Confocal quantitative image cytometry applications

YOKOGAWA ◆

Workshop

Date:

23rd of November, 2017, 13:00

Place:

University Campus Bohunice, Kamenice 753/5, Brno
Seminary room, building A3

Topic:

Technology overview, applications and hands-on workshop using CQ1 imaging cytometer

Registration:

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- till 21st November, 2017 (limited amount of places available on spot)

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Program:

13:00 - 13:50   Applications seminar, software and hardware introduction
14:00 - 15:00   Image acquisition
15:15 - 17:00   Quantitative image analysis, open discussion

Abstract:

Confocal quantitative image cytometry is a growing field finding its applications in an increasing number of research areas, with its core use in cellular and molecular biology.

Here we present a compact, easy to use benchtop solution, that allows not only for fast, high resolution imaging, but presents a reliable platform for real time live cell analysis in a fully controlled environment. Unlike a flow cytometer, the approach does not require to flush cells away, so all time-based changes in a sample can be simply followed by a continued measurement, or even after incubating the sample. Confocal Imaging quantitative cytometry enables 3D imaging and quantification of live cell clusters, such as spheroids within a 3D culture vessel without intervention, keeping the cells intact. During post-acquisition, the data can be exported into general formats which are compatible with various third-party software for advanced data analysis. The platform can be constructed into a fully customized system, with a possible integration with external systems - via a robot for culture dish handling. Key features of the **CQ1 imaging cytometer**, **designed by Yokogawa**, include: precise quantification of morphological information, full capability of live cell observation and highly reproducible measurements, providing a great foundation for advanced image-based research.