November 4, 2019

Dear ICS members,

It is my great pleasure to announce that the winners of the 2019 ICS Prize for an Excellent Graduate Student are Hadas Alon (Bar-Ilan University), Roi Asor (The Hebrew University), Or Eivgi (Ben-Gurion University), Ori Green (Tel Aviv University), Dvir Harris (Technion), Diwakar Kashyap (Ariel University) and Hisham Mazal (Weizmann Institute).

Hadas Alon specializes in the manipulation of surfaces using molecular chemistry under the supervision of Prof. Chaim N. Sukenik and Prof. Doron Naveh. Her Ph.D. research focuses on surface chemistry on silicon and on 2D materials, combining spectroscopic and electrical characterization. Her work on various kinds of surface modifications, including doping of graphene, has been published in high impact journals such as ACS Nano.

Roi Asor discovered the energy landscapes and assembly pathways of Hepatitis B capsids, as well as the assembly and disassembly mechanisms of wild type simian vacuolating virus 40 under the supervision of Prof. Uri Raviv. These processes were monitored by time-resolved X-ray scattering methods, corroborated by transmission, cryogenic electron microscopy. By integrating theory of macromolecular self-assembly with umbrella sampling of Monte Carlo, maximum entropy, and advance X-ray scattering data analysis tools, he determined the structures and mass distribution of intermediates as a function of time.

Or Eivgi carries out his Ph.D. research under the supervision of Prof. N. Gabriel Lemcoff. He studies the development of novel selective photochemical reactions using strongly absorbing molecules, known as molecular UV filters, and their applications to organic synthesis and catalysis, especially olefin metathesis. Additionally, he studies the development of new photoswitchable ruthenium phosphate complexes for photoinduced olefin metathesis.

Ori Green carries out his Ph.D. research under Prof. Doron Shabat. He obtained his B.Sc. degree in chemistry from Tel Aviv University (2013) and M.Sc. in organic chemistry (2015) at the same group. His research deals with the development, design and synthesis of novel chemical tools relevant for biological applications, focusing on cheluminescent molecular probes capable of detecting and imaging relevant biological markers. He has published in ACS Cent. Sci., JACS, Angew. Chem. and other journals, including three patent applications.

Dvir Harris carries out his Ph.D. work under the supervision of Prof. Noam Adir, focusing on the structure and function of the cyanobacterial photosynthesis from the perspective of its light harvesting antenna, known as the phycobilisome. He tried to identify the structural origin of the orange carotenoid protein (OCP). Based on his structural results emerged from mass-spectrometry combined with bioinformatics, he was able to suggest a model for the overall assembly of the phycobilisome-OCP complex. A second major thrust of his research is taking advantage of the extraordinary energy transfer efficiency in the phycobilisome to produce a bio-based device.

Diwakar Kashyap received B.Sc. and M.Sc. degrees (2013) in nanotechnology from the University of Rajasthan, India, on electrolyte material for low temperature solid oxide fuel cell. In 2015 he joined the fuel cells and electrochemistry group as a Ph.D. student under Prof. Alex Schecthter, working on the development of an efficient catalyst for electro-oxidation of dimethyl ether and methyl Formate, which was recently commercialized by an Israeli company. He has published of 12 research papers in leading journals and 3 international patents.

Hisham Mazal received his B.Sc. degree in Biotechnology Engineering with distinction from ORT Braude College of Engineering. During his undergraduate studies he did an internship at the Department of Pharmacology and Physiology at the university of Rochester, NY, USA. He joined the group of Prof. Gilad Haran for a direct track Ph.D. at the Department of Chemical and Biological Physics. He helped to develop a tool that allows researchers to observe and measure dynamics of individual enzymes during their active cycle on the microsecond timescale. Using this tool, he was able to demonstrate the involvement of ultrafast conformational dynamics in allosteric regulation of CjP8, a complex protein machine that rescues aggregated proteins. Hisham received the John F. Kennedy Award of the Weizmann Institute for his outstanding Ph.D. research.

The award ceremony will take place in February 18, 2020 in the 85th ICS Annual Meeting.

Congratulations to Hadas, Roi, Or, Ori, Dvir, Diwakar and Hisham for their achievements!

Ehud Keinan

Hadas Alon
Bar-Ilan University

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