



University of Stuttgart

Stuttgart Research Center Systems Biology



Systems Biology Seminar Talk

Decoding the 3' End: Integrative Transcriptomics of Aberrant and Alternative Transcription Termination

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14:00 CET

Host:

Prof. Stefan Legewie

Room 1.177, UG

Allmandring 31

Stuttgart

Abstract:

HSV-1 infection leads to genome-wide disruption of transcription termination but also increased use of internal poly(A) sites within genes similar to what is observed upon inhibition of splicing. To disentangle disrupted, premature and alternative transcription termination requires precise determination of poly(A) site locations before and during infection or splicing inhibition combined with transcriptomics of nascent transcription. In this talk, I will present methods we developed for integrative analysis of these data as well as results from our studies on HSV-1 transcription termination and CDK11 inhibition, which inhibits splicing genome-wide. In this way, we showed that premature and disrupted transcription termination in HSV-1 infection depends on only partially overlapping pathways and distinct functions of viral proteins.

CV:

Caroline Friedel is an associate professor for Bioinformatics at the Ludwig-Maximilians-Universität München (LMU) since 2015 and speaker of the joint interest group Bioinformatics (FaBI) of the GI, DECHEMA, GBM, GDCh, GMDS and VAAM. Following her PhD from the LMU in Bioinformatics in 2009 and a short Postdoc in the same lab, she moved to Heidelberg University as an assistant professor and later returned to LMU on a tenure-track position. Her research is largely focused on developing methods for the integrative analysis of multi-omics data, with a particular focus on splicing, transcription termination and virus infections.