

## **Decoding endosomal conversion mechanisms.**

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Endosomal conversions on maturing endosomes are a general theme in intracellular trafficking. There are several hypothesis about how such conversions may be brought about mechanistically. Using Lattice light-sheet microscopy, a rapid volumetric imaging technique, we image the entire dynamics of conversions at each endosomes for a whole cell. Using image segmentation and kymograph based analysis, we ask if reaction-diffusion based mechanisms, that are involved in pattern formation, are a basis of endosomal conversions and maturations.