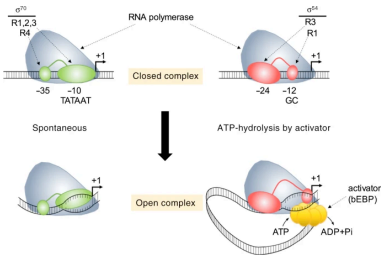
SFB 960-/BZR – Kolloquium

Thursday, December 3rd 2020, 14.00 Uhr
via Zoom



Dr Christoph Engl

Queen Mary University of London
School of Biological & Chemical Sciences

"Physiological insights into bacterial RNA repair"

The essential role of RNA in cell physiology made it necessary for all domains of life to evolve mechanisms to maintain its integrity. One such mechanism employs RtcB, a highly-conserved enzyme that seals broken RNA molecules with 2',3'-cyclic phosphate and 5'-hydroxyl termini. RtcB is found in all domains of life and is the key enzyme of a diverse range of RNA ligation reactions. In Archaea and Eukarya, RtcB is involved in tRNA splicing. During ER stress in metazoans, it seals spliced XBP1 mRNA to facilitate activation of the unfolded protein response. In bacteria, RtcB helps to maintain ribosome homeostasis in response to challenges to the translation apparatus. In this talk, I will present our recent findings that highlight the physiological importance of RtcB using the model bacterium E. coli.

Host: Prof. Dr. Remco Sprangers, Lehrstuhl für Biophysik-I. remco.sprangers@ur.de

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