

14<sup>th</sup> January 2021, 10:00–11:00h Zoom virtual meeting <u>https://desy.zoom.us/j/99570520017</u> (Meeting-ID: 995 7052 0017, Password: 911851)

## Kay Grünewald

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## Electron cryo tomography of virus-host interactions

The talk will give an overview of how we use electron cryo microscopy (cryoEM) and in particular electron cryo tomography (cryoET) to understand cellular mechanisms and how they are hijacked by viruses. Examples will be from host-interactions of herpes- adeno and coronaviruses. For this we use an integrated structural cell biology approach combining cryoET with complementary information, e.g. from fluorescence microscopy, soft X-ray microscopy, mass spectrometry and molecular dynamics simulations. While maybe not on the ultrafast time scale, the processes are highly dynamic and require in cellulo and in vitro experiments to understand the different levels of complexity. Furthermore, I will also provide an overview of the capabilities of the cryoEM facility at CSSB.