

Chromatin dynamics during viral infection
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Nuclear-replicating viruses entering their host cell target the nucleus due to their dependence on the DNA replication and transcription machinery of the host. Viral infection induces profound modifications of nuclear structures including chromatin. These changes include the redistribution of compacted chromatin and the recruitment of host factors. Intranuclear movement of nucleocapsids is also a critical step for viral life cycle. Thus, it is crucial to understand these dynamics, both from the point of view of basic research and for the development of oncolytic virotherapy and new antivirals. In this study, we seek to examine the mechanisms of virus-induced remodeling of chromatin and capsid dynamics within the chromatin network of nuclear-replicating viruses. Using cutting-edge imaging techniques we will analyse chromatin condensation fluctuations with the aim to acquire knowledge on the dynamic state of the chromatin environment during viral infection.