



האוניברסיטה העברית - הפקולטה לחקלאות המכון לביוכימיה, מדעי המזון והתזונה

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הנושא:

On the genetics and epigenetics of how new gene regulation network evolves in yeast

המפגש יתקיים

ביום א', 3 נובמבר 2013, בשעה 9:00

במועדון הסגל

Abstract:

Variation in gene regulation is prominent for evolution of new forms and species. Gene regulation can vary due to genetic and epigenetic changes. We know much about how gene regulation programs change the physiology of cells in response to environmental changes, but much less about how new gene regulation programs evolve during evolution to allow adaptation to environmental challenges. To study how yeast cells adapt to a regulatory challenge, we placed the essential gene *HIS3* exclusively under the *GAL1* promoter. The *GAL* system repression in glucose created unforeseen challenges for these genome-rewired cells. Following adaptation in the lab, we found a process that is quite different from the expected based on the standard evolutionary theory. I will present the main differences and the possible role epigenetics has in coordinating between environmental and genetic changes.

סגל וסטודנטים מוזמנים להשתתף