

Focusing on the mitochondrial inner membrane with light and electron microscopy

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Mitochondria, the ‘powerhouses of the cell’, are double membrane organelles that are essential for eukaryotic life. Because of their inner-cellular mobility, their small size and their complex architecture, they are notoriously challenging objects for high-resolution light microscopy [1]. We employ STED super-resolution microscopy and other microscopies to investigate the folding of the mitochondrial inner membrane. We aim at understanding how mitochondria develop and maintain their complex inner architecture [2-4]. This talk will summarize our recent progress in investigating inner-mitochondrial protein distributions and cristae dynamics.

[1] Jakobs S. et al., *Annu Review Biophys* 49, 289-308 (2020)

[2] Pape et al., *PNAS* 117, 20607-20614 (2020)

[3] Weber et al., *Nature Photonics* 15, 361-366 (2021)

[4] Stephan et al., *EMBO J*, e104105 (2020)