SFB 900

SFB 900 SEMINAR SERIES

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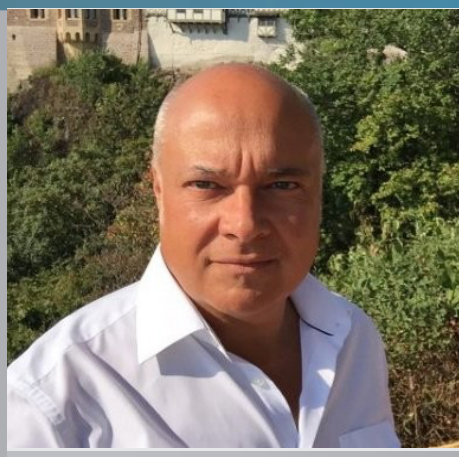
TITLE

The LMP1 oncogene of Epstein-Barr virus - an old dog learns new tricks

SPEAKER

Prof. Dr. rer. nat. Arnd Kieser,
Helmholtz Zentrum München, German Research Center for Environmental Health, Research Unit Gene Vectors



LOCATION

Lecture Hall Q, building J6, MHH, Carl-Neuberg-Str.1
Hannover

27.06. 2019

5.00 PM (s.t.)

» Research of Arnd Kieser

Latent infection with Epstein-Barr virus is associated with malignancies including post-transplant or Hodgkin's lymphoma. Cell transformation by EBV depends on its oncoprotein LMP1, which activates cellular signaling pathways by recruiting members of the cellular TNF receptor-associated factor (TRAF) protein family, leading to NF-kappaB, JNK and MAPK activation. However, although the LMP1 signaling network seems to be widely established, important questions still remain unanswered. We combine biochemical, genetic and omics technologies to characterize the LMP1 signaling complex and downstream signaling processes and their functions in cell transformation by LMP1. A focus is set on a novel and unusual role of the IKK complex in transforming signaling. Finally, we apply this knowledge to identify potential targets for inhibitory small molecules interfering with LMP1 activity. We established high throughput screening technology for the interaction of LMP1 with TRAF molecules and identified small molecule inhibitors that effectively block this interaction and kill EBV-transformed B-cells.

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