

# SFB 900 SEMINAR SERIES

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## TITLE

RNA Systems Virology: Transcriptional and Post-transcriptional Perturbations in Herpes Simplex Virus Infected Cells



### SPEAKER

Dr. Emanuel Wyler Max Delbrück Center for Molecular Medicine, Berlin, Germany



#### LOCATION Lecture Hall M, Building J1

Lecture Hall M, Building J1 MHH, Carl-Neuberg-Str. 1 Hannover





#### » Research of Emanuel Wyler:

HSV-1 belongs to the Herpes virus family characterized by double-stranded DNA chromosome containing around 100 genes. Herpes viruses latently infect large proportion of the worldwide population, with occasional lytic recurrences.

We study the transcriptional and post-transcriptional alterations in lytic HSV-1 infections in primary human fibroblasts. We apply high-throughput systems biology methods to elucidate the processes in infected cells, and on the other side use virus infections to reveal properties of transcriptional and post-transcriptional regulation. First, we have characterized the induction of antisense transcription from the host cell genome, and are currently investigating the causes for this phenomenon. Second, we apply the emerging method of single-cell RNA-sequencing to describe the progression of early infection. Third, we study the regulation of a retained intron in an mRNA export factor upon virus infection.

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