ELMI2023

Plant imaging at the Center for Advanced Bioimaging (CAB)

S.J. Kjeldgaard-Nintemann¹, N.M. Christensen¹

¹ Center for Advanced Bioimaging Denmark, Faculty of Science, University of Copenhagen, Denmark.

Abstract

The Center for Advanced Bioimaging (CAB) at the University of Copenhagen offers users from a broad spectrum of research areas expert training and access to a comprehensive bioimaging instrument park, including widefield and confocal microscopes for 2-photon, super resolution, and fluorescence lifetime imaging microscopy.

CAB is specialized in live imaging and has vast experience in plant imaging. A configuration especially suitable for plant imaging available at CAB is the 3i Marianas spinning disk confocal microscope. Equipped with an optional vertical stage and a computer-controlled light source for day/night cycles, it is ideal for long-term imaging of growth processes in plants in their natural orientation. Mounting the samples in agar-based growth medium or even soil allows imaging of plants in timespans from hours to days, from the subcellular to the whole organism level, and with the high resolution, speed and sensitivity of a state-of-the-art spinning disk confocal microscope.

