Silicone-based composites as surgical breast models for oncoplasty training

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Lack of cadavers and fresh tissue/organ models hinders the quality of medical education; therefore, there is a need for a reliable and sustainable training medium for evergrowing number of medical students and personnel. Surgitate designs and fabricates silicone-based surgical models are engineered to simulate mechanical responses of real organs to incision, dissection, and suturing. Surgitate’s product portfolio comprises skin, breast, vascular, and microsurgery models. Different suturing techniques, benign mass removal, and complicated oncoplastic surgery can be practiced on these models. Surgitate aims to improve the quality of surgical trainings via a practical, affordable, and tactile simulation platform.

Biography
Özge Akbulut is an Assistant Professor at Sabanci University since February 2012. She received her BS in Material Science and Engineering at Sabanci University in 2004 and her PhD from Massachusetts Institute of Technology (MIT, 2009) which focused on cost-effective fabrication of biomolecular devices and surface science. She continued her studies as a Post-doctoral fellow in the Whitesides Group at Harvard University (2009–2011) on developing tools/techniques for resource-limited settings. Her main research interests are rheology modifiers and silicone-based composites. She also founded a company, Surgitate, on tactile surgical training platform, in 2014.

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