



האוניברסיטה העברית בירושלים
הפקולטה לחקלאות, מזון וסביבה ע"ש רוברט ה. סמית
המכון לביוכימיה, מדעי המזון והתזונה

הרצאת התקדמות לתואר שלישי

Oksana Katz

Under the supervision of
Prof. Ram Reifen and Prof. Aaron Lerner

הנושא:

**Anemia of chronic Inflammation -
the fate of iron related proteins**

המפגש יתקיים

ביום ראשון, 7 יוני 2015, בשעה 9:00
מועדון סגל

Abstract:

The inflammatory process in the intestine leads to the development of anemia due to iron sequestration and decrease in iron availability. However, treatment with iron supplementation can further aggravate inflammation followed by a subsequent escalation in iron sequestration which enhances the anemic state. In this presentation we shall try to explain the effect of iron on intra-enterocyte iron regulatory proteins and the various pathways we studied, to confirm whether iron supplementation is resulting in inflammation as well as our exploration to revert this inflammation, by using β -carotene, or vitamin A. Here, we identified a role nitric oxide and IL8 play as pro-inflammatory agents on iron metabolism and intracellular iron sequestration. Most importantly, we suggest that iron acts as pro-inflammatory agent that is additive to pro-inflammatory cytokines and potentially aggravating inflammation. Iron is "locked" inside the epithelial cells probably secondary to increase of both H- and L-ferritin (iron storage proteins). The phenomenon is attenuated by using vitamin A. Both ex-vivo and in vitro models will be presented.

סגל וסטודנטים מוזמנים להשתתף