Supplementary Materials

Quasi-two-dimensional diffusion in adherent cells revealed by three-dimensional single quantum dot tracking

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Fig. S1. The averaged exponents α_{xy} and α_z of trajectories in control cells (Ctrl) and in cells treated with nocodazole (Noc), latrunculin A (LatA), or ionomycin (Ion). Error bars indicate the SEM.



Fig. S2. Fluorescent image of ER in a cell before (a) and after treatment with ionomycin (b). Scale bar, $10 \ \mu m$.



Fig. S3. The lateral diffusion rate is decreased by compressing the cells via PEG (232 trajectories in 5 cells). Error bars indicate the SEM.



Fig. S4. Confocal image of an 549 cell transfected with GFP-ER (green). The nucleus is labeled by Hoechst 33342 (blue). Views of cross sections parallel to the *x-y* (central panel), *y-z* (right panel, maximum projection) and *x-z* (lower panel, maximum projection) planes and along the yellow boxes are shown. Scale bar, 10 μ m.