Launch of Revvity's New Rapid Automatic AI Software for Preclinical Imaging Data Analysis

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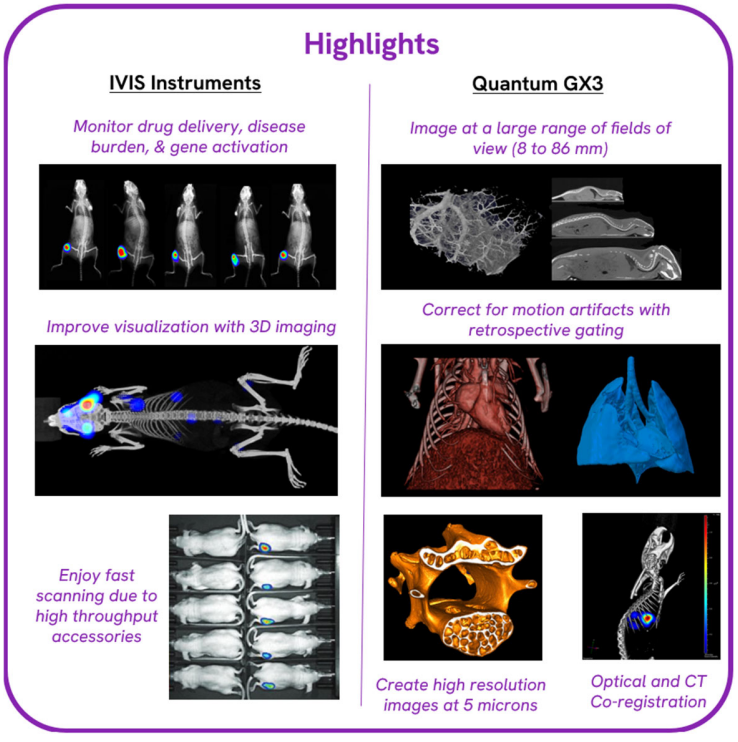
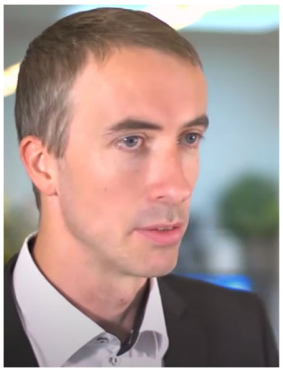
Revvity offers a range of imaging modalities, allowing researchers to choose which modality offers the most meaningful data for their specific application. This can be a combination of imaging modalities where researchers can maximize the potential of each platform. Optical imaging, both based on bioluminescence as well as fluorescence has been successfully used throughout the scientific community. Although it is great for providing insights in molecular pathways and unravelling disease areas, the limitation is often on the visualization and detection of structural changes. Micro computed tomography, mCT, has the ability to visualize, quantify and track these structural changes over time on a microscopic level where eg tumor nodules of 200µm can be identified in live animals. A second main research area where mCT data offers great insight is any application where a change in density occurs. Here researchers apply mCT to study osteoporosis, dental decalcifications, but also lung emphysema and fibrosis. The combination of morphometric analysis and density measurements makes mCT a valuable imaging tool. A third imaging modality is ultrasound where the clinical analogy can easily be made, eg on the Shear Wave Elastography (SWE) analysis where liver stiffness is measured. Ultrasound produces no harmful radiation dose and can therefore be routinely used to screen disease progression.



All imaging modalities require data analysis, and this can often be a bottle neck and very time consuming. Currently researchers have to manually identify and draw the region of interest (ROI) before any analysis can be performed. Revvity has developed software where with the help of AI the

customer can reliably use the AI based segmentation to greatly speed up the progress of analysis.

During the presentation we will cover the different imaging modalities Revvity offers, discuss which imaging modality can be used for which application area and where the strengths and limitations lie. The use of AI based segmentation will be demonstrated and customers will be invited to join the Revvity program where specific AI models based on customer data can be generated.



Dr. Jeroen Hostens holds a BA in Biology, a Masters in Biotechnology and PhD in oncology from the University of Ghent, Belgium.
After several years of post-doctoral research in the field of auto-immune diseases he moved to the private industry specializing in preclinical imaging applications and technology.
Over the past 20 years Jeroen has had different roles supporting the global in-vivo business. His main focus has been micro CT technology.
Currently he is the product manager for in vivo at Revvity exploring the capabilities of AI to enhance the analysis of images.