



Meital Reches- Biography

Meital Reches is faculty member of the Institute of Chemistry, the Hebrew University of Jerusalem. She received her Ph.D. (*with distinction*) in 2007 from the Department of Molecular Microbiology and Biotechnology, Tel Aviv University. In 2007-2010, she was an EMBO and a HFSP postdoctoral research fellow at the Chemistry Department, Harvard University. Meital Reches joined the Institute of Chemistry of the Hebrew University of Jerusalem as a faculty member in October 2010. Her research focuses on understanding, controlling and developing biomolecular self-assembly processes and generating new functional materials. Specifically, her group studies these biomolecular assemblies at the interface with inorganic surfaces. One example of such system, which was developed in her lab, is a short peptide that self-assembles into a coating on various surfaces such as metals, oxides, and polymers. The coating prevents the adsorption of proteins to the surface and significantly reduces the adsorption of different bacterial strains and fungi (Maity et al. *Chem. Commun.* 2014, Reches, PCT patent application 2014).

The Reches group also studies the interactions between peptides and inorganic surfaces using single molecule force spectroscopy. The main goal is to understand the underlying forces that direct these interactions (Razvag et al. *Langmuir* 2013, Maity et al. *Phys. Chem. Chem. Phys.* 2015). This information is very important for the design of new antifouling materials, novel implants and biomaterials and for the development of artificial composite materials. This is due to the involvement of these interactions in all of these areas.