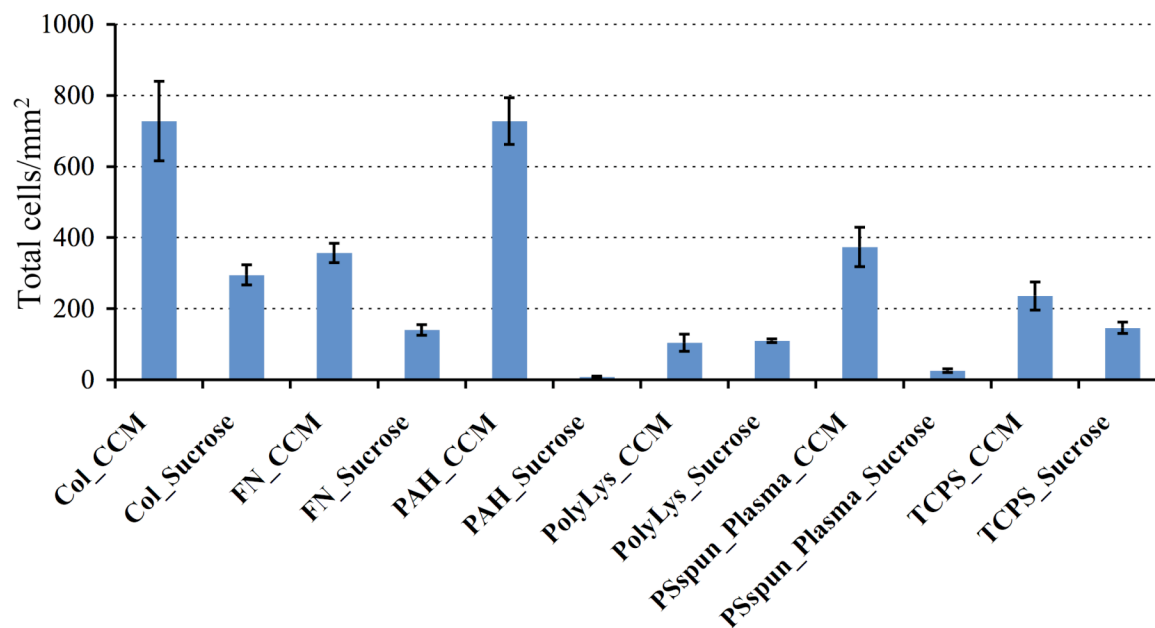


Supporting Information

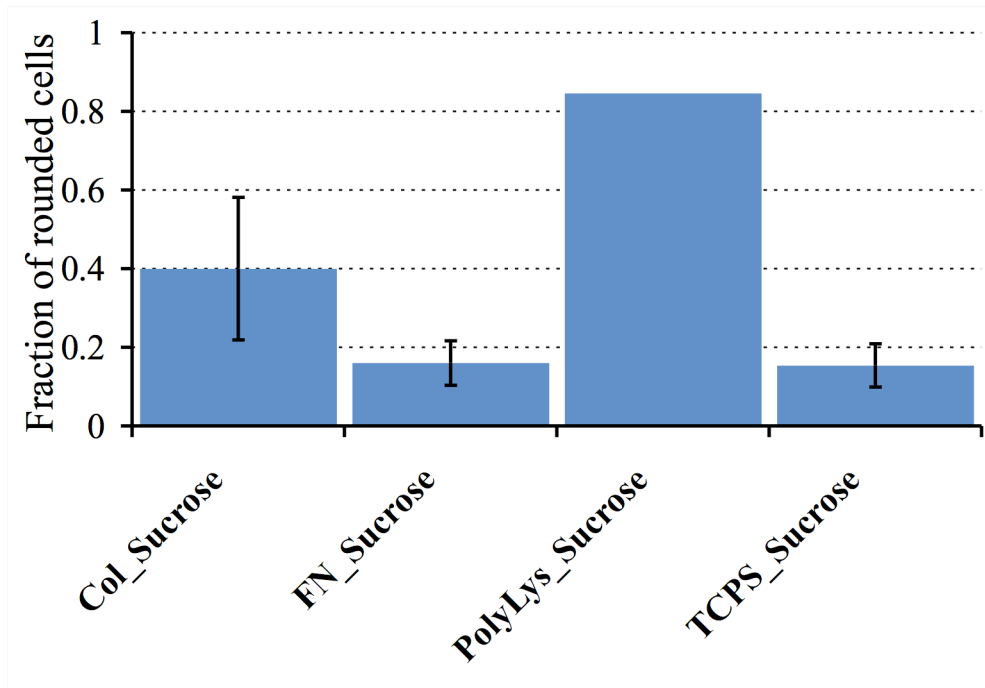
Hybrid Cell Adhesive Material for Instant
Dielectrophoretic Cell Trapping and Long-Term Cell
Function Assessment

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Supporting Figure S11. Total density of P19 cells on test substrates after 24h in complete cell culture media (CCM). Cells were seeded in 320 mM sucrose or cell culture media and incubated with the test substrate for 15 min. The incubation solution was removed before addition of media for the 24h culture. Cells were fixed and imaged with phase microscopy. The number of spread and rounded cells were counted on 4 regions of a wide field representative image and the fraction of rounded cells to total cells were calculated. Col=collagen I, FN=fibronectin, PAH=poly, polyLys=poly lysine, PSspun_Plasma=spun cast polystyrene and plasma treatment, TCPS=tissue culture polystyrene.



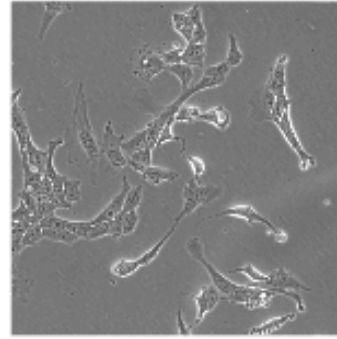
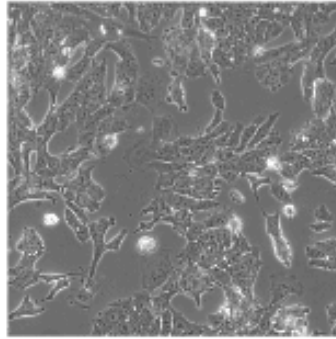
Supporting Figure SI2. Fraction of rounded cells on test substrates after seeding in 320 mM sucrose. Rounded cells were considered to be unhealthy cells. The fraction of round cells on both the polyLys and Col surfaces were notably higher than the fraction of rounded cells on the FN and TCPS surfaces. The FN adhesion surface was selected for constructing the hybrid cell adhesion layer. The error bar for PolyLys_Sucrose was not estimated since there were only 6 well-adhered cells in the field that was examined.

Seeded in:

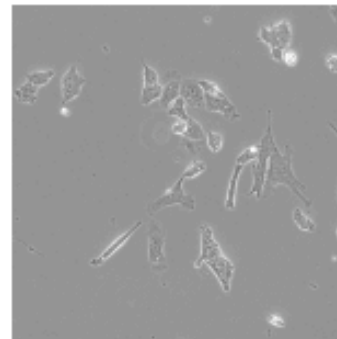
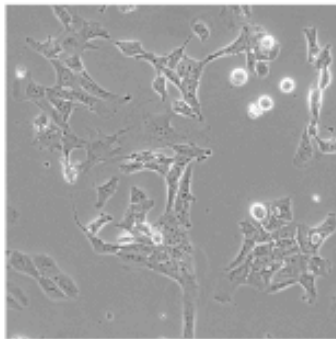
CCM

Sucrose

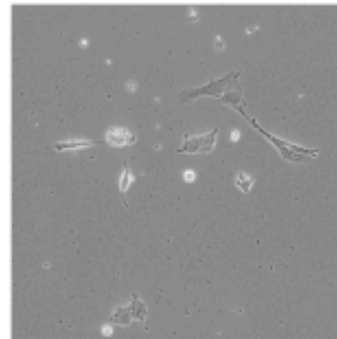
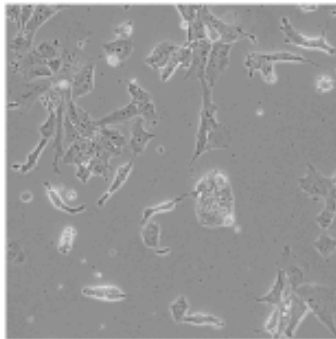
TCPS
(6-well plate)



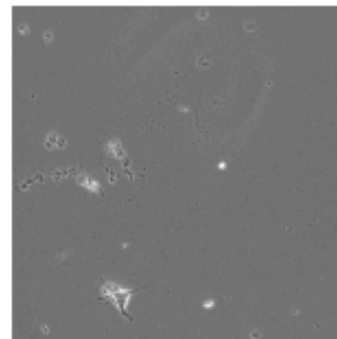
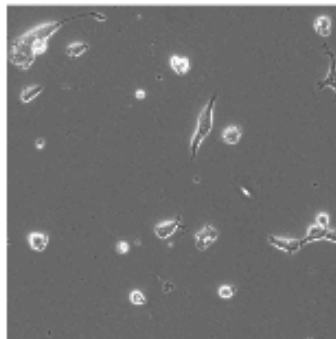
PS
(Spin-coated,
oxidized and
CCM pretreated)



PS
(Spin-coated and
oxidized)



PEMs



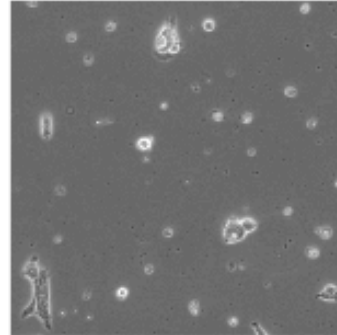
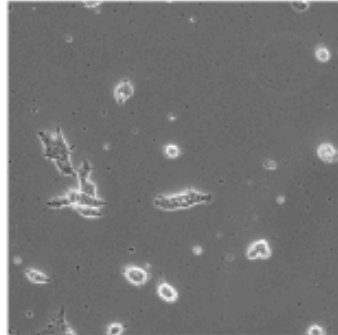
Supporting Figure SI3a. Representative micrographs of P19 cells 24 h after seeded on different PS surfaces and on PEMs. Cells were suspended in CCM and sucrose.

Seeded in:

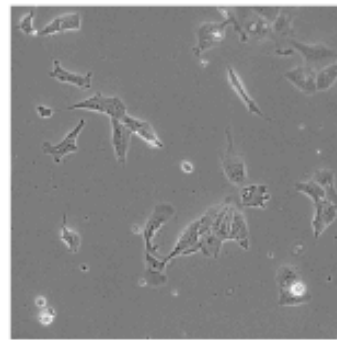
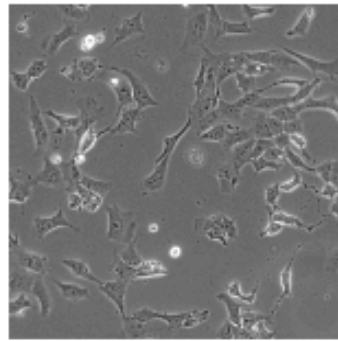
CCM

Sucrose

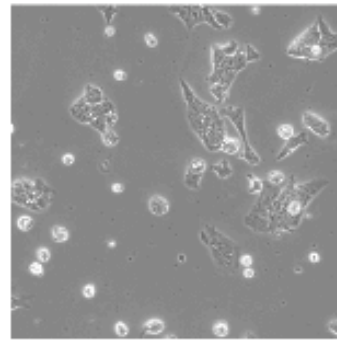
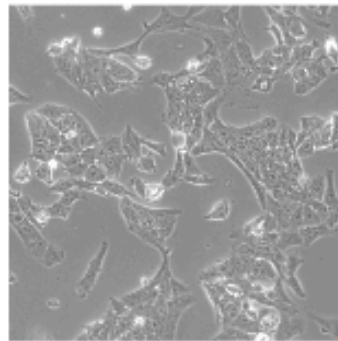
Poly-L-
Lysine



Fibronectin



Collagen I



Supporting Figure SI3b. Representative micrographs of P19 cells 24 h after seeded on Poly-L-Lysine, FN, and Collagen I surfaces. Cells were suspended in CCM and sucrose.