Microscopy and hyperspectral imaging for cell-on-a-chip applications

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Cell-on-a-chip devices hold promise for a seamless integration with microscopy tools, boosting the development of high content screening assays for drug screening, toxicology, and precision medicine. By carefully optimizing microscope configurations and acquisition parameters, both long-term live cell imaging and high resolution microscopy can be applied to cell-on-a-chip devices. Additionally, recent advanced in hyperspectral imaging are opening new scenarios for the on-chip acquisition of biochemical information in a label-free manner.