



Colloquium

The Institute Colloquium: The 4th dimension of transcriptional networks: TIME

Gloria Corruzi

New York University

Host:

Transcriptional networks operate dynamically *in vivo*, but capturing and modeling these dynamics is an experimental and computational challenge. This presentation focuses on time building predictive network models based on time-series transcriptome data, and perturbing transcription networks in time. The outcome is a dynamic hit-and-run transcription model with relevance across eukaryotes.

In this talk, Dr. Gloria Corruzi will probe dynamic transcription networks, computationally and experimentally. Using a machine learning approach called Dynamic Factor Graph, fine-scale time-series transcriptome data is used to infer network models that were validated both *in silico* using left-out data, and experimentally. To explore the molecular basis for underlying dynamic transcription, a cell-based assay was developed to follow the mode-of-action of a transcription factor (TF) within 1 minute of nuclear entry. This uncovered genome-wide support for a hit-and-run mechanism of transcription, in which *de novo* transcription initiated by a transient TF hit persists after the TF has run .

Monday, April 25, 2016 12:45pm - 01:45pm

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.