



Professor Irit Sagi
Department of Biological Regulation
Vice President, Technology Transfer

Born in Israel, Prof. Irit Sagi attended university in Washington, DC, receiving a BSc degree in Physical Chemistry from American University (1988), and PhD degree in biophysics/bioinorganics from Georgetown University (1992). She returned to The Weizmann Institute to perform postdoctoral research in the group of Prof. Ada Yonath, laureate of the 2009 Nobel Prize in Chemistry. Prof. Sagi continued her postdoctoral studies at the Max-Planck Institute in Berlin, and joined the faculty of Chemistry at the Weizmann Institute in 1998. Between 2005-2006 she spent a sabbatical as a visiting professor at Harvard University and at Novartis research institute, USA. She became the dean of the Feinberg Graduate School in 2014 and is the incumbent of the Maurizio Pontecorvo Professorial Chair. In December, 2019, she finished her term as dean and assume the position of Vice President for Technology Transfer at the Weizmann Intitute and the chair of YEDA Ltd board of directors.

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 extracellular remodeling enzymes including matrix metalloproteinases and lysyl oxidases (MMPs and LOX), a group of human enzymes linked to, developmental biology, cancer, inflammation, fibrosis and infectious 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 and biological inhibitors are currently developed for clinical use for human inflammatory, and cancer diseases. Prof. Sagi continues to focus her research efforts on novel integrated experimental tools tailored to decipher the extracellular matrix molecular remodeling code and molecular landscapes in healthy and diseased tissues. Specifically, she is using her biological inhibgitors as molecular probes together with various omics to unravel new cellular and molecular pathways at single cell as well as at tissue levels. Recently, she demonsttraed a novel use for proteases in promoting and increasing the rate of embryo implantation in mammals. This discovery led her to establish a new startup company, NanoCell, aiming at developing this technology in Livestock and human. Prof. Sagi is the incumbent of the Maurizio Pontecorvo Professorial Chair. She has more than 200 publications in peer reviewed scientific journals and editor of two books. Prof. Sagi earned the Israel Chemical Society ADAMA prize in 2021, the Landau Prize of Mifal Hapais for Biochemistry in 2017 and the Juludan Prize for outstanding research projects in the exact sciences and advanced medicinal technologies in 2013. In 2006, she was named Inventor of the Year by the Yeda Ltd. Three years prior, she was awarded the Weizmann Institute Scientific Council Prize for Chemistry, and in 2000, she received the Jakubskind-Cymerman Research Prize. From 2009-2014 she has been the president of the Israel Biophysical Society and she is currently the president of the Israel Matrix Biology Society. Prof. Sagi is a member of the International Board of Directors of Future Fund for promoting Israel-Germany relations and she is a member of the UK Israel Science Council.