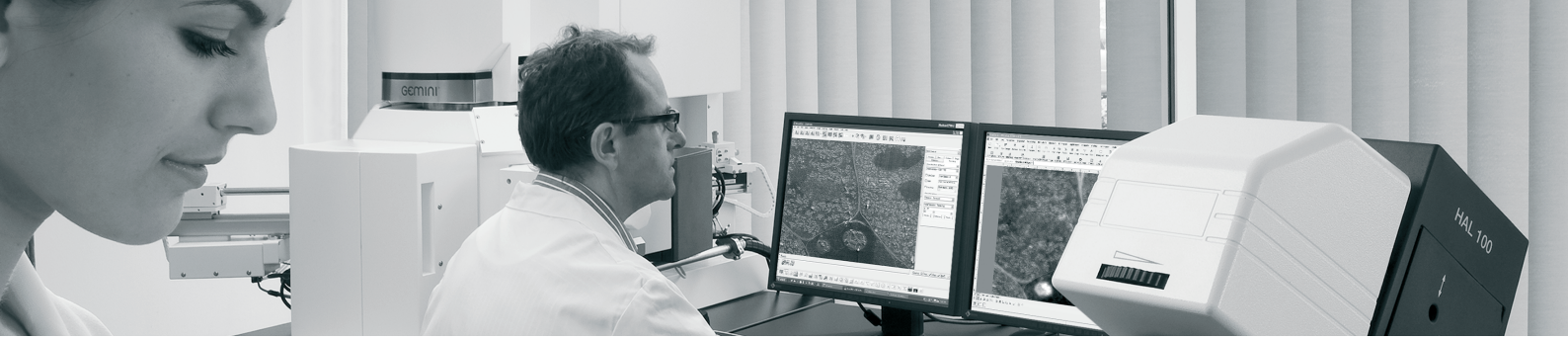
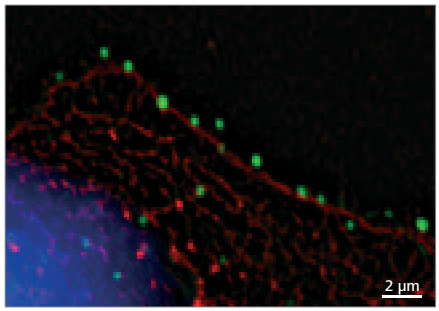
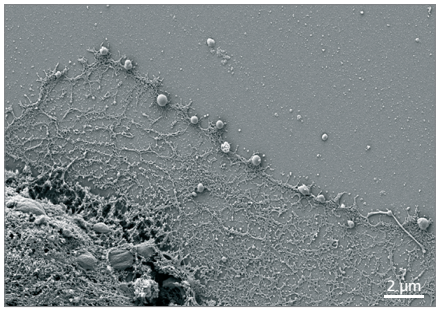


ZEISS Shuttle & Find

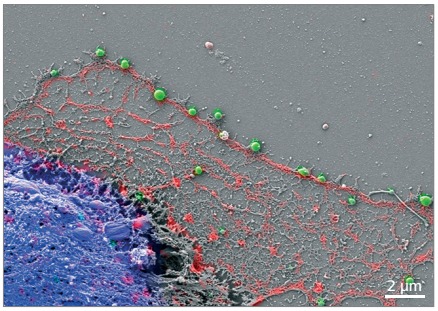
Increase the Productivity of Your Correlative Microscopy



Macrophage endocytosis – Overlay of widefield and SIM



Electron microscopy



Correlation of both light and electron microscopy

Images courtesy of Dr. Jeffrey Caplan, Delaware Biotechnology Institute, University of Delaware.

Bridge the Micro and Nano World

With Shuttle & Find, you connect your electron microscope and light microscope from ZEISS. Investigate your sample in both systems efficiently thanks to automatic relocation of regions of interest (ROI). Use your stereo, light microscope, confocal and superresolution microscope to find the structures or cells you are interested in. Image the ROIs with their fluorescently labeled proteins then transfer the specimen to your scanning electron microscope (SEM). Shuttle & Find speeds up your acquisition workflow by keeping track of your investigated ROIs. You benefit from shorter time to result and get more data in a shorter time.

Use Shuttle & Find for offline analysis in cell biology, neurobioloy, studies of host-parasite interactions and analysis of symbiotic relations. You can now correlate and overlay images from your ZEISS light and electron microscope.

Highlights

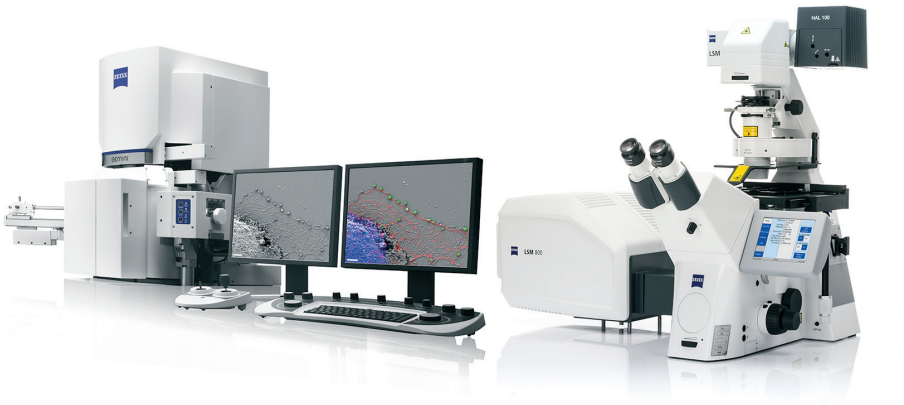
- Use the modular concept to combine your ZEISS light and electron microscopes and build flexible systems tailored to your applications
- Visualize your sample from widefield, confocal or superresolution to finest ultrastructural details
- Speed up your workflow with a fast three-point calibration to easily relocate ROIs
- Use specimen holders for TEM grids, cover glasses, or any system with three calibration marks
- Fully integrated in ZEN imaging software
- Generate correlative overlay images with the help of Shuttle & Find's built-in functions

Productive Workflow

Calibrate the system to three correlative landmarks on your light microscopy. You can use either the dedicated Shuttle & Find sample holders or your own custom landmarks. Then image the ROIs on your sample. These positions are saved as metadata. Transfer the specimen to your SEM or FIB-SEM and calibrate the same three landmarks and load your images. You then simply click on the ROIs you want to investigate and your sample will automatically be moved to image at the corresponding position.

ZEISS Shuttle & Find

Increase the Productivity of Your Correlative Microscopy



The Best of Two Worlds:

Light and electron microscopy are two technologies that ideally complement each other. You can now combine them to gain new insights and enhanced productivity. ZEISS as the world`s only manufacturer of both light and electron microscopes in all performance classes now provides a bridge between both worlds. Benefit from easy sample transfer, fast ROI relocation and precise image correlation. You gain short time-to-result and maximum information from your samples.

Technical Data:	
Light Microscopes	Stemi 2000, SteREO Discovery, Axio Zoom.V16, Axio Scope.A1, Axio Imager, Axio Examiner, Axio Observer, LSM 7 family, LSM 8 family, ELYRA superresolution systems
Electron Microscopes	EVO, Sigma, ULTRA, SUPRA, Merlin Compact, GeminiSEM, Crossbeam, Auriga Compact
Sample Holders	■ Specimen holder CorrMic Life Sciences for cover glasses (22 mm x 22 mm) ■ Specimen holder CorrMic Life Sciences for TEM Grids (3 mm), up to 4 grids per correlative holder
Adapters	■ Mounting frame K for Specimen holder CorrMic Life Sciences ■ SEM Adapter for Specimen holder CorrMic Life Sciences ■ SEM/STEM Adapter for Specimen holder CorrMic Life Sciences
Repositioning Accuracy	■ < 25 µm (initial accuracy, depending on stage specification) ■ < 5 µm (using software option for fine calibration)
Calibration	■ Manual or semi-automatic calibration based on three reference markers on the correlative sample holder ■ Definition of user-defined sample holders
Relocation	■ Definition of multiple regions of interest per image ■ Field of view in the SEM is automatically adjusted
Correlation	Image correlation function with correction of scaling, translation and rotation

Suitable Applications:

- Neurobiology (songbird brain)
- Cell biology
- Microbiology
  (yeast cell sections; bacteria in root nodes)
- Immunology
- Botany
- Pharmaceutics

micro@zeiss.com
www.zeiss.com/shuttle-find