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**BOOK OF
ABSTRACTS**



HCS and *In Vivo* imaging applications as a necessary part of targeted therapy development

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Modern medicine more and more often uses technologies that enable defining therapies aimed directly at cells related to the disease process or dysfunction of a particular patient. A comprehensive assessment of the effectiveness of the therapy, as well as potential side effects, is extremely important. Therefore, targeted therapies are increasingly being verified prior to application at the level of cell cultures or model organisms.

The development of cellular imaging techniques and *In Vivo* imaging of laboratory animals allows for the analysis of the effect of therapy on the morphology, biochemistry and physiology of individual cells, as well as the observation of the effect of therapy on the target cells implanted into the model organism. The use of fluorescence and luminescence marking techniques guarantees high sensitivity and resolution as well as the possibility of standardizing the imaging process and data analysis.

The lecture will present examples of applications in the field of High Content Screening cellular imaging and *In Vivo* imaging of laboratory animals, used in the process of developing targeted therapies, as well as hardware solutions enabling this type of research.