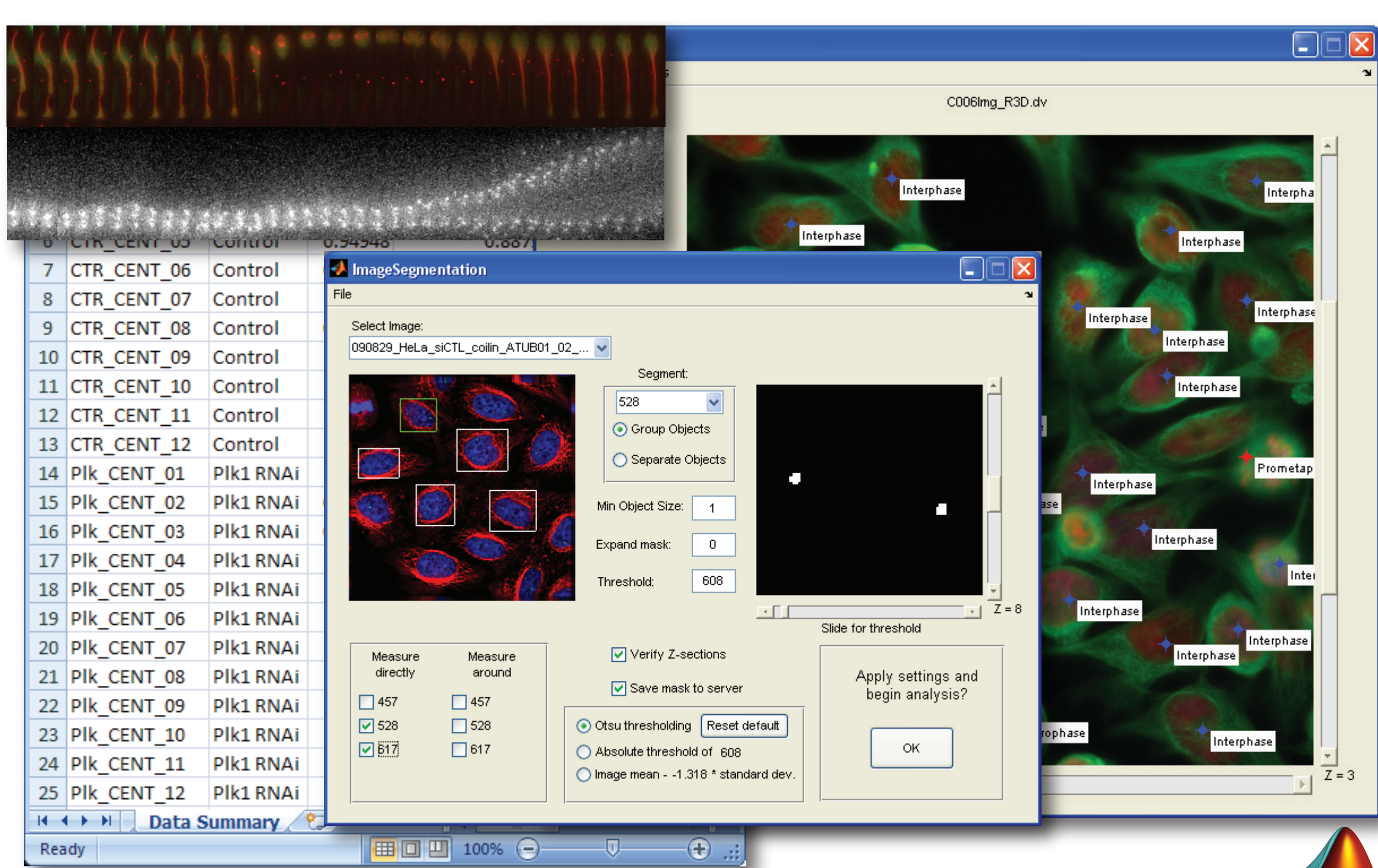


OMERO.webtagging

- Tags automated extracted from an image's original filename
- Allows intelligent searching
- Tag searcher designed to work like navigating a filesystem

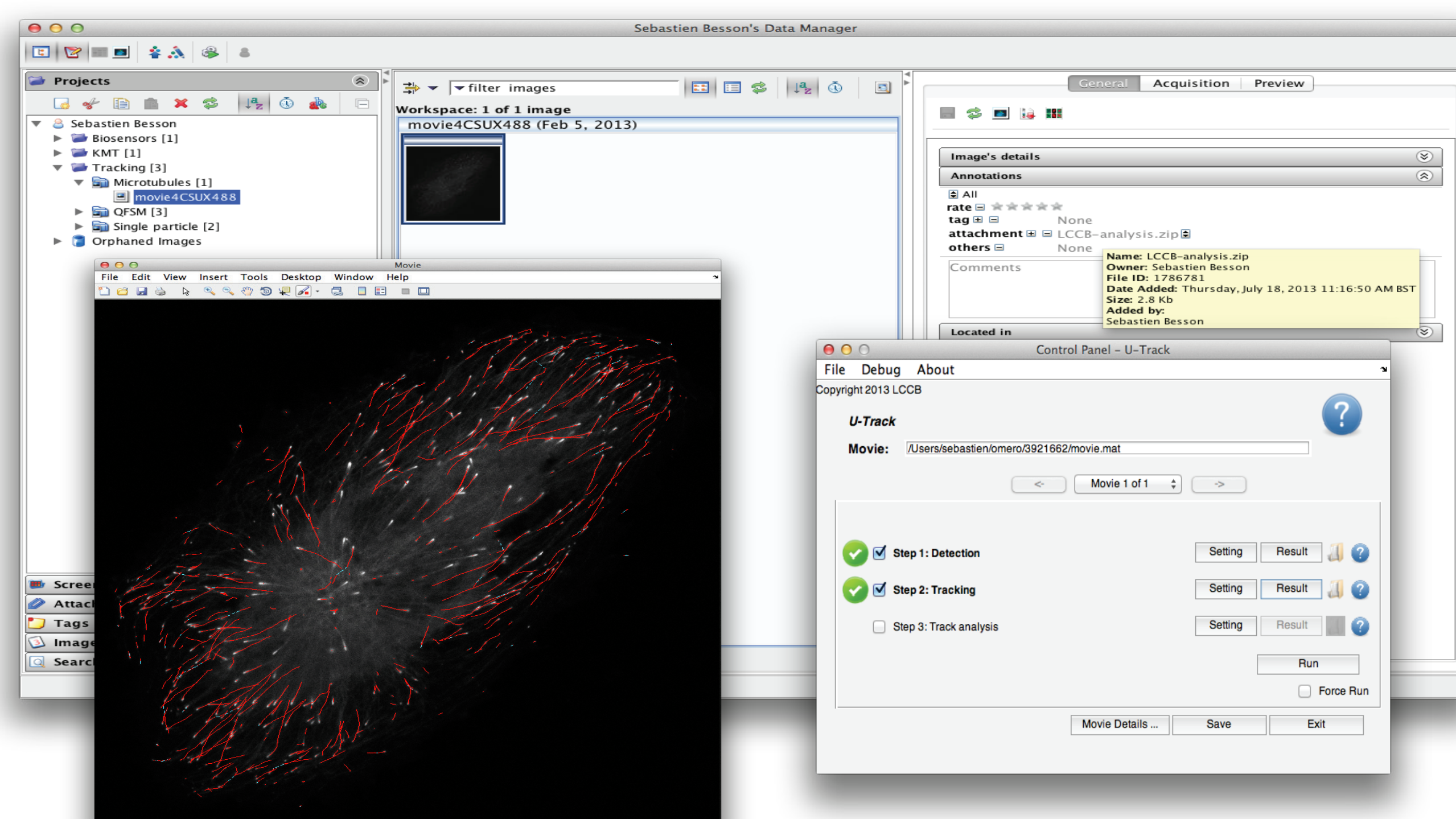
OMERO.searcher

- Images compared by subcellular location features
- Find images whose content, is similar to one or more query images
- Use positive and/or negative examples
- Allows the user to refine the search results by relevance feedback



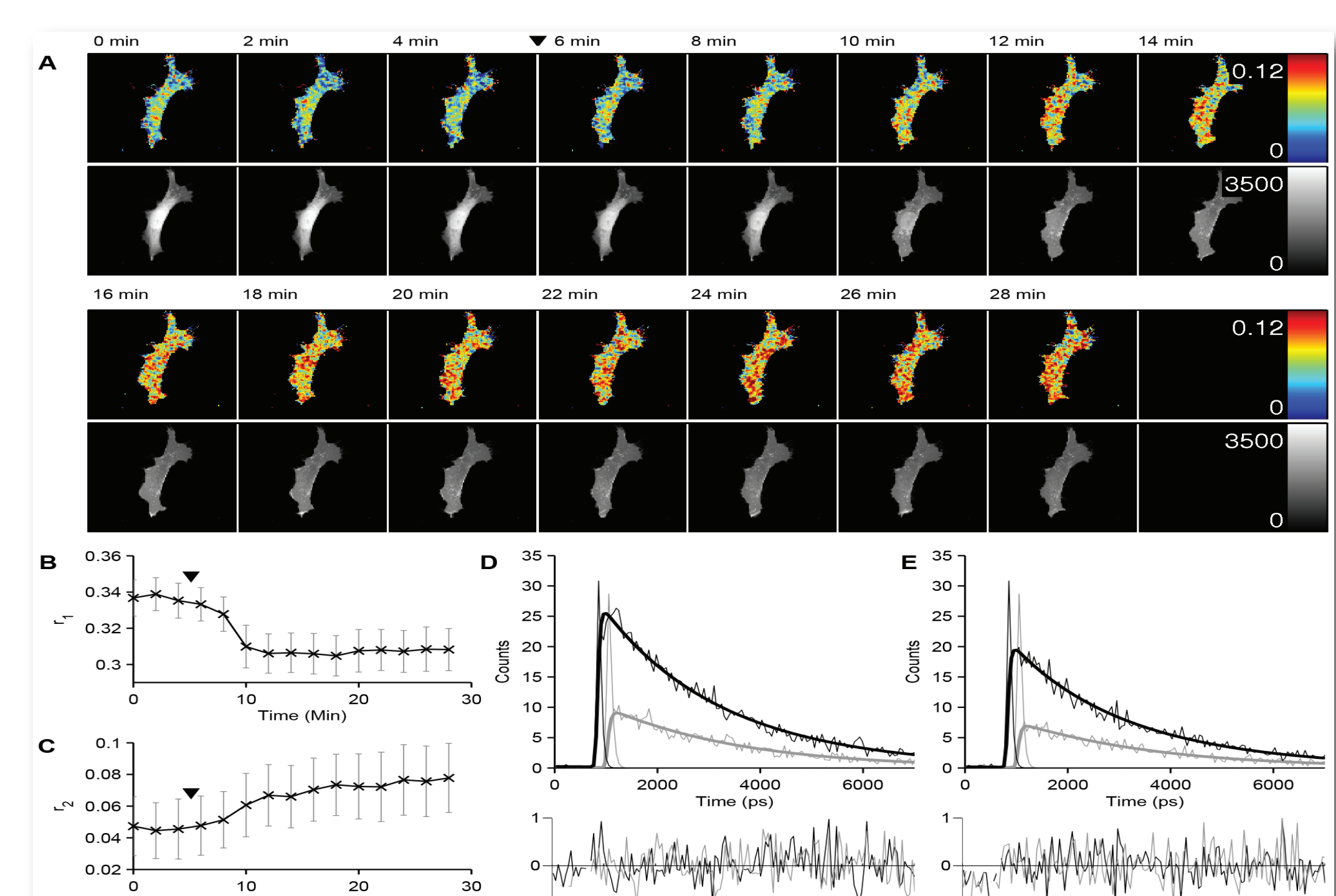
OMERO.mtools

- MATLAB tools for semi-automatic image analysis
- Measure intensities, count objects, time events, FRAP
- Output data to spread-sheet, organized by dataset
- Quickly draw ROIs, create kymographs



U-track: Follow points over time

- MATLAB tool developed at Harvard Medical School
- Track and analyze moving points in timelapse images
- Access your images in OMERO



FLIMfit: FLIM decay analysis

- MATLAB tool developed at Imperial College London
- Analyze FLIM decay data included screening data
- Load data from OMERO then save the results back to the server



OMERO is an open source development project and we welcome input, advice, comments, and help.

Go to <http://www.openmicroscopy.org/> and see what we are up to!



Open Microscopy Environment



The Open Microscopy Environment is a multi-site collaborative effort among academic laboratories and a number of commercial entities that produces open tools to support data management for biological light microscopy. Our goal is to provide life scientists with open source access to sophisticated tools to support their work. Designed to interact with existing commercial software, all OME formats and software are free, and all OME source code is available under GNU public "copyleft" licenses. OME is developed as a joint project between research-active laboratories at Dundee, LOCI and its commercial partner Glencoe. In addition, OME has active collaborations with many imaging and informatics groups. We would like to thank the many commercial, academic and health organisations that have contributed to the OME development effort. A full list of the supporters is available on our web site.