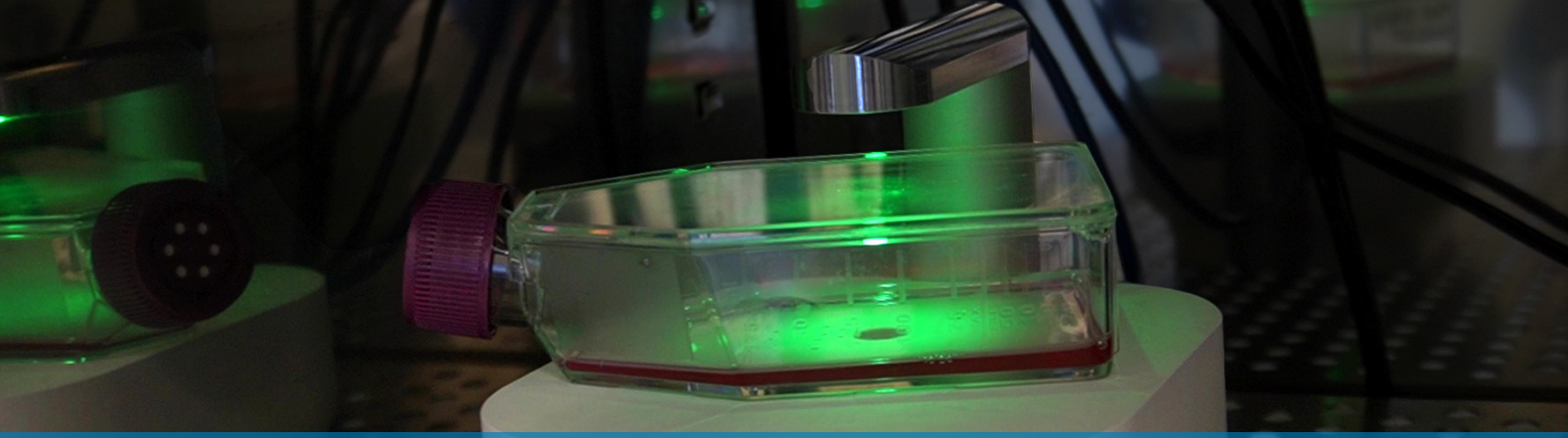

CytoSMART Lux3 BR

Live-cell imaging with optimal optical properties

The CytoSMART Lux3 BR is a compact inverted microscope built to work from inside any standard CO_2-incubator or hypoxia chamber. Monitor your cell culture for hours up to weeks at a time, while the optical properties of the device enable you to create images suitable for accurate analyses as well as for publication.

Publication-ready cell monitoring

The 6.4 MP CMOS camera of the Lux3 BR captures images enabling precise data quantification and matching the high standards for publication. The images of running or finished experiments with the Lux3 BR can be accessed, processed and analyzed from any device with an internet connection in the CytoSMART cloud. Using the cloud-based image analysis functions, cell confluency and gap closure in scratch assays can be determined.

Flexibility in experimental setups

With the Lux3 BR Duo Kit or Multi Lux3 BR, two or up to four devices can be connected to one laptop for simultaneous long-term comparison studies. Besides that, every device can be individually controlled by a different user, which provides flexibility in experimental setups. Therefore, these kits are ideal for comparison experiments, but also for large research groups.

Application example: Tracking of chemotactic single cell migration

In cancer metastasis, the migration of single cells is largely affected by chemical cues, which provide direction for migration to the cells via chemotaxis. In order to study the behavior of cancer cells in response to these cues, accurate cell tracking in an environment with a chemoattractant gradient is required. HeLa cells were seeded in the Ibidi µ-Slide Chemotaxis, with either 20% FBS in one reservoir and 0% FBS in the other, or 10% FBS in both reservoirs. High-quality images were made using the Lux3 BR Duo Kit, enabling single cells to be tracked with FIJI-plugin TrackMate, as well as direct comparison of the experimental groups (Fig. 1). Total covered distance was smaller with the FBS gradient, but those cells displayed a preference to migrate towards the higher FBS concentration (Fig. 2).

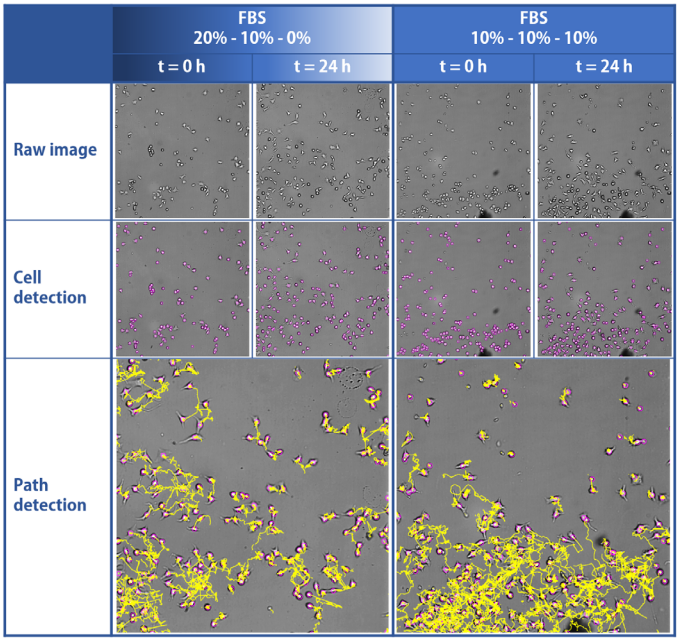

Figure 1. Single HeLa cell tracking in Ibidi µ-Slide Chemotaxis, using the CytoSMART Lux3 BR Duo Kit and FIJI-plugin TrackMate.

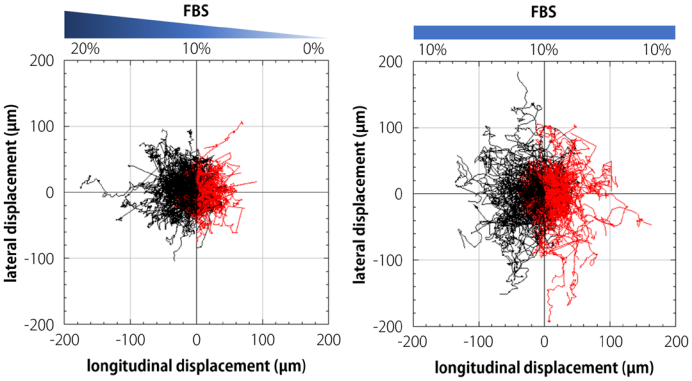

Figure 2. HeLa cells cover a larger distance in constant FBS concentration, but prefer to migrate towards a higher FBS concentration when exposed to a gradient.

https://cytosmart.com/products/cytosmart-lux3-br

**Research use only. Not intended for diagnostic purposes.*