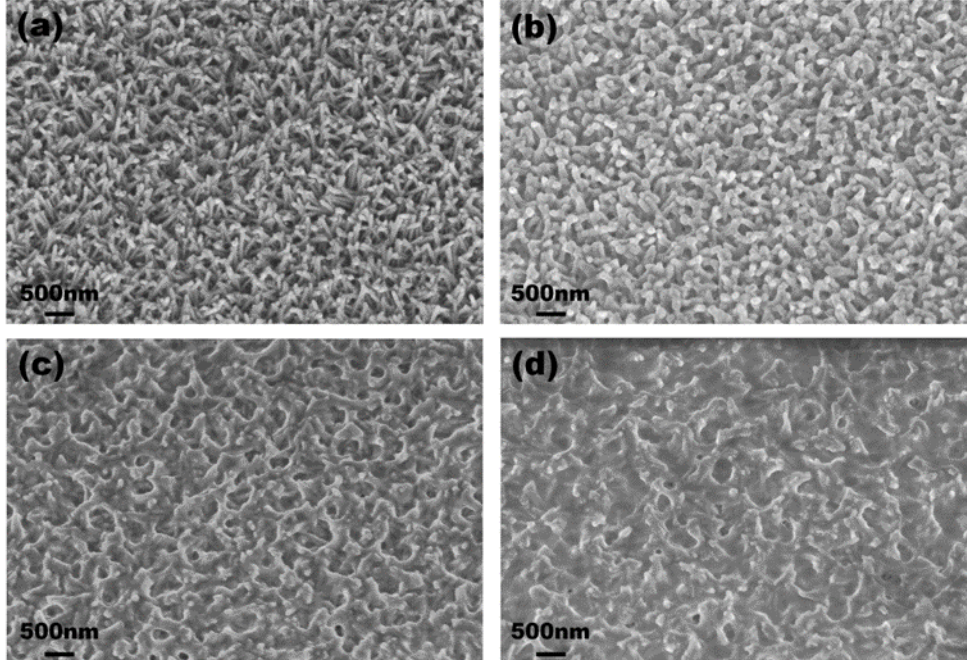


Supplementary Figure S1

SEM images of Si samples coated with 10-nm-thick ZnO film and with additional wet growth of ZnO nanostructures by hydrothermal synthesis after 1 week incubation in (a) 0.25 mL, (b) 0.50 mL, (c) 1.0 mL, and (d) 2.0 mL cell culture media.



Supplementary tables

Suppl. Table S1.

Absorbance measurements of Cardiac Stromal cells grown on tissue culture plastic (TC), ZnO-NanoWires coated Si wafer (ZnO-NWs 1h and 3.5h), ultra-thin ZnO film ('seed layer') on Si wafer (ZnO wafer), Si wafer ('seed layer') and Si-NanoWires coated Si wafer.

AVERAGE						
	days	baseline	2	4	7	10
TC		0.067 ± 0.013	0.160 ± 0.032	0.170 ± 0.015	0.172 ± 0.018	0.205 ± 0.033
ZnO wafer		0.060 ± 0.011	0.063 ± 0.013	0.126 ± 0.016	0.133 ± 0.014	0.183 ± 0.047
ZnO NWs 1h		0.034 ± 0.006	0.046 ± 0.006	0.091 ± 0.007	0.094 ± 0.010	0.130 ± 0.031
ZnO NWs 3.5h		0.079 ± 0.020	0.084 ± 0.017	0.089 ± 0.016	0.085 ± 0.003	0.041 ± 0.002
Si wafer		0.018 ± 0.004	0.041 ± 0.014	0.036 ± 0.019	0.149 ± 0.047	0.177 ± 0.075
Si NWs		0.020 ± 0.002	0.042 ± 0.008	0.040 ± 0.016	0.132 ± 0.032	0.109 ± 0.015

Suppl. Table S2

Cardiac stromal cell viability 24h after incubation with cell culture media incubated with ZnO-NanoWires coated Si wafer (ZnO-NWs 1h and 3.5h) or ultra-thin ZnO film on Si wafer (ZnO wafer), Si wafer ('seed layer') and Si-NanoWires coated Si wafer for 3 days (table S2a) and for other 4 days (table S2b).

Table S2a

Conditioned media days 1-3		
	viability (%)	SEM
ZnO wafer 1 mL/cm ²	17.61	± 6.82
ZnO wafer 2 mL/cm ²	25.57	± 8.96
ZnO wafer 4 mL/cm ²	67.88	±5.60
ZnO-NWs 1h 1 mL/cm ²	44.31	± 6.70
ZnO-NWs 1h 2 mL/cm ²	66.61	± 8.74
ZnO-NWs 1h 4 mL/cm ²	64.54	± 8.62
ZnO NWs 3.5h 1 mL/cm ²	3.37	± 2.31
ZnO NWs 3.5h 2 mL/cm ²	2.23	± 1.81
ZnO NWs 3.5h 4 mL/cm ²	46.33	± 6.41
ZnO NWs 3.5h 4 mL/cm ²	46.33	± 6.41
Si wafer 1 mL/cm ²	128.03	± 4.52
Si wafer 2 mL/cm ²	128.17	± 6.06
Si wafer 4 mL/cm ²	132.78	± 5.43
Si NWs 1 mL/cm ²	126.39	± 3.76
Si NWs 2 mL/cm ²	131.04	± 4.29
Si NWs 4 mL/cm ²	117.36	± 10.39

Table S2b

Conditioned media days 4-7		
	viability (%)	SEM
ZnO wafer 1 mL/cm ²	18.26	± 6.40
ZnO wafer 2 mL/cm ²	43.74	± 13.28
ZnO wafer 4 mL/cm ²	85.33	± 8.03
ZnO-NWs 1h 1 mL/cm ²	55.95	± 18.07
ZnO-NWs 1h 2 mL/cm ²	56.33	± 11.69
ZnO-NWs 1h 4 mL/cm ²	64.31	± 13.83
ZnO NWs 3.5h 1 mL/cm ²	5.19	± 1.12
ZnO NWs 3.5h 2 mL/cm ²	13.93	± 4.43
ZnO NWs 3.5h 4 mL/cm ²	79.92	± 11.65
Si wafer 1 mL/cm ²	137.25	± 5.03
Si wafer 2 mL/cm ²	123.82	± 10.56
Si wafer 4 mL/cm ²	140.99	± 5.47
Si NWs 1 mL/cm ²	136.14	± 4.86
Si NWs 2 mL/cm ²	130.25	± 3.45
Si NWs 4 mL/cm ²	153.45	± 14.04