Supplementary Materials

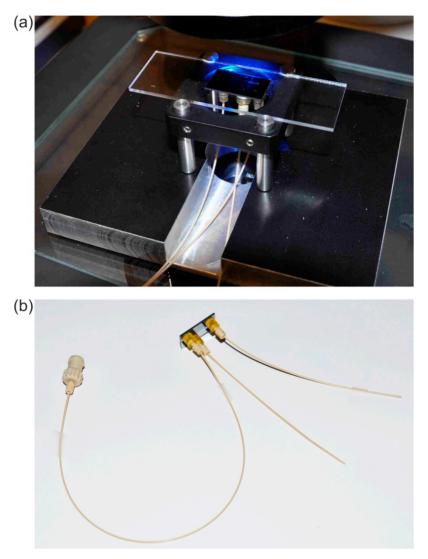


Figure S1. (a) Experimental setup showing the microfluidic chip mounted under the microscope; (b) world-to-chip interface: Bonded port connectors (Labsmith CapTite, Virum, Denmark) glued onto the backside of the silicon device, screwed-in one-piece fittings (Labsmith CapTite) connect the PEEK tubing with bonded port connector and Luer-LockTM adapter (Labsmith CapTite).

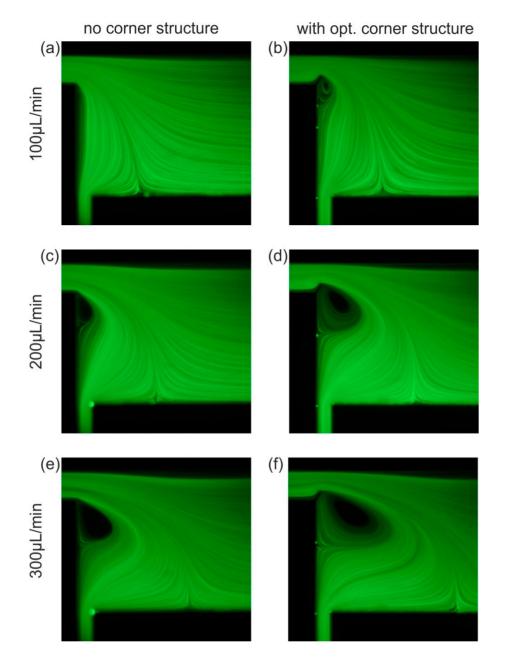


Figure S2. Comparison of fluorescent particle streamline micrographs at (**a**,**b**) 100 μ L/min, (**c**,**d**) 200 μ L/min, (**e**,**f**) 300 μ L/min. The left column shows a plain backward-facing step channel (step height *h* = 400 μ m), whereas the right column shows a sudden expansion channel featuring the optimized corner structure (step height *h* = 400 μ m, α = -30°).

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