Professor Levenberg conducts interdisciplinary research on stem cells and vascular tissue engineering. She did her PhD at the Weizmann institute on cell adhesion and her post doctorate research at MIT on stem cells tissue engineering with Professor Robert Langer. In 2004 she joined the Technion Faculty of Biomedical Engineering. During 2011-2012 she spent her sabbatical year as a visiting professor at the Wyss institute for Biology inspired Engineering at Harvard University, and during summer 2017 she spent a sabbatical at the University of Western Australia as a winner of the Raine Visiting Professor award. In her research, she studies the mechanical control of tissue assembly in vitro and in vivo with a focus on vessel network formation and anastomosis in engineered tissues. Her research showed that it is possible to create complex tissues including blood vessels in a laboratory and that these engineered tissue-constructs can integrate with the host when implanted. She is also developing micro bioreactors and nanolitre droplet devices for stem cell growth and manipulations and for early diagnostic applications. Prof Levenberg received the Krill Prize for excellence in scientific research by the Wolf Foundation, and was named by Scientific American as a "Research Leader" in Tissue Engineering for her studies on vascularization of engineered tissues. She has been awarded the France-Israel Foundation Prize and the Italian Excellence for Israel Prize. She won the Teva Research Prize and was awarded the Juludan prize. In 2018 she has been awarded the Rappaport Prize for Biomedical Sciences - Established Investigator. Prof. Levenberg is currently the elected Dean of the Biomedical Engineering Faculty at the Technion and a member of the Israel National Bioethics Committee. She leads The Rina & Avner Schneur Type II Diabetes research center at the Technion and the Technion center for 3D Bioprinting.