

## Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: **Representative raw data movie from single molecule tracking microscopy of Rm2011 *mVenus-rgsS*.** The movie (3000 frames, 20 msec interval) shows the bleaching of the mVenus-RgsS molecules and in later frames the single molecule movement of mVenus-RgsS used to generate the trajectories for subsequent analysis.