

SFB 960-/BZR – Kolloquium

29. Juli 2013, 15.00 Uhr
BIO 5.2.38



Dr. Niels Gehring

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New insights into nonsense-mediated mRNA decay

Mammalian gene expression starts in the nucleus with the transcription of the primary transcript, the precursor mRNA (pre-mRNA). The pre-mRNA has to undergo several steps of processing before the mature mRNA is exported to the cytoplasm, where it serves as template for protein biosynthesis. During processing in the nucleus, the spliceosome loads the EJC (exon-junction complex) onto mRNAs. The exon junction complex plays a decisive role in nonsense-mediated mRNA decay (NMD) and has been shown to enhance translation. Proteins of the EJC are also involved in the localization of specific transcripts in *D.melanogaster* embryos. Hence, the EJC represents a key modulator of post-transcriptional mRNA function and metabolism in higher eukaryotes and as an indispensable marker for gene expression quality control.



In his talk Niels will highlight novel findings from his lab that shed light onto the molecular mechanisms of EJC assembly and function.

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