



## Seminar/Talk

# New CRISPR tools to probe the genetics of cell identity change

**Ulrich Elling**

IMBA - Institute of Molecular Biotechnology

Host: Simon Hippenmeyer

The basis for complexity of multicellular organisms is the diversity of cell types they are made of. Cell identities are set up by differentiation, yet must be faithfully maintained thereafter and a failure to do so can result in pathologic states such as cancer. Moreover, cell identities can be experimentally overwritten by nuclear transfer or the expression of transcription factors such as most famously the Yamanaka cocktail. Much progress was made in our understanding of how lineage defining transcription factors act, however additional players and mechanisms during lineage identity conversion remain largely elusive. I will discuss new tools for genome wide CRISPR screens, that we developed in the lab with the aim of refining sensitivity and reproducibility of this method. Using these tools we have begun to systematically probe the genetics of cell identity conversions and I will share recent progress on defining the path of induced neurogenesis by *Ascl1* and *Ngn2* expression.

**Wednesday, October 24, 2018 01:30pm - 02:30pm**

Mondi Seminar Room 2, 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.