

Life Sciences Seminar

Dissecting mechanisms that govern cellular plasticity

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Post-transcriptional mechanisms have the potential to influence complex changes in gene expression, yet their role in regulating stem cell potency and cell fate transitions remain largely unexplored. We have recently identified the RNA processing protein NUDT21 as a key factor that restricts cell identity by modulating the alternative polyadenylation of mRNAs encoding chromatin regulators. In addition, through systematic characterization of primed and nave human embryonic stem cells, we have uncovered an unexpected sensitivity of nave pluripotent stem cells to MAPK signal inhibition, which affects their proliferation rate, survival and genome integrity. Finally, we have demonstrated that the RNA helicase DDX6 acts as a key regulator of mammalian cell fate through its control of P-body assembly in both pluripotent stem cells and adult progenitor populations.

Monday, March 9, 2020 09:00am - 10:00am IST Austria Campus Mondi Seminar Room 2, Central Building



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