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הרצאת אורח

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הנושא:

"The nuclear pore complex directs a novel proteostatic stress response in yeast"

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סגל וסטודנטים מוזמנים להשתתף

Abstract

The nuclear pore complex (NPC) governs the transport of macromolecules into and out of the nucleus. We are currently studying a novel proteostatic stress response that is directly governed by the NPC, and which differentially controls the import rates of two core receptor-mediated cargo targeting pathways. This is the first instance of the NPC exerting direct control over nuclear targeting pathways under physiologically relevant conditions. Interestingly, we have identified an unexpected role in this regulatory circuit for proteins previously implicated in vesicular trafficking. These findings support the hypothesis that the NPC is functionally analogous to the membrane coats built from subunits such as clathrin and COPII coatamers and, in fact, shares a number of factors that participate in vesicular and nuclear trafficking.

About the speaker: *David Goldfarb, Ph.D. has been a professor in the Biology Department at the University of Rochester since 1988. Before that he earned his Ph.D. at the University of California, Davis, and did postdoctoral work at Stanford University. His group at Rochester has always worked on the molecular mechanism of nuclear transport and, more recently, on a novel autophagic process that degrades nonessential nuclear components. In 2010 he founded an early stage biotech company that exploits a high throughput yeast lifespan assay to discover small molecule drugs for age-associated diseases.*