Inherited retinal degenerations encompass a large number of untreatable genetic disorders leading to blindness. Although the initiation of the degenerating process is specific to a mutation, common mechanistic features were observed between acute injury, recessive and dominant retinal diseases (Zencak et al. PNAS 2013). We identified the Polycomb protein BMI1 to be a crucial regulator of the cell cycle reentry prior to the cell death induction. The goals of the project are to study other members of the Polycomb protein group and to unravel how they are regulated during the early stages of retinal dystrophies. Pharmacological and gene transfer therapeutic approaches will be tested during the course of this study.

To conduct the project, a postdoc with broad expertise in molecular and cell biology is required (WB, qPCR, RNAseq, ChIPseq, cloning will be applied). Skills in in vivo experimentation are also of high value in the evaluation of the candidacies.

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