

FIGURE S1: Set-up of the DNA microscopy reaction, related to Figure 1. (A) Bead-plate reaction chambers for the DNA microscopy on samples 1-2 and 4-5. Uncured PDMS is centrifuged to the bottom of polypropylene PCR plates. APTES-treated glass beads (coated with primary amines) are then added and spun into the uncured PDMS. The ensemble is then cured to generate a reaction chamber suitable for cell culture, multichannel pipetting, thermo-cycling, iterative enzymatic reactions, and post-PCR containment. (B) PDMS cut used for glass-slide reaction chambers used to process sample 3. The interior four wells are used for cell plating, whereas the wells along the slide perimeter are used as reservoirs, containing 1xPBS. (C) Side view of glass slide reaction chamber when plasma-bonded to glass. (D) Assembly of the DNA microscopy amplicon in multiple steps. The product achieved from the post-amplification step contains Illumina paired-end sequencing adapters.