



## Colloquium

# Reading DNA methylation in the brain

**Adrian Bird**

University of Edinburgh

Host: Gaia Novarino

Cytosine residues in DNA can be modified post-synthetically and this affects local protein-DNA interactions. For example, the MeCP2 protein specifically binds to methylated sites in the genome, potentially allowing it to interpret this epigenetic mark. Several clinical disorders are caused by mutations in the MECP2 gene, including the profound neurological disorder Rett syndrome. The equivalent phenotype in animal models can be reversed, suggesting that the protein fine-tunes neuronal function and that the human disorder may also be curable. Evidence will be presented that the root cause of Rett syndrome is failure of the primary function of MeCP2, which is to restrain gene expression in a DNA methylation-dependent manner.

**Monday, November 11, 2019 04:00pm - 05:00pm**

Raiffeisen Lecture Hall, Central Building



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

Please find a schedule of the ISTA Shuttle on our webpage:

<https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.