

**16 MAY AT 10.30 A.M.  
ROOM A101 | POVO 1**

**CIBIO  
EXTERNAL  
seminar**

# **EXPLOITING TARGETED EPIGENOME EDITING FOR THERAPEUTIC APPLICATIONS**

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“ Epigenome editing is emerging as a powerful new strategy to silence gene expression without altering its primary DNA sequence. In this regard, we and others have previously shown that transient delivery of Engineered Transcriptional Repressors (ETRs) can lead to efficient, long-term stable and specific epigenetic silencing of endogenous genes in both human and mouse cell lines. The ETRs are chimeric proteins composed of a programmable DNA binding domain, such as CRISPR-Cas9 or ZFPs, fused to either one or more of the following epigenetic repressive domains: KRAB, the catalytic domain of DNMT3A, and DNMT3L. Whether the ETR technology could program efficient and long-lasting gene silencing in clinically relevant cell types and in vivo remains unknown. During my talk, I will present our efforts to improve and characterize the technology towards its in vivo application and further describe application of the platform for cancer immunotherapy. ”



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