

Customizable platform for assay automation by centrifugal microfluidics

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Centrifugal microfluidics enables efficient miniaturization, integration, parallelization and automation of biochemical assays in disposable microfluidic cartridges. This talk will demonstrate fully integrated sample-to-answer genotyping assays from whole blood which enable rapid and multiplexed molecular diagnostics of infectious diseases at the Point-of-Care. Advanced functions will be presented such as splitting a sample into thousands of micro droplets which provide the ground for fast digital assays without the need for calibration.

Due to the versatility and maturity of fluidic unit operations which can be implemented in centrifugal microfluidics affordable customization of devices for a wide range of applications seems to be in reach. This opens up the field of assay automation for small and medium sized companies.