

NANOSCIENCE COLLOQUIUM

Cryo-electron tomography-the cell biology that
came in from the cold

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Abstract: Recent technological developments, such as direct electron detectors and cryo-focused ion beam milling, allow cryo-electron tomography (cryo-ET) to image cells with unprecedented resolution. My group capitalizes on these advances to investigate the structural basis of cell function and pathological dysfunction in situ. In this talk, I will discuss (i) the basics of cryo-ET technology, (ii) our recent data shedding light into the toxic roles of protein aggregation in neurodegenerative diseases [see e.g. 1, 2, 3], and (iii) the perspectives of our future work.

References

- [1] Bäuerlein et al. and Fernández-Busnadiego, Cell (2017) 171 (1), 179-187 ([link](#))
- [2] Guo et al. and Fernández-Busnadiego, Cell (2018) 172 (4), 696-705 ([link](#))
- [3] Trinkaus et al. and Fernández-Busnadiego, Nat Comm (2021) 12 (1), 2110 ([link](#))

