



Seminar Series

Wednesday, June 27 from 13-14 PM

In U23

Dr Carsten G. Hansen

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The Hippo pathway:

Regulation of cancer, regeneration, and everything else?

The Hippo pathway plays major roles in development, regeneration, and cancer. Its activity is tightly regulated by both diffusible chemical ligands and mechanical stimuli. In this talk I will give a brief overview of recent findings in the field. I will then focus on how the Hippo pathway is a major cellular sensor and mediator of mechanical stress. It is not yet fully understood how this response is sensed at the plasma membrane and facilitated via the Hippo pathway. Using genome editing and knock out of YAP/TAZ, we show that YAP/TAZ are essential for the expression of key endolysosomal proteins. We go on to show that these specific gene sets are direct YAP/TAZ-TEAD target genes. In this way, we demonstrate that the Hippo pathway is an important mediator of shear stress sensing. We thus reveal a direct relationship between membrane traffic, flow sensing and the Hippo pathway.

Dr. Carsten G. Hansen is invited by Associate Professor Kim Ravnkjær, ATLAS