

האוניברסיטה העברית - הפקולטה לחקלאות המכון לביוכימיה, מדעי המזון והתזונה



Yonatan B. Tzur, PhD

Department of Genetics
Harvard Medical School

<http://connects.catalyst.harvard.edu/Profiles/display/Person/16528>

הנושא:

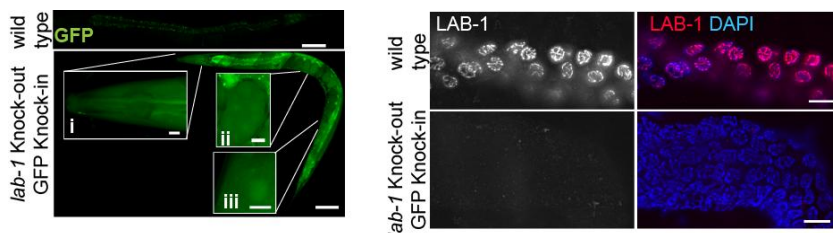
To hold and let go: Genome engineering and cytology uncovers how early sister chromatid cohesion dynamics enable the meiotic program

המפגש יתקיים

ביום ב', 30 דצמבר 2013, בשעה 9:30
מועדון סגל

Abstract:

Timely establishment and removal of sister chromatid cohesion are required for successful meiosis and subsequent differentiation into sperm and eggs. We deciphered the way stepwise removal of cohesion is achieved between the two meiotic divisions in the worm *C. elegans*, and identified the kinases and phosphatases that define cohesion protection vs. cohesion removal regions. Unexpectedly, we found that this interplay occurs already at the onset of meiosis and not only during chromosome segregation, thus showing that the same mechanism used to landscape sister binding regions globally is also used locally to facilitate the progression of the meiotic program. To verify our *in-vitro* analysis of the protein domains needed to recruit the phosphatases, we developed a robust and efficient way to seamlessly engineer the *C. elegans* genome by the CRISPR-Cas technology, and we demonstrate how this method can now serve as a fast and easy way to test *in-vitro* based hypotheses.



סגל וסטודנטים מוזמנים להשתתף

לתיאום פגישה: ido.braslavsky@mail.huji.ac.il