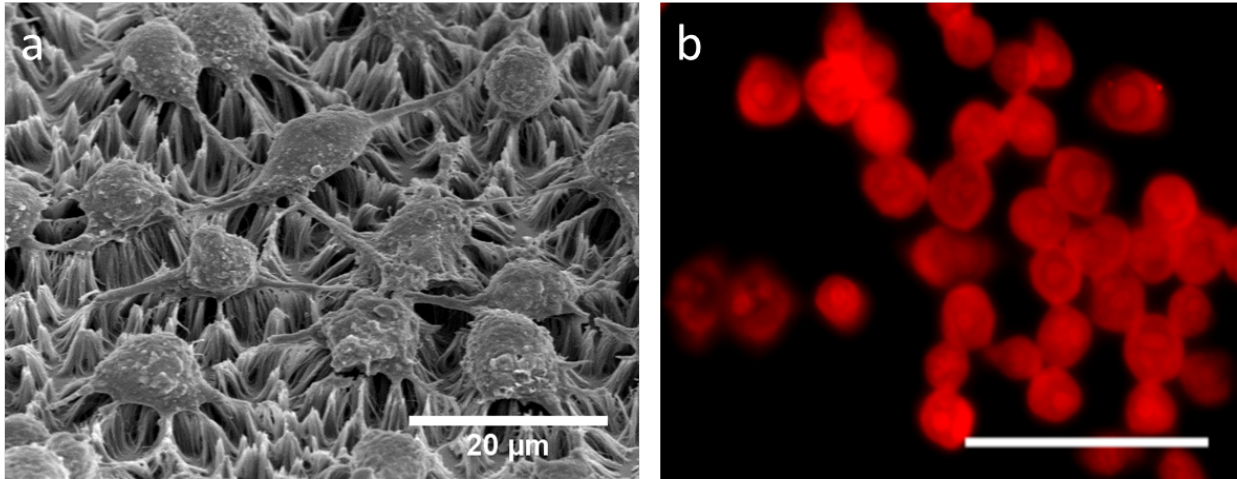
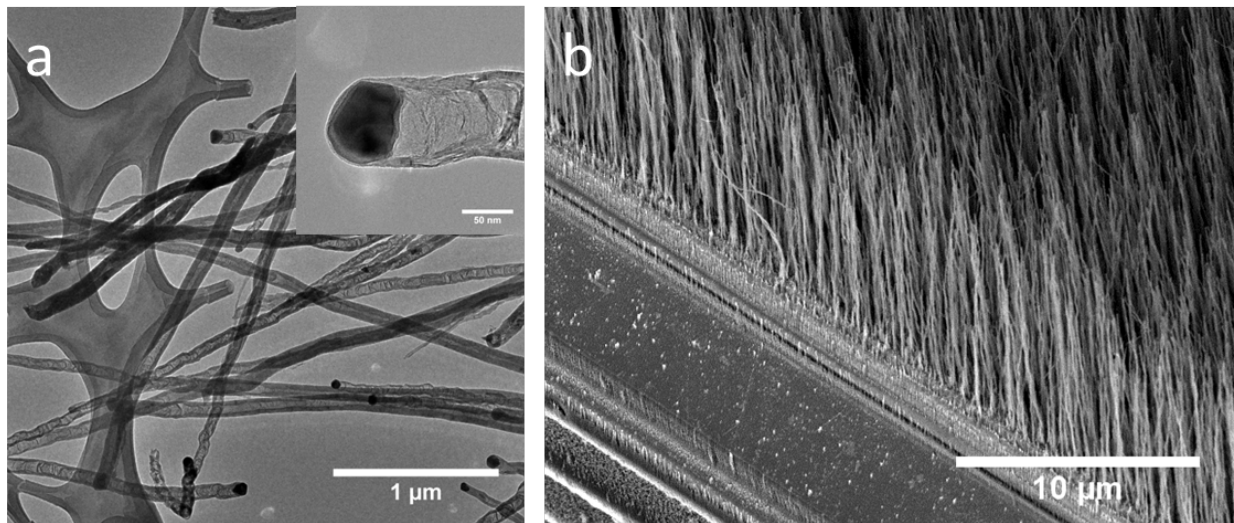


Supplementary Information



SI 1 (a) DC 2.4 cells on as-grown CNT array, (b) whole-cell propidium iodide staining of DC 2.4 cells on as-grown CNT array after 48 h incubation (scale bar represents 60 μ m).



SI 2 (a) TEM image of as-grown CNTs with inset of CNT tip containing Ni catalyst, (b) SEM image of as-grown CNT arrays.

Sample	Emission Intensity (a.u.)	Concentration (μM)
γ -alumina NW:1	23.65	0.1514
γ -alumina NW:2	1.319	0.008444
amorphous alumina NW:1	37.55	0.2404
amorphous alumina NW:2	0.9901	0.006344

SI 3 Table of caspase-3 fluorimetry assay results.

A caspase-3 fluorimetry assay kit was purchased from Enzo Life Sciences. This assay detects AFC (7-amino-4-trifluoromethyl coumarin) upon cleavage from labeled substrate DEVD-AFC. In order to detect the concentration of Ac-DEVD-CHO, a caspase-3 protein was purchased from Promocell to interact with dispersed Ac-DEVD-CHO. After developing a standard curve, Ac-DEV-CHO was added to both amorphous and gamma-phase alumina NW arrays within a known volume, physically constrained to only interact with the array and incubated for 1 h at 37 °C and subsequently rinsed. Samples were then incubated for 48h at 37°C. Next, the liquid media was then completely extracted into a separate vial, stirred, and then sampled (labeled, NW:1, in SI 3). The substrates were then rinsed again with a known volume and the resulting rinse was sampled (labeled, NW:2, in SI 3).