



Applications of High Content Microscopy

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ABSTRACT

High Content Microscopy (HCM), a high-throughput imaging technique, is based on the principle of automated scanning of live and/or fluorescent biological samples simultaneously contained in multi well dishes. It is followed by big data analysis using specialized softwares. The analysis is based on creating cell profiles using a series of morphological and intensity characteristics. While it' s considered a mainstream technique in of drug discovery studies, the broad spectrum of established protocols for the analysis of cell structure and behavior, reflects the variety of biological applications of HCM. This presentation provides represented applications developed by the HCM facility at IMBB/FORTH, including cell measurements during proliferation and apoptosis, infection, cell differentiation and drug repositioning.