Conformational dynamics of single G protein-coupled receptors in solution

Samuel Bockenhauer, Alexandre Fuerstenberg, Xiao Jie Yao, Brian Kobilka, and W. E. Moerner

The ABEL trap allows us to observe single reporter-dye-labeled GPCRs for up to ~1 second without surface attachment.

We observe a range of conformational changes, probed by step-like changes in the intensity and lifetime of the single reporter dye. The distributions and timescales of these changes depend upon the presence and absence of bound ligand.