SI Fig. 15. Demonstration of theophylline-regulated cell growth by ribozyme switches through plate-based assays. Cells harboring ribozyme switches and control constructs were streaked on two plates containing the same medium except different effector concentrations (0 mM versus 5 mM theophylline). OFF switches (L1cm10, L2cm4, L2cm1, L2bulgeOff1) exhibit suppressed cell growth on the plate containing 5 mM theophylline while an ON switch (L2bulge8) exhibits a higher growth level on the plate containing 5 mM theophylline. The control constructs (L1Theo, L2Theo, sTRSV Contl, and sTRSV) exhibit similar growth levels on both plates. sTRSV exhibits no cell growth due to its efficient cleavage activity and sTRSV Contl exhibits the highest levels of growth due to its lack of cleavage activity.