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

Dr. Dmitry Tsvelikhovsky

The Institute for Drug Research
School of Pharmacy, Faculty of Medicine
The Hebrew University of Jerusalem

http://tsvelikhovskyresearchgroup.shteeble.com/

הנושא:

Three-beat Composition of Spiranoid Lactones: Rapid Access to Natural and Never-before Observed Frames

המפגש יתקיים
ביום א', 16 נובמבר 2014, בשעה 9:00
מועדון סגל
(11/16/2014, 9:00, Faculty Club)

Abstract:

Many important biochemical compounds and drugs of natural origin contain tricyclic angularly fused ring structures. Numerous examples occur among the carbohydrates, terpenoids, vitamins, alkaloids, glycosides and antibiotics. The presence of *spiro-fused* based structures in such diverse types of compounds is strongly indicative of the profound effects such structures exert on physiological activity, and recognition of this is reflected abundantly in the efforts to find useful therapeutic agents. Because natural products are produced in small quantities, there's a great interest in mass-producing them via synthetic pathway. Unfortunately, access to these target molecules and their structural analogues (potential pharmaceuticals and drugs candidates), is hindered by their multistep syntheses. Though elegant and creative, many of existing methods require harsh conditions, protecting group manipulations and purification after each synthetic step (with overall low yields). In light of these considerations, we are prompted to unite the tricyclic angularly fused natural products and artificial (never-before synthesized) analogues under common synthetic strategy, and devise a simple means for building the spiro-fused skeletons in a rapid and efficient manner. The tricyclic angularly fused compounds might be derived from a simple precursor via controlled intramolecular cascade cyclizations. We designed and constructed the Key molecules that serve as operationally acceptable precursor for the construction of mentioned compounds. Our retro-synthetic analysis took cognizance of this framework, discovering that via simple and straightforward cascade cyclizations, the desired systems might be constructed.

סגל וסטודנטים מוזמנים להשתתף
לתיאום פגישה: yaelf@savion.huji.ac.il