

## IMS-P4 **Unexpected Dissemination Patterns in Lymphoma Progression Revealed by Serial Lymph Node Imaging in Mouse**

○Ken ITO<sup>1,2,3</sup>, Bryan SMITH<sup>1,2</sup>, Natesh PARASHURAMA<sup>1,2</sup>, Sanjiv Sam GAMBHIR<sup>1,2</sup>

<sup>1</sup>Molecular Imaging Program at Stanford, <sup>2</sup>Radiology, Stanford University, <sup>3</sup>Eisai. Co., Ltd.

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Non-Hodgkin lymphoma (NHL) is a heterogeneous and highly disseminated disease, but the mechanisms of its growth and dissemination are not well understood. Using a mouse model of this disease, we used multimodal imaging, including intravital microscopy (IVM) combined with bioluminescence and  $\mu$ PET/CT, as a powerful tool to better elucidate NHL progression. Long-term observation inside a peripheral lymph node was enabled by a novel lymph node internal window chamber technique that allows chronic, sequential lymph node imaging under in vivo physiologic conditions. Unexpectedly, we detected a reproducible efflux of lymphoma cells from spleen and bone marrow, concomitant with a massive and synchronous influx of lymphoma cells into the ILN, several days after injection. Our findings argue that in NHL an efflux of tumor cells from one disease site to another, distant site in which they become established occurs in discrete bursts.