מכון ויצמן למדע
WEIZMANN INSTITUTE OF SCIENCE

Prof. Irit Sagi
Department of Biological Regulation
Dean of the Feinberg Graduate School

Born in Israel, Prof. Irit Sagi attended university in Washington, DC, receiving a BSc degree from American University (1988), and PhD degrees in biophysics/bioinorganics from Georgetown University (1993). That same year, she returned to Israel to perform postdoctoral research in the group of Prof. Ada Yonath, laureate of the 2009 Nobel Prize in Chemistry at the Weizmann Institute of Science. Sagi continued her postdoctoral studies at the Max-Planck Institute in Berlin, returning to join the faculty of Chemistry, Department of Structural Biology of the Weizmann Institute in 1998. Between 2005-2006 she spent a sabbatical as a visiting professor at Harvard University and at Novartis research institute. Prof. Sagi is the incumbent of the Maurizio Pontecorvo Professorial Chair. She has more than 75 publications in peer reviewed scientific journals and books. Prof. Sagi received the Weizmann Institute Scientific Council Prize for Chemistry in 2003. In 2006 she won the “Inventor of the year award” from YEDA Ltd. Since 2009, Prof. Sagi has been the president of the Israel Biophysical Society. Since 2012 she has been serving as the scientific coordinator of the Institute Pasteur-Weizmann council. Prof. Sagi is the recipient of the 2013 Juludan Prize award for outstanding research projects in the exact sciences and advanced medicinal technologies. Prof. Sagi is chairing the new “Wizo-Weizmann Institute Education Center” for the promotion of women and young scientists. In 2014 Prof. Sagi was appointed as the Dean of the Feinberg Graduate School in the Weizmann Institute of Science.

Prof. Irit Sagi is developing and applying unique, multidisciplinary and biophysical approaches to investigate tissue and extracellular remodeling molecular processes. Merging together real-time spectroscopic and molecular imaging approaches, she was the first to reveal the complex dynamic molecular nature of matrix metalloproteinases (MMPs), a group of human enzymes linked to cancer and autoimmune diseases. Insights derived from these studies led her to design a new class of inhibitory antibodies that thwart the negative action of these enzymes. These prototype antibodies are currently being developed for clinical use in inflammatory and cancer diseases. Prof. Sagi continues to develop novel integrated experimental tools tailored to decipher the extracellular matrix mocelular remodeling code at near atomic resolution in healthy and diseased tissues. Her unique biophysical approach is used to decipher molecular mechanisms of dysregulated tissue proteolysis/remodeling and to develop a new generation of safe and effective drugs.