



COMPUTATIONAL BIOLOGY WEBINAR @ IMSc

MACHINE LEARNING FOR ENGINEERING BIOLOGY IN THE ERA OF NETWORK SCIENCE

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Network biology is an investigative and constructive means of understanding the complexities of biology. Substantial progress in the field has resulted in the creation of systems driven synthetic gene circuits which can be used for a tunable response in a cell. These tunable elements can be applied to treat diseased conditions for a transition to a healthy state. Though in its nascent stage of development synthetic biology is beginning to use its constructs to bring engineering approaches using machine learning into biomedicine for treatment of infectious disease. Many engineered peptides/proteins have made their way to therapeutics and diagnostics. I will discuss few success stories from our lab in metabolic, signaling and transcriptional regulatory network wherein we have been able to modulate the gene expression from an anti-inflammatory to a pro-inflammatory phenotype in in vitro *L. major* infected macrophage model.

GOOGLE MEET LINK:

meet.google.com/afe-apxx-www