

**The Hebrew University of Jerusalem , Special Biological
Physics Seminar**

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Danciger B Building, Seminar room

"Fundamental Constraints on Ribosome Design and Synthesis"

Exponential growth is perhaps the most well-known characteristic of bacteria. At this phase, synthesis rates of every constituent in the cell are matched to allow a clock-work doubling of the individual organism and, consequently, of the population as a whole. This marvelous synchrony, combined with selective pressure towards maximal growth, pose generic constraints on the design and synthesis of the ribosome --- a molecular machine that serves as the primary site of protein production in living cells. I will discuss work in progress done along these lines. Prior knowledge of the subject will not be assumed.