

From the Dean's office

- **Division of Science Faculty Retreat**
Friday, October 20, 2017, 9:30 a.m. – 4:00 p.m.
Center for Worker Education (CWE)
25 Broadway, New York, NY 10004
To register, please go to <https://goo.gl/93p8ot>

Biology News

- Biology Colloquium
Monday, October 16, 2017, 1:00 p.m., MR-801
Speaker: Dr. Ye He, ASRC
Title: From form to function, from function to therapy: ion channels in mechanosensation and brain tumor
- CCNY Biology Club presents:
Dr. Lohman on landing an awesome internship!
Thursday, October 19, 2017, 12:30 p.m., MR-502
Come join us to learn tips on where to look for opportunities, how to get that reference letter & ultimately earn the internship you desire!
- David Lohman, Associate Professor of Biology at The City College of New York's Division of Science, is co-author of a landmark paper on butterflies "An illustrated checklist of the genus *Elymnias* Hübner, 1818 (Nymphalidae, Satyrinae)"



Click here for the research article:
<https://zookeys.pensoft.net/articles.php?id=12579>

Chemistry and Biochemistry News

- Salzberg Chemistry Seminar
Monday, October 16, 2017, 12:00 p.m., MR-1027
Speaker: Seth Herzon, Yale University
Title: Synthetic Approaches to the Study of Gut Microbiota-Associated Colorectal Cancer
Abstract: Bacteria on and within the us (the microbiota) influence human physiology, therapeutic responses, and disease states. Certain strains of commensal *E. coli* encode a family of small molecules - precolibactins - that have been implicated in colorectal cancer formation. However, efforts to elucidate the structure and mechanism of action of the precolibactins have been impeded by their exceedingly low levels of natural production and instability. In this lecture I'll describe our efforts to elucidate the structures of the most complex precolibactins by chemical synthesis. The studies have enabled the first mechanism of action investigations of this family of natural products and support a role for these metabolites in cancer progression. Our studies have also provided important insights into precolibactin biosynthesis and suggest most if not all isolates to date are "non-natural natural products" deriving from the use of genetically-modified strains of *E. coli*.

Chemistry and Biochemistry News cont'd

- Seminar in Biochemistry, Biophysics & Biodesign
Wednesday, October 18, 2017, 12:00 p.m.
ASRC Auditorium
Speaker: Mei Hong, Professor, Department of Chemistry, MIT, Cambridge, MA
Title: Structure and assembly of membrane proteins and amyloid fibrils from solid-state NMR

Mathematics News

- Join the Math Club and the Association for Women in Mathematics (AWM) for Tea Time
Every Tuesday from 1:00 p.m. to 2:00 p.m.
NAC 6/270B
- Mathematics Colloquium
Thursday, October 19, 2017, 12:30 p.m., NAC 6/111
Speaker: Eli Glasner, Tel-Aviv University
Title: On the disjointness property of groups
Abstract: In his seminal 1967 paper "Disjointness in ergodic theory, minimal sets, and a problem in Diophantine approximation" Furstenberg introduced the notion of disjointness of dynamical systems, both topological and measure preserving. In this paper he showed, among many other beautiful results, that for the integers the Bernoulli system is disjoint from every minimal system, and then applied this approach to prove his famous Diophantine theorem: If S is a non-lacunary semigroup of integers and α is an irrational, then $S\alpha$ is dense in the circle \mathbb{R}/\mathbb{Z} . I will review the development of these ideas during the following decades and introduce a new class of groups, DJ-groups, to which the main disjointness results extend. Amenable and residually finite groups are DJ, and the DJ property extends through short exact sequences. In fact, we don't know if there is any group which is not DJ. This is a joint work in progress with Benjy Weiss.

Physics News

- Physics Colloquium
Wednesday, October 18, 4:00 p.m. – 5:00 p.m.
MR-418N
Speaker: Prof. Senthil Todadri, Massachusetts Institute of Technology
Title: Quantum spin liquids
Abstract: Magnetic ordering in quantum solids provides a powerful example of the phenomena of the principles of broken symmetry and long range order. Modern work in quantum condensed matter physics has however revealed the inadequacy of these concepts in capturing the essence of many different phenomena. A different set of concepts - centered around the notion of quantum entanglement on a macroscopic scale - is proving to be crucial in describing these phenomena. I will describe developments in phases of magnetic quantum materials - known as quantum spin liquids - which beautifully illustrate the physics of such 'highly entangled' states of matter.
- Professor Michael Lubell's op-ed letter to The Hill "Pulling out of Iran deal would be a true American embarrassment" For more information click here: <https://goo.gl/w66vQi>