Organoid analysis with confocal and widefield automated imaging

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These artificial three-dimensional model systems can imitate the cellular composition and tissue architecture of organs while also are easier to maintain, to grow, to manipulate experimentally and have become more and more important tools to understand the events and signaling cues taking place during the development of living organism and organs. Three main approach presented here are extremely convenient for the timelapse acquisition of this incredible model systems: widefield automated imaging, confocal or multiphoton point scanner and (lattice) lightsheet.
Consequently, the software processing of the resulting image files can be challenging due to the data dimension and must be done, as here shown, fully or semi-automatically to save researchers valuable time.