

420

Automated large-scale 3D fluorescence imaging: UltraMicroscope Blaze™ Light Sheet Imaging System

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Abstract

Light sheet microscopy in combination with tissue clearing enables visualization of intact organs and even entire mice bodies at cellular and subcellular level. This technique can speed up and reduce the cost of conventional histology significantly. In this workshop, we will introduce you to large-scale 3D fluorescence imaging with the brand new UltraMicroscope Blaze – the first fully automated light sheet microscope for large or multiple samples. With cutting-edge light sheet optics, the microscope operates as a virtual microtome which performs section-free high-resolution 3D imaging. You will learn how light sheet imaging can enable you to obtain an unbiased view at large samples such as mouse bodies and organs, from overview down to subcellular details, at an accelerated pace.