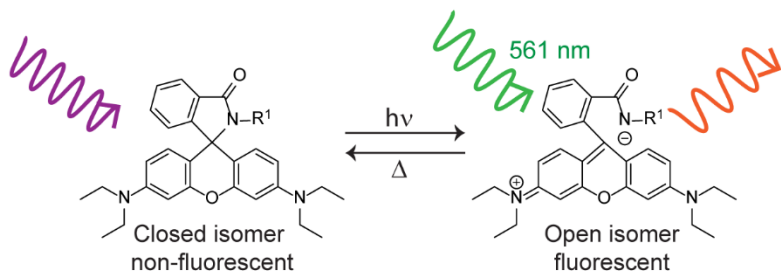


# Small-Molecule Labeling of Live Cell Surfaces for Three-Dimensional Super-Resolution Microscopy

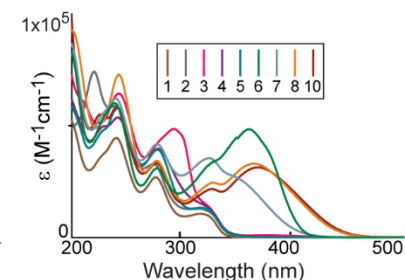
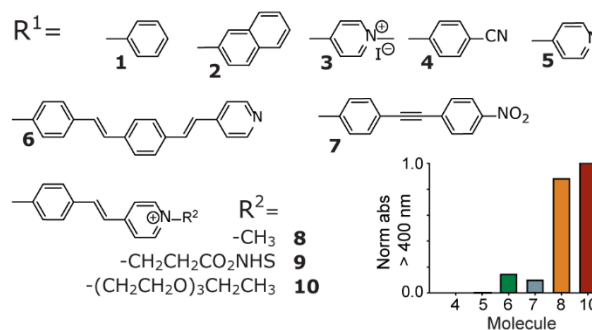
Marissa Lee, Prabin Rai, Jarrod Williams, Robert J. Twieg, W. E. Moerner

*J. Am. Chem. Soc.* (2014)

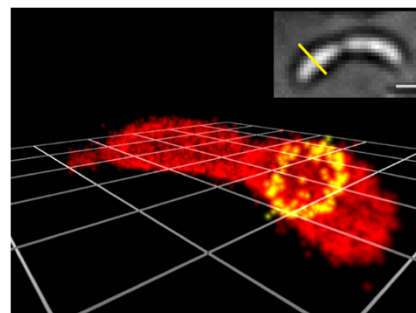
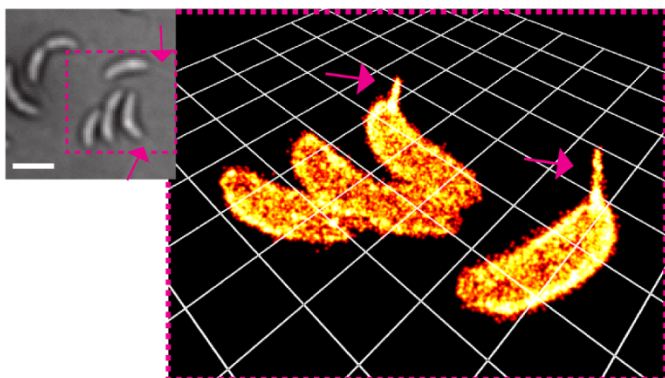
## Rhodamine spirolactams photoswitch with UV light



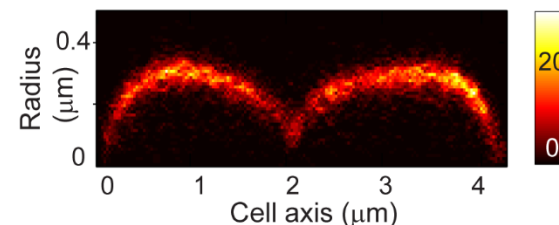
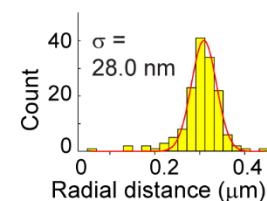
Optimize substituent attached to the lactam to red-shift the photoactivation to visible wavelengths



## Covalent labeling of live cell surfaces with optimized rhodamine spirolactam



Labeling is non-toxic, uniform, and specific.



Excellent localization precision in all three dimensions