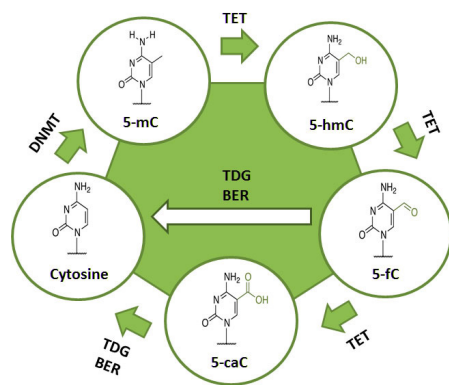


## Master Student Positions

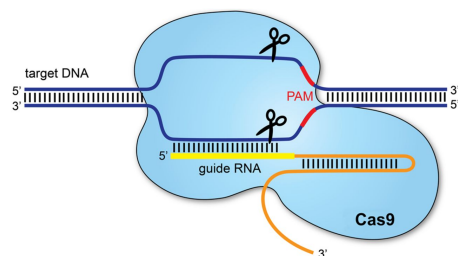
The Elling Lab at IMBA Vienna is searching for a Master student. Our group is specialized on various modalities of genetic screening as well as stem cell biology, reprogramming, and induced neurogenesis. We are currently offering two Master positions:

### DNA methylation:



DNA methylation is the bona fide epigenetic mark and plays a central role in gene- and repeat silencing. We recently performed a CRISPR screen and identified several novel factors that are synthetic lethal with the complete loss of DNA methylation in mouse embryonic stem cells. To follow up, we aim for metabolomic and transcriptomic analysis of these confirmed genetic interactors. Further, we wish to expand our finding to other cell lines and uncover the mechanistic principles.

### In vivo CRISPR screening:



CRISPR screening has revolutionized interrogation of gene function in various assays. However, genome wide screens at high resolution remain limited to simple 2D cell culture models, as in some scenarios with bottlenecks high-throughput screening is still challenging. These bottlenecks are generated by low infection efficiency, cell availability,

engraftment efficiency and differentiation bias. We have recently developed methods that empower screening also in systems with these kinds of bottlenecks, foremost in vivo. We are seeking for a student motivated to work with different model systems to further develop this new CRISPR-screening modality.

If you wish to apply for one of these positions, please contact me by mail and attach a **motivation letter** and **CV highlighting your relevant theoretical and practical background, e.g. cell culture experience**. Looking forward to hearing from you!

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