

Methods: The images were segmented based on pixel intensity to identify the foreground and background areas. Very bright (hot) pixels were excluded from the analysis. Bright areas belonging to protein aggregates were selected as the foreground. Dim cellular fluorescence pixels resulting from non-specific labeling were selected as the background. Pixels outside the cellular areas, whose intensity represents camera noise (dark and shot noise), were excluded from the analysis. Specifically, each image's foreground and background areas were identified by visual inspection for both baseline (n=4) and TTR (n=4) image datasets. In baseline images, the regions selected by a human operator had intensity ranges of 50-100 for the foreground and 10-50 for the background. In TTR images, areas selected by a human operator had intensity ranges of 80-150 for the foreground and 10-30 for the background. The average of the foreground pixels over the average of the background pixels is the fluorescent signal-to-noise.

Figure caption: Box plots indicate the 25th percentile (bottom boundary), median (middle line), 75th percentile (top boundary), and nearest observations within 1.5-times the interquartile range (whiskers). Notched boxes indicate the uncertainty of the median. Boxes whose notches do not overlap indicate that the medians of the two clusters differ at the 5% significance level.