



## Life Sciences Seminar

# How do proteins evolve?

**Dan S. Tawfik (Weizmann Institute of Science)**

**Host: Fyodor Kondrashov**

I will describe findings and models regarding how new proteins functions evolve, via gradual, small changes in sequence and structure. However, the mechanisms of such evolutionary micro-transitions do not explain the macro evolutionary transitions how (and whether) did proteins emerge de novo? The size, structural complexity, and functional near-perfection of proteins, makes this Q particularly daunting. In the second part of my talk I will discuss our findings with respect to the de novo emergence of functional, globular proteins from short peptides, and specifically, new insight regarding the emergence of the earliest proteins.

**Tuesday, December 18, 2018 02:00pm - 03:00pm**

IST Austria Campus Seminar Room, Lab Building East



This invitation is valid as a ticket for the IST Shuttle from and to Heiligenstadt Station. Please find a schedule of the IST Shuttle on our webpage: [http://ist.ac.at/fileadmin/user\\_upload/pdfs/IST\\_shuttle\\_bus.pdf](http://ist.ac.at/fileadmin/user_upload/pdfs/IST_shuttle_bus.pdf) The IST Shuttle bus is marked IST Shuttle (#142) and has the Institute Logo printed on the side.