

**Supplementary Information for:**

**Detecting Nanotopography Induced Changes in Cell Migration Directions**

**Using Oxygen Sensors**

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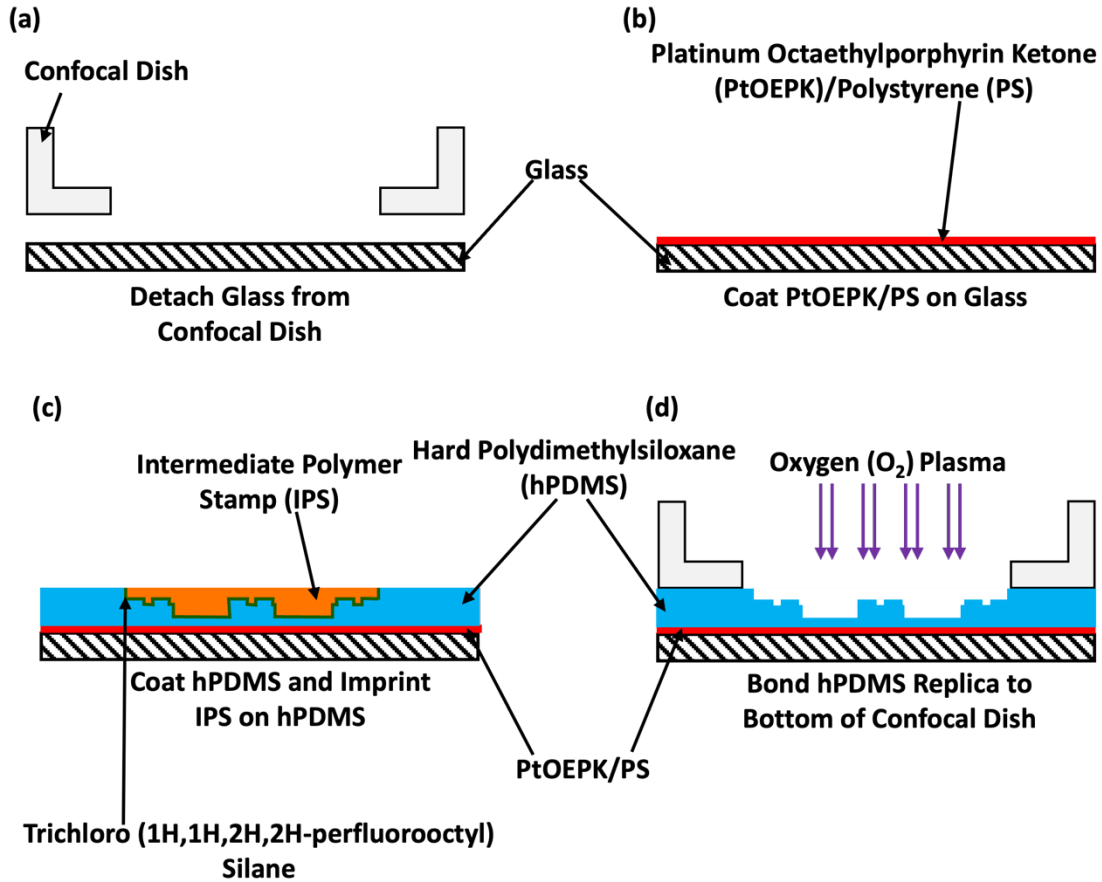
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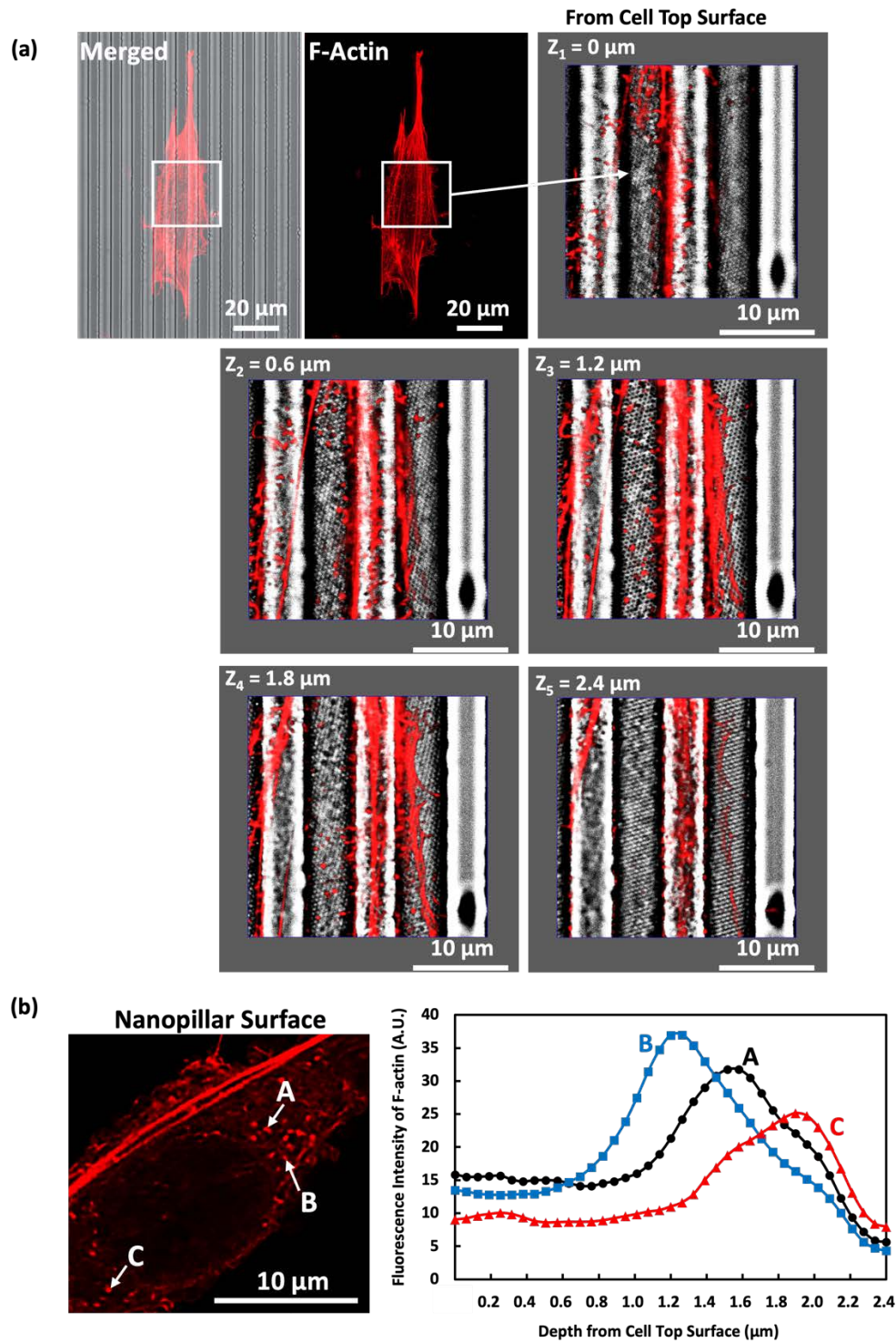
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## Supplementary Figures and Supplementary Figure Legends



**Supplementary Figure S1.** Fabrication technology of pattern hard polydimethylsiloxane (hPDMS) guiding platform for oxygen ( $O_2$ ) detection during cell migration. (a) Detachment of glass from confocal dish. (b) Coat platinum octaethylporphyrin ketone/polystyrene on glass. (c) Coat hPDMS on glass and imprint IPS on hPDMS. (d) Bond to confocal dish.



**Supplementary Figure S2.** Depth distribution of actin filaments (F-actin) of MC3T3-E1 cell on nanopillars. (a) Fluorescence images of F-actin from 0 to 2.4  $\mu\text{m}$  below cell top surface. (b) Fluorescence intensity of three F-actin dots as function of depth from cell top surface.