



## Seminar/Talk

# Unravelling the inner secrets of cells with gene editing and live-cell super-resolution microscopy | Francesca Bottanelli, Freie Universität Berlin, Institute for Chemistry and Biochemistry

Host:

In our laboratory, we integrate endogenous tagging with live-cell super-resolution STED microscopy to illuminate dynamic processes occurring at the nanoscale and in the unperturbed physiological environment of the cell. We have generated a comprehensive library of proteins involved in membrane homeostasis. The ability to explore endogenous cellular dynamics is revealing novel and unexplored sorting mechanisms. We have provided functional characterization of a novel sorting compartment that we named ARF1 compartment. ARF1 compartments orchestrate clathrin-dependent post-Golgi trafficking via maturing into recycling endosomes. We also study the function of microvilli as a signaling organelle and investigate how signalling molecules dynamically re-organize on membrane protrusions during chimeric antigenic receptor (CAR)-mediated activation.

**Thursday, March 20, 2025 02:00pm - 03:00pm**

Mondi Seminar Room 2, Central Building



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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<https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.