



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



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<http://www.agri.gov.il/people/585.aspx>

### הנושא:

**The molecular and enzymatic basis of bitter/non-bitter flavor of citrus fruit; evolution, structure and function of specialized branch-forming glycosyltransferase**

### המפגש יתקיים

**ביום א', 8 יוני 2014, בשעה 9:00**

**מועדון סגל**

### Abstract:

Flavonoids are a diverse group of plant secondary metabolites, which assume a broad range of physiological roles in plants. The vast majority of flavonoids in plants are glycosylated, including mono di or even tri-saccharides attached to a single position, contributing to their compartmentalization, chemical/physical properties and affecting their biological function. Our research focuses on flavonoid glycosylating enzymes (glycosyltransferases) from citrus, including enzymes involved in the biosynthesis of a unique subfamily of flavonoids that determine the bitterness of citrus fruit. Our results suggest that inheritance and mutations in glycosyltransferase, combined with selection under domestication, constitute the basis for the bitterness/non-bitterness of the various citrus species/varieties known today. In addition, we are studying enzyme domains that direct specificity of these disaccharide-forming glycosyltransferases using homology-based structural modeling and rationally designed mutations. Results and insights from this work will be presented.

סגל וסטודנטים מוזמנים להשתתף

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