BIOENGINEERING SEMINAR

“Regulation of Translation in Relation to Cell Fate”

Friday, September 7, 2018 – 11:00
EPFL – room SV1717

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host: Prof. Félix Naef

Abstract

Cell type specification has been primarily attributed to epigenetic and transcriptional regulation. However, translation regulation is prominent in early development and several recent studies have linked alterations in protein synthesis to changes in cell functionality. Furthermore, evidence is accumulating that ribosome variants contribute to cell type-specific programs of gene expression. In this talk I would like to present our efforts in characterizing the regulation of mRNA translation in relation to cellular states, from yeast to man. I will describe our work on inferring determinants of protein synthesis rates in yeast, as well as the relationship between protein synthesis capacity and lifespan. I will also discuss aspects of translation regulation in mammalian system, specifically relative to cell type and the proliferation rate of cells.

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