Precise control of gene expression is fundamental to cellular homeostasis and normal multicellular development. Central to the control of gene expression are gene promoters, where RNA Polymerase II engage to initiate transcription. In vertebrates, most gene promoters are embedded within epigenetically specified elements called CpG islands. Yet, despite their intimate relationship with gene promoters, how CpG islands contribute to gene regulation has remained enigmatic. Here I will describe our work examining how CpG island-binding proteins are leveraged to regulate gene expression. In particular, I will focus on an unexpected new role we have uncovered for the SET1 complexes in regulating transcription.

Thursday, 17.02.2022 13:00
Host: Patrick Cramer