Subproject C3

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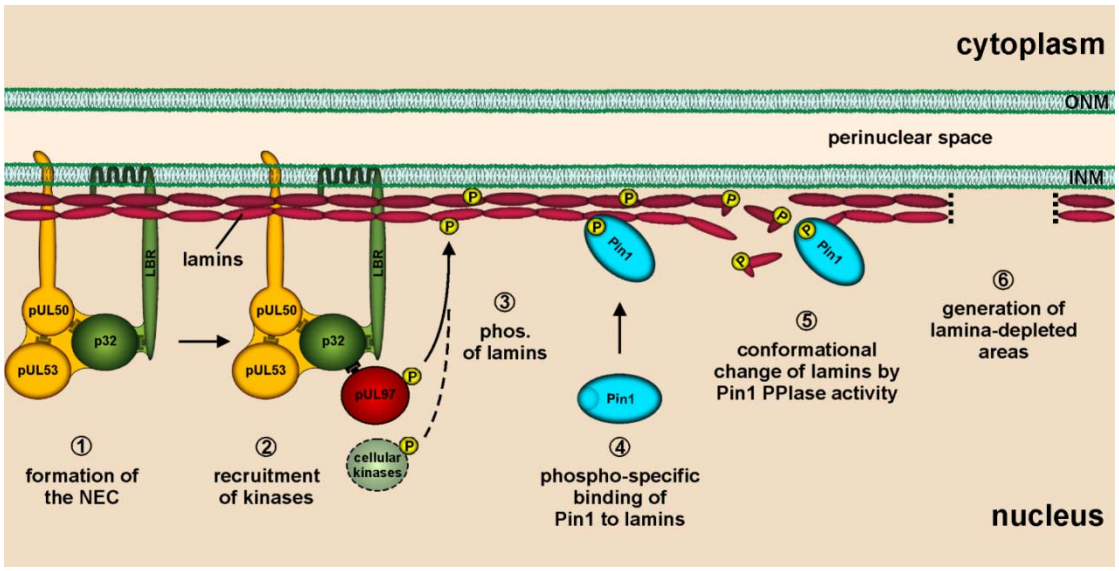
"Regulation of nuclear egress of human cytomegalovirus through a multifunctional viral-cellular protein complex"



Goals

The HCMV-specific NEC is a multiprotein complex composed of viral and cellular constituents and fills a key position in the viral replication cycle. An experimental investigation of this multifacetted mode of interaction between HCMV and its host will elucidate central points of viral infection, pathogenicity and intervention strategies. Therefore, the main goals of the project are

- to characterize the molecular nature of the NEC
- to determine the multiple regulatory properties of NEC components
- to identify protein domains and structural elements that confer regulatory interactions and NEC functionality
- to develop novel strategies of therapeutic intervention by targeting small inhibitory molecules to es-sential positions of the NEC.

The detailed study of HCMV nuclear egress and the underlying protein transport processes will illustrate the way how viral effectors recruit cellular proteins to remodel the nuclear envelope for benefit of the virus. This information will not only be important for the understanding of HCMV replication but may also be transferred to analogous situations in other herpesviral systems.