THE EVOLUTION OF OPTICAL SECTIONING MICROSCOPY, THE CARL ZEISS PERSPECTIVE ON THE EVER CHANGING PORTFOLIO

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All biological specimens from the thinnest cell monolayers to large whole organisms inherently have some level of thickness making imaging of the location of interest without the out of focus blur challenging. In the early nineteen eighties the commercialisation of the confocal microscope allowed for the first time researchers to easily purchase a solution to this problem.
Over the subsequent three decades the use of optical sectioning has increased tremendously and many new techniques have become available to allow imaging faster than before, deeper than before or at resolutions previously just within the realm of electron microscopy.
Today optical sectioning microscopy accounts for over half of the total microscopy market and the numbers of techniques that form this market has expanded from just the simple point laser scanning microscope to a whole family of complementary techniques.

This talk will briefly cover the reason for this expansion before moving on to describe some of the recent additions to the Carl Zeiss optical sectioning portfolio, as well as changes to the existing products in this line up. The talk will conclude with a few observations about the challenges to both academia and instrument manufacturers in the coming years as a result of the recent and continued rapid expansion in the number of possible techniques.

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