Automated Wound Healing Assay for High-Throughput Analysis of Cell Migration using SYBOT-1000®, CELLAVISTA® and YT-SOFTWARE®

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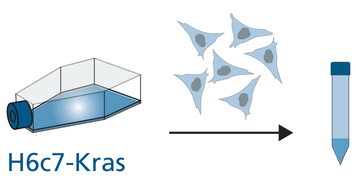
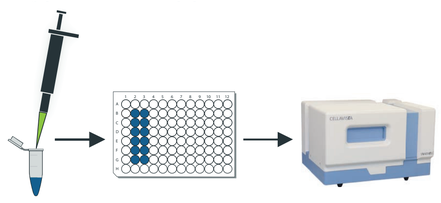
Method

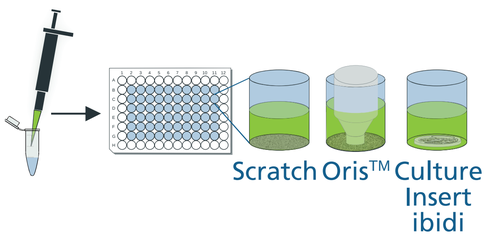
Harvest cells



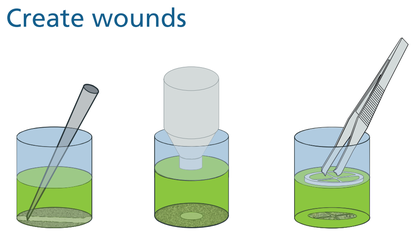
Count cells with Trypan Blue Application



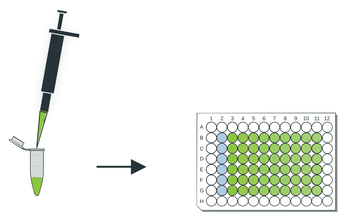
Seed cells



Create wounds



Treatment with Cytochalasin D



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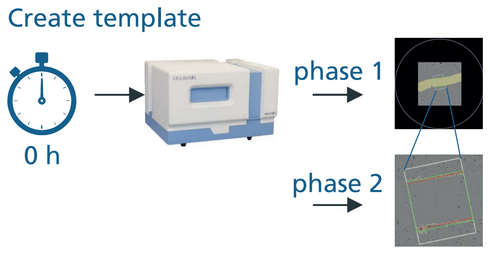
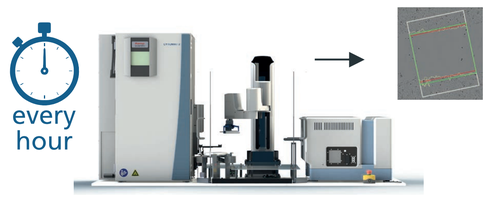


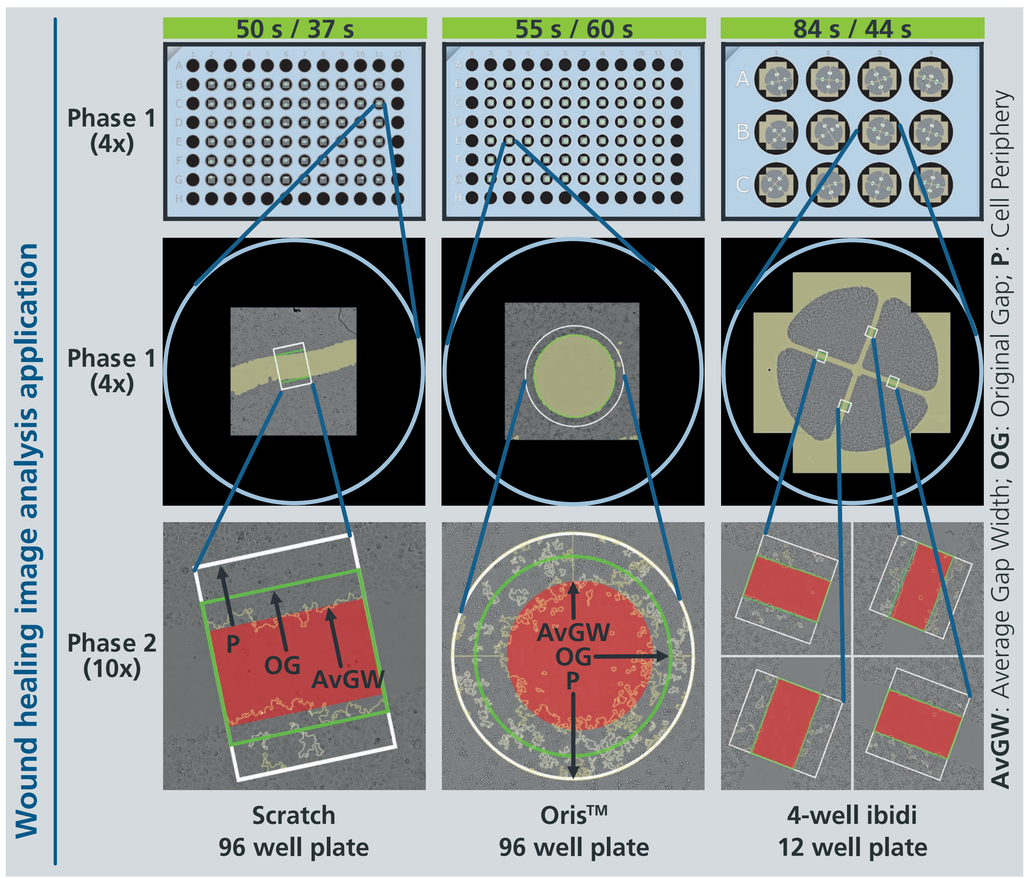
Continuous measurements of phase 2 and automatic data analysis

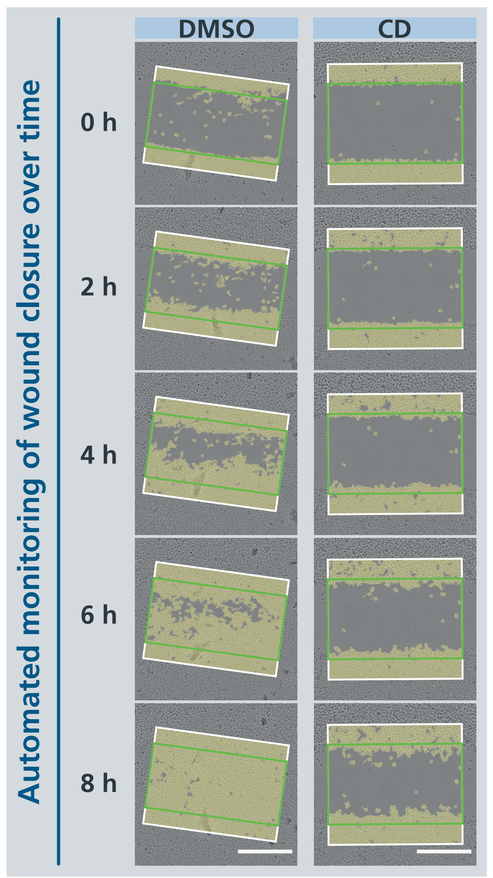


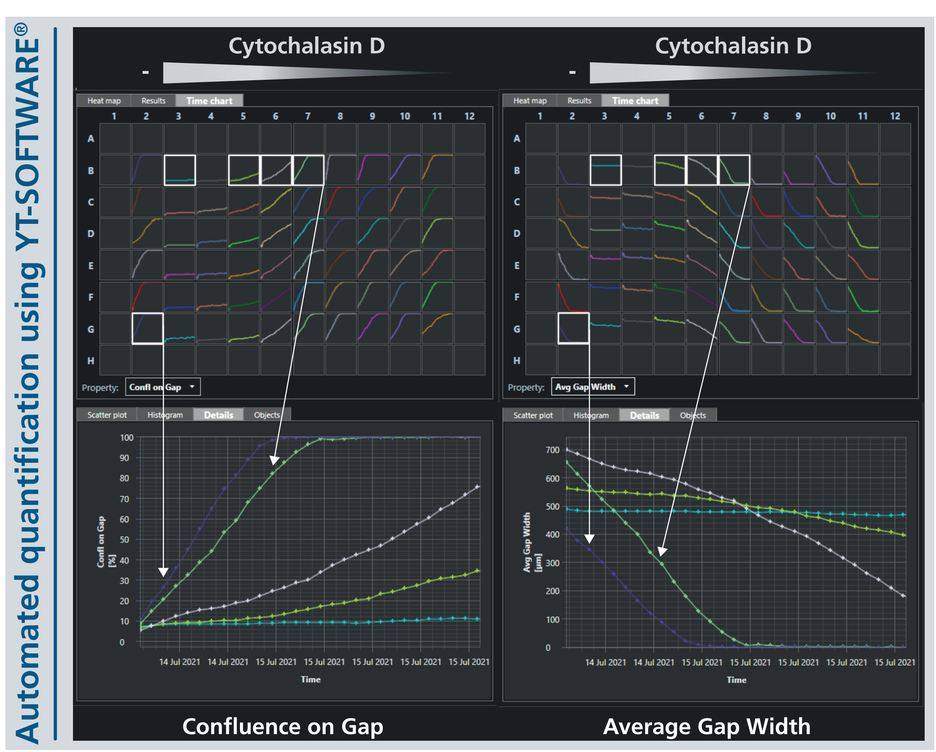
Introduction

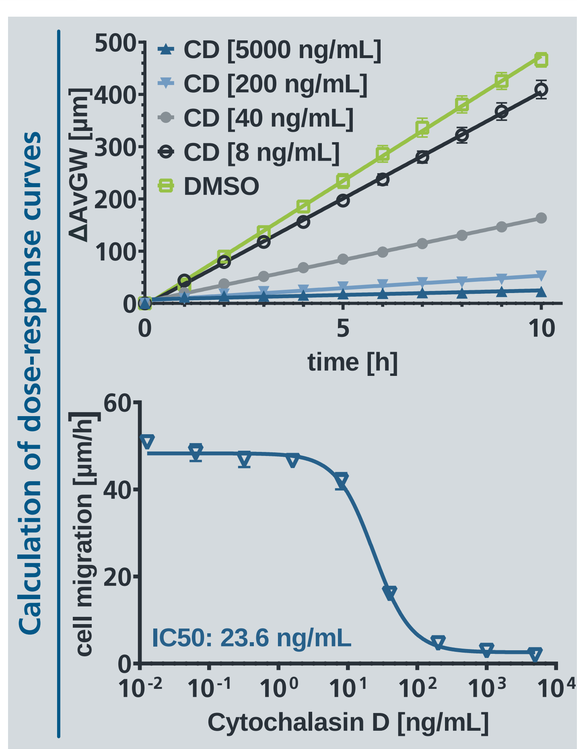
Cell migration plays a crucial role in physiological and pathological processes. A convenient method for *in vitro* analysis of cell migration is a wound-healing assay. In this assay, an artificial cell-free gap (wound) is created on a confluent monolayer of cells and closure of the wound is monitored over time by microscopy. However, with conventional or time-lapse microscopes, only a few samples can be measured at a time. Therefore, we aimed to develop a wound healing assay in a high-throughput format using our automation solution.

Results









Benefits of SYNENTEC's Automated Wound Healing Assay

- Automation-ready enabling a high throughput
- Continuous measurement over time
- Accurate and efficient image processing
- Flexible wound detection regardless of number, shape and orientation

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