



**FIG S3** Theoretical fluorescence recovery by random diffusion. Time-dependent recovery of calcein in a distance of 5 μm or 10 μm by free diffusion according to Fick's second law  $c = s / (2 \times \sqrt{\pi \times D \times t}) \times \exp(-d^2 / (4 \times D \times t))$  (for calculation s was set to 100).