**Thursday November 21, 2019 – 10h00**  
Conference room AI 1153 (*) - EPFL - Lausanne

**Dr. Violeta Castelo Szekely**  
CIG, UNIL, Switzerland (until April 2019)

“Denr-mediated translation reinitiation and links to the circadian clock”

**Host:** Prof. Johan Auwerx

**Abstract:**  
The non-canonical initiation factor DENR promotes translation reinitiation on mRNAs harbouring upstream open reading frames (uORFs). Moreover, DENR depletion shortens circadian period in mouse fibroblasts, suggesting involvement of uORF usage in clock reinitialization. In this study, ribosome profiling was used to identify DENR-regulated transcripts transcriptome-wide and within the clock circuitry. 240 transcripts were uncovered with altered translation rates, and linear regression was used to extract predictive features of DENR dependence. Among core clock genes, Clock was identified as a DENR target, whose protein biosynthesis is regulated through two uORFs and an alternative coding sequence start codon. These findings provide insights into uORF-mediated translational regulation that control the mammalian circadian clock and gene expression at large.

(*) **IMPORTANT NOTICE:** All external participants have to pass through SV Reception/Welcome Desk to be able to access to AI 1153.  
Contact person to call at arrival at SV Reception Desk: Administrative Assistant: 39522.