Supplementary Materials: Polymer-Based Functional Cantilevers Integrated with Interdigitated Electrode Arrays—A Novel Platform for Cardiac Sensing

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Table S1. Details of dimensions of the IDE fabricated.

IDE No.	No. of Fingers (N)	Finer Length (L μm)	Finger Width (W μm)	Spacing (S μm)	Electrode Length (mm)	K Value
Type 1	60	495	5	5	150	0.68
Type 2	30	990	10	10	297	0.70
Type 3	30	985	15	15	443	0.70

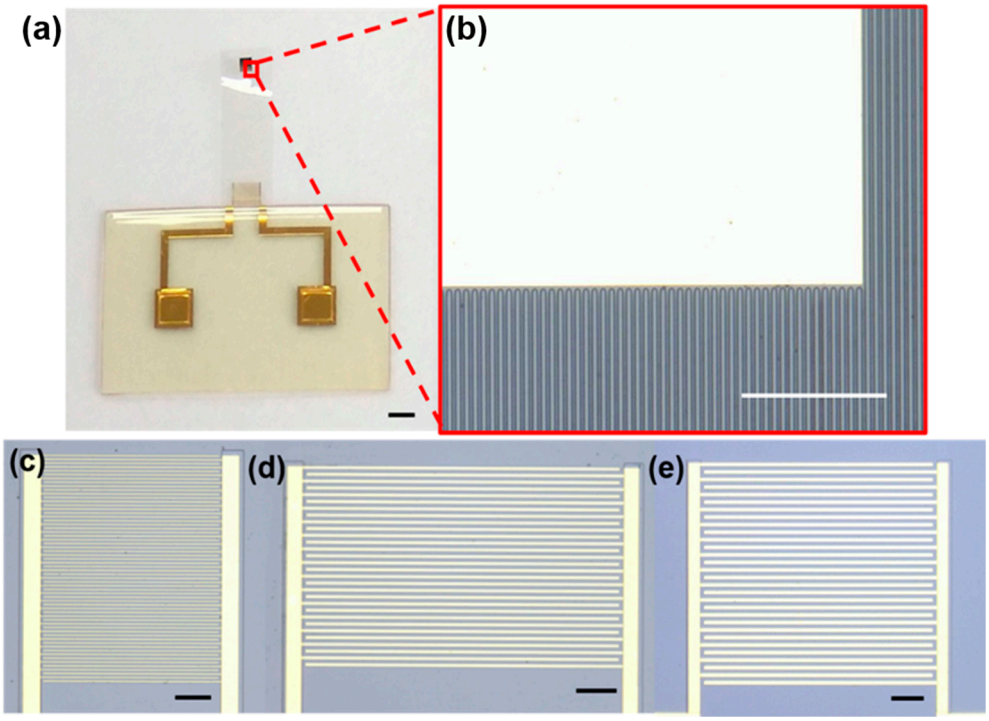

Figure S1. (**a**) Optical images of the fabricated device (scale bar = 1 mm), (**b**) optical image of the microgrooves pattern on cantilever (**c**) optical image of type 1 IDE, (**d**) type 2 IDE, (**e**) type 3 IDE fabricated on the cantilever (scale bars = 100 μm).

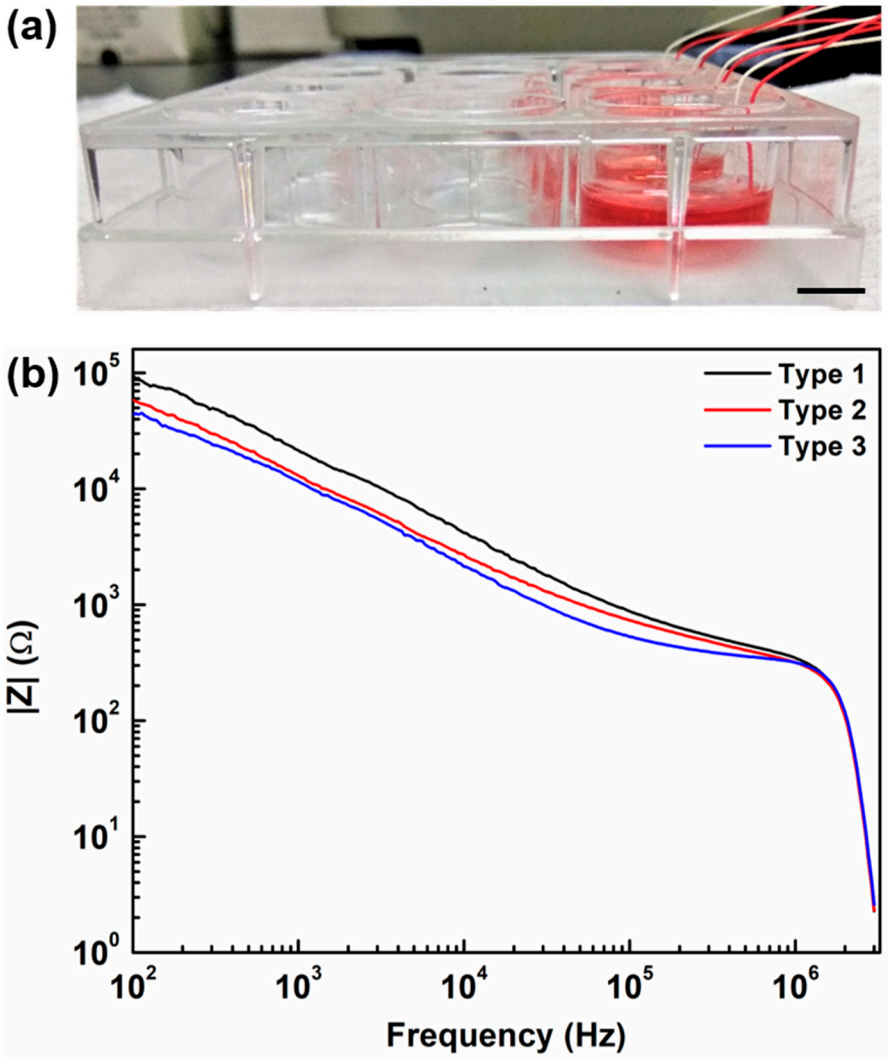

Figure S2. (**a**) Optical image of the devices in cell culture medium (scale bar = 10 mm), (**b**) bode plot of the impedance spectra of IDE types 1, 2 and 3.

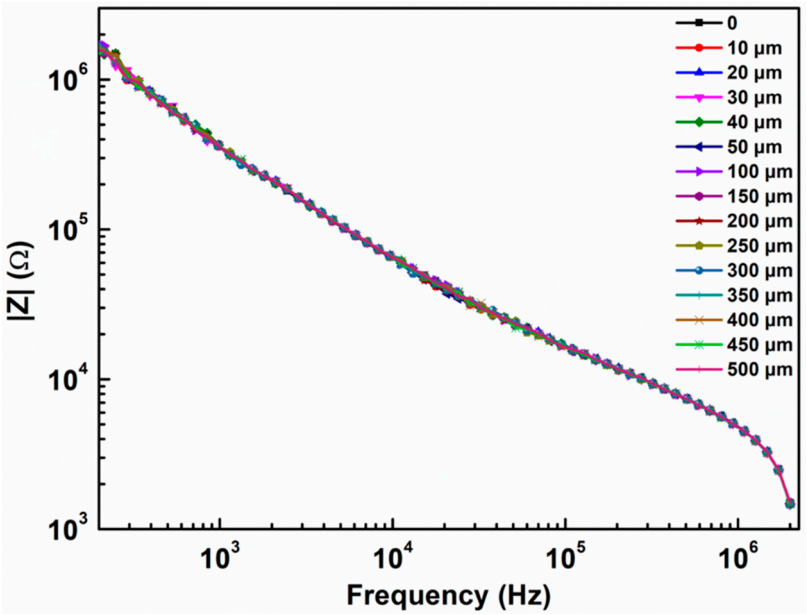

Figure S3. Measurement of impedance spectra at different cantilever displacements from 0 to 500 µm.

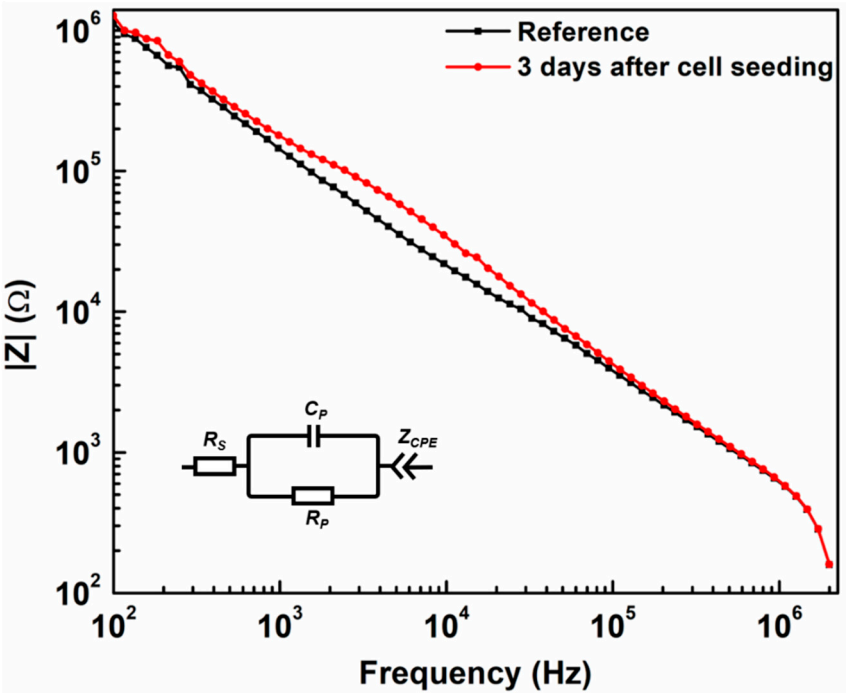

Figure S4. Impedance spectra of base impedance and 3 days after cell seeding. Inset shows equivalent circuit between cell and substrate.

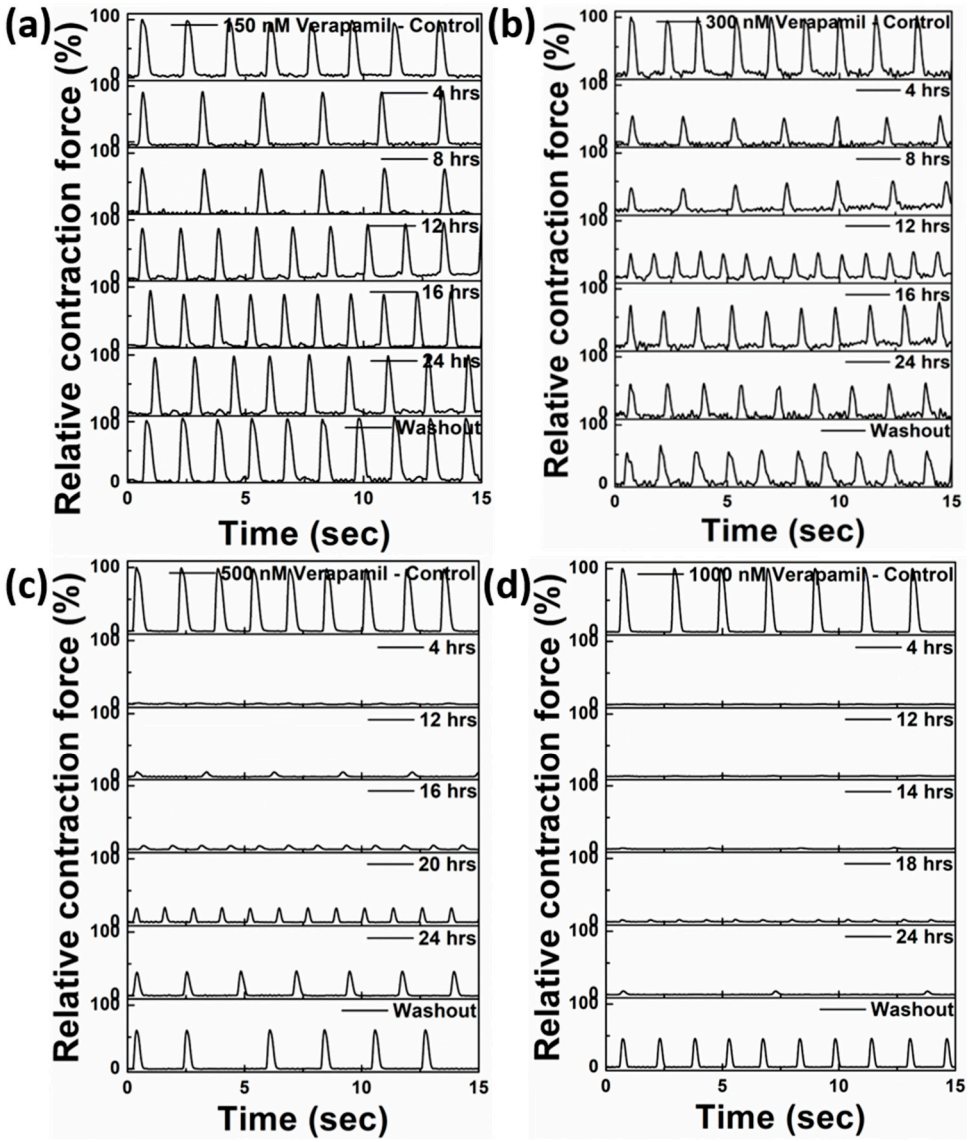

Figure S5. Normalized contraction force on addition of Verapamil of concentrations (**a**) 150 nmol/L, (**b**) 300 nmol/L, (**c**) 500 nmol/L, (**d**) 1000 nmol/L measured up to 24 h.

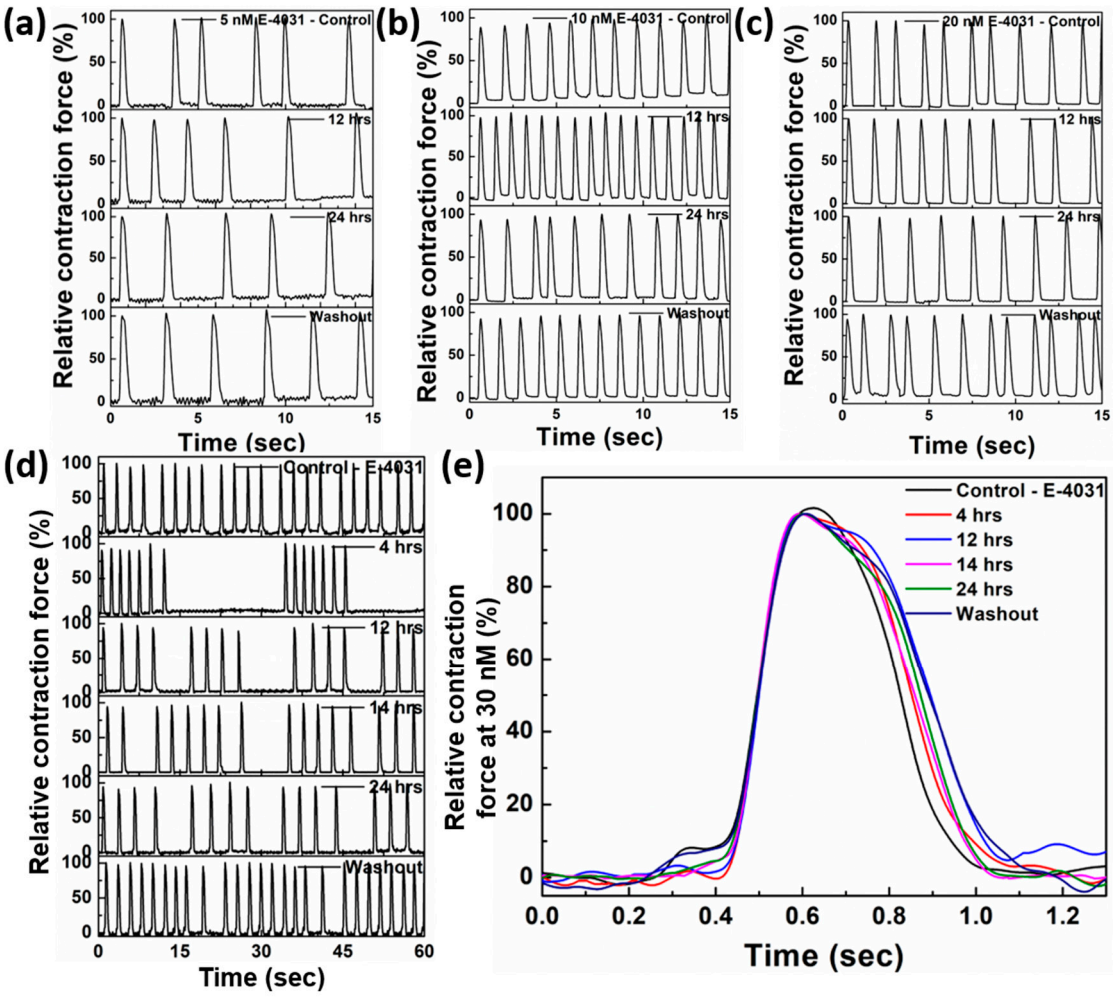

Figure S6. Normalized contraction force on addition of E-4031 of concentrations (**a**) 5 nmol/L, (**b**) 10 nmol/L, (**c**) 20 nmol/L, (**d**) 30 nmol/L measured up to 24 h, (**e**) overlapped peaks of contraction force of 30 nmol/L E-4031.