MBG Focus Talks in Molecular Biology

Friday 9th September 2016, at 9:00-10:00
Mogens Zielerstuen, AU Conf. Centre, Fredrik Nielsens Vej 2 (Building 1422)

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Proteins that shape the plant endoplasmic reticulum

The endoplasmic reticulum (ER) is a complex, dynamic, interconnected network of membrane sheets and tubules. It has many functions including protein folding, assembly, glycosylation and export, lipid biosynthesis, calcium storage, plus and many signalling functions. The ER has a distinctive shape, with tubules forming 3-way junctions that can move, break or stretch out into sheets. This unique architecture arises from the action of specific ER morphogenic proteins: some can shape the ER membrane into tubules, some promote tubule fusion, and some regulate sheet formation. I will present data regarding some of these ER morphogens and introduce some recent techniques that help us visualize and quantify the geometry of this fascinating organelle.