Supplementary Information

Multifunctional degradable electronic scaffolds for cardiac tissue engineering

Ron Feiner[1,2*], Sharon Fleischer[1,2,*], Assaf Shapira[1,2], Or Kalish[1] and Tal Dvir[#,1,2,3,4]

[1]The School for Molecular Cell Biology and Biotechnology, Faculty of Life Sciences, Tel Aviv University, Tel Aviv 69978, Israel.

[2]The Center for Nanoscience and Nanotechnology, Tel Aviv University, Tel Aviv 69978, Israel

[3]Department of Materials Science and Engineering, Faculty of Engineering, Tel Aviv University, Tel Aviv 69978, Israel.

[4]Sagol Center for Regenerative Biotechnology, Tel Aviv University, Tel Aviv 69978, Israel

[*]These authors contributed equally to this work

[#]Correspondence to Tal Dvir (tdvir@post.tau.ac.il)

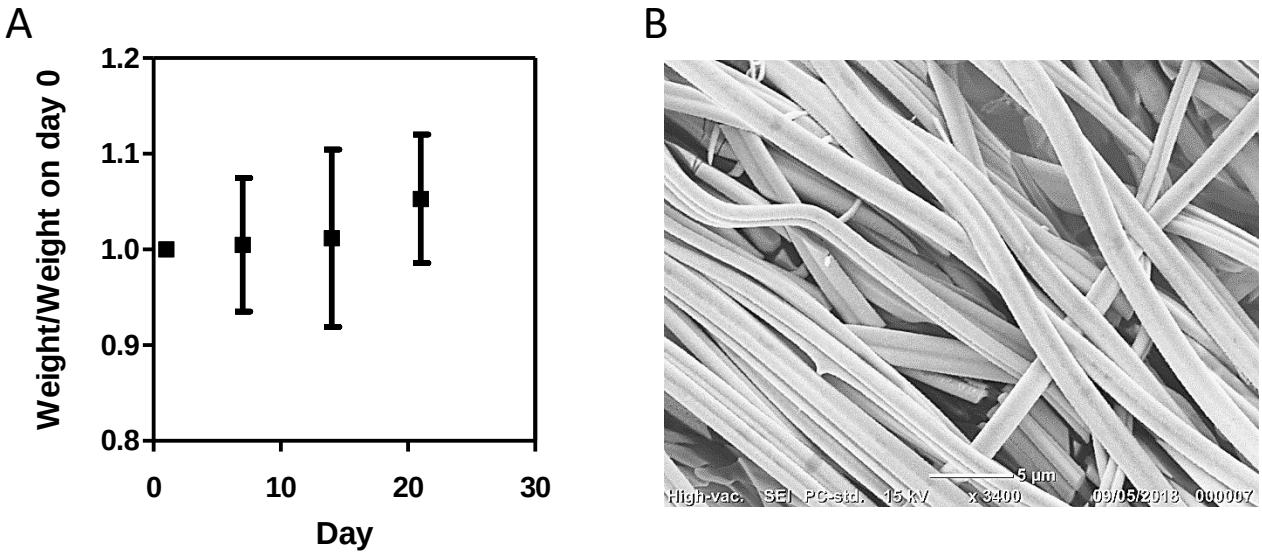

Figure S1. In vitro degradation of the gold coated devices. A. Device weight after 21 days in *in*-vitro conditions. B. Scanning electron micrograph of the electrospun fibers in the device after 21 days in *in-vitro* conditions.

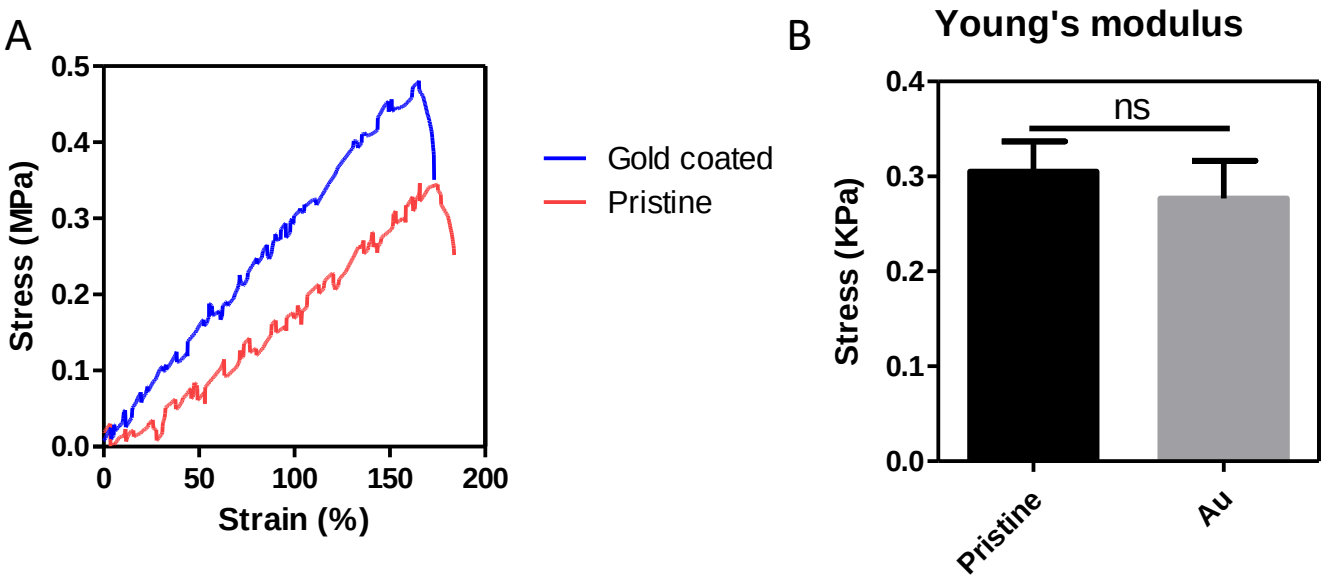

Figure S2. **Mechanical characterization.** A. Stress strain curves for gold coated and pristine devices. B. A comparison of the Young's moduli of the pristine and gold-coated devices

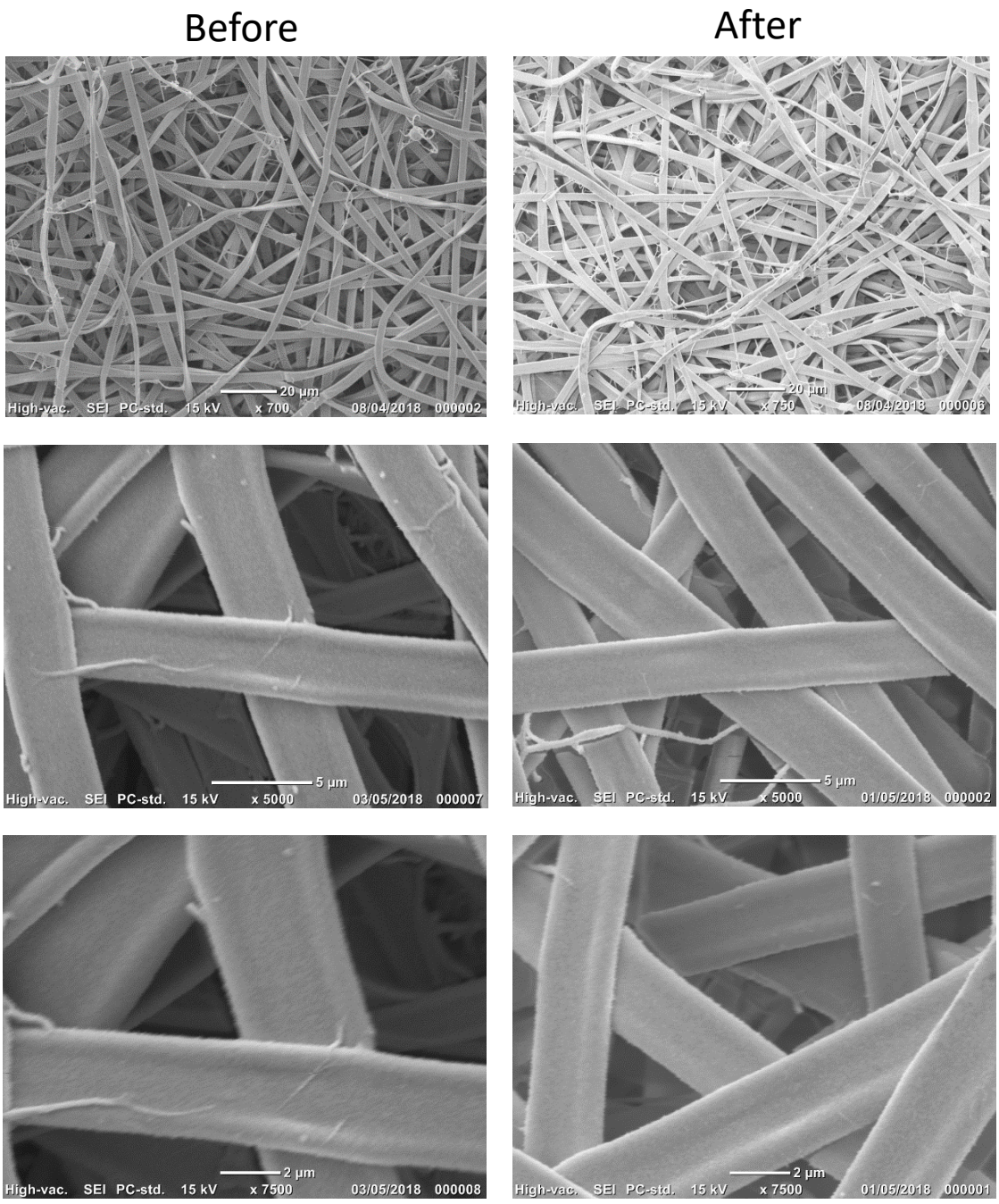

Figure S3. Albumin fibers before and after mechanical stretching. Scanning electron micrographs of electrospun albumin fibers before and after applying cyclical strain at 20% for 30 cycles.