Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: 24 h live imaging of HUVEC monolayers with nucleus stained with Hoechst on flat (left) or microgroove (right) substrate.

File Name: Supplementary Movie 2

Description: Averaged x-velocity fields over 24 h of HUVEC monolayers on flat (left) or microgroove (right) substrate.

File Name: Supplementary Movie 3

Description: Averaged x-velocity fields over 24 h of low-density (left), mediumdensity (center), or high-density (right) HUVEC monolayers.

File Name: Supplementary Movie 4

Description: Example of an individual cell on microgrooves with nucleus stained with Hoechst showing polarity reversals.