

# Sugimura Group SEMINAR

## Imaging-based Analyses of Vascular Development Using Zebrafish



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Thursday July 26<sup>th</sup>, 2018 15:00–16:00  
Kyoto University KUIAS/iCeMS Main Building  
2F Seminar Room (#A207)

### Abstract:

To establish an extensive and elaborate blood vessel network, behavior of individual endothelial cell (EC) is coordinately regulated in response to extracellular inputs. To understand the dynamic behavior of ECs during vascular development, we visualize endothelial responses simultaneously with EC morphology and blood flow in living zebrafish. For example, we have succeeded in visualizing VEGFA/VEGFR2 signaling and YAP activity indirectly in ECs of living zebrafish (\*Yokota and \*Nakajima et al, eLife, 2015; Nakajima et al, Dev. Cell, 2017). In this seminar, I will talk about our published and unpublished studies about how vascular development is spatio-temporally regulated by angiogenic cues and flow-mediated mechanical stimuli.

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