



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



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הנושא:

Cellular mechanisms involved in the disruption of the Intestinal barrier during Necrotizing Enterocolitis

המפגש יתקיים

ביום א', 14 דצמבר 2014, בשעה 9:00

מועדון סגל

(12/14/2014, 9:00, Faculty Club)

Abstract:

Necrotizing Enterocolitis (NEC) is the most common and severe intestinal inflammatory disease occurring principally in very low birth weight (VLBW) premature infants. In my talk I will present three different approaches aiming at elucidating putative mechanisms associated with the pathogenesis of NEC.

The first part of my talk will address the effect of TIMP-1, a molecule naturally found in human breast milk (HBM), on the integrity of the tight junction proteins and the gut barrier. Our results allow us to suggest a putative mechanism by which HBM may protect from NEC development.

In the second part of my talk I will present a novel surface plasmon resonance (SPR) apparatus, which was developed for the study of cellular dynamics. The results obtained by SPR analyses were based on the SPR system's ability to track very subtle alternations in monolayer rearrangement concomitantly with the assessment of the integrity of the cellular junctions in a NEC *in vitro* model.

In the third part of my talk I will present results dealing with the effect of the microbial lipopolysaccharides (LPS), on the tight junction integrity and epithelial monolayer permeability in a NEC *in vitro* model. I will concentrate on the transcriptional effects of LPS on several tight junction proteins as well as the effect on the permeability of the epithelial monolayer in a NEC *in vitro* model.

סגל וסטודנטים מוזמנים להשתתף