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Supporting Material

Force generation in lamellipodia is a probabilistic process with fast growth and retraction events

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SUPPORTING MATERIAL

FIGURE S1 Schematic of the optical tweezers set-up. The laser beam was expanded and collimated through a set of lenses ($L1-L4$) to match the size of the entrance pupil of the microscope objective. The dichroic mirror DM1 directed the laser beam to the microscope objective and let the upcoming illumination beam pass through in order to image the sample onto a CCD camera. The dichroic mirror DM2 directs the light onto the quadrant photodiode (QPD) on which the lens L5 images the back focal plane of the condenser. The setup can generate multiple traps based on spatial light modulator (LC-SLM).

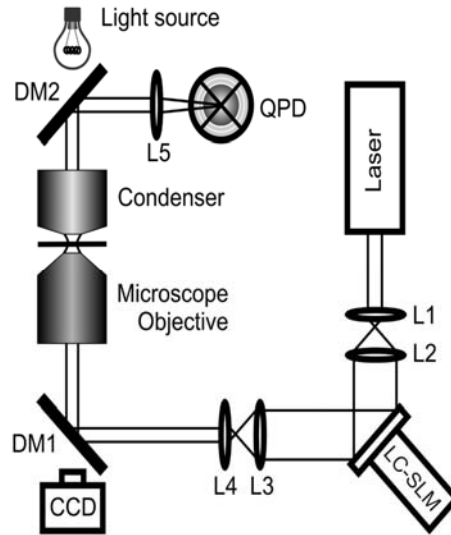


FIGURE S2 Thin lamellipodia can grow under trapped beads without pushing it. (a) Successive frames showing a thin lamellipodium which grows under the bead without displacing it. Scale bar, 2 μm . (b) The three components X (blue), Y (green), and Z (red) of the bead displacement.

