

WEBINAR: Modality Review: The Basics of Intravital Fluorescence Microscopy

Questions and answers from the May 20th, 2021 webinar titled “Modality Review: The Basics of Intravital Fluorescence Microscopy”

This document includes questions we received that we did not have time to address.

1. **Please elaborate about the biological disruption of antibody binding?**
 - a. Antibody binding can sometimes affect the target cell's biology by, for example, blocking its normal interactions with other cells, causing false interactions, or triggering intracellular signalling pathways. Therefore, it is important to set up appropriate controls in your study.

2. **Which is the fastest imaging modality with regards to flowing cells in the bloodstream?**
 - a. Intravital microscopy would give you the highest temporal resolution at $\sim 1 \mu\text{m}/(\text{sub-})\text{seconds}$. Combined with video-rate imaging (~ 30 frames per second or higher), IVM allows you to observe rapid dynamic behavior (e.g. flowing, rolling, intra/extravasating) of cells in the bloodstream. Therefore, the high-temporal resolution of real-time IVM expands the visual perception of researchers for understanding dynamic cellular behaviour, which can lead to novel discoveries.