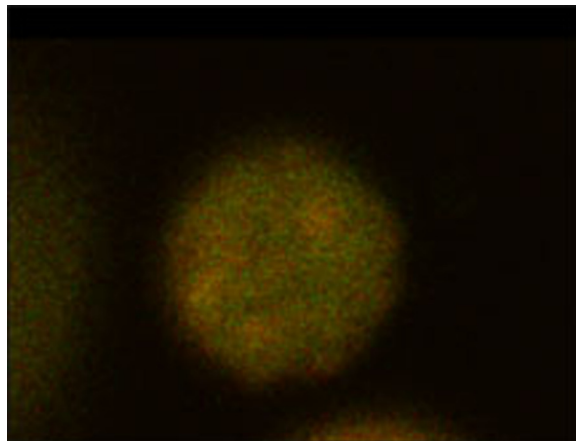


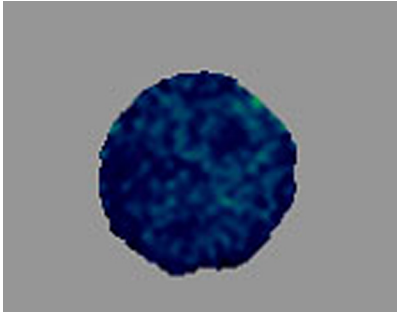
# Supporting Information

Morgan et al. 10.1073/pnas.0905565106



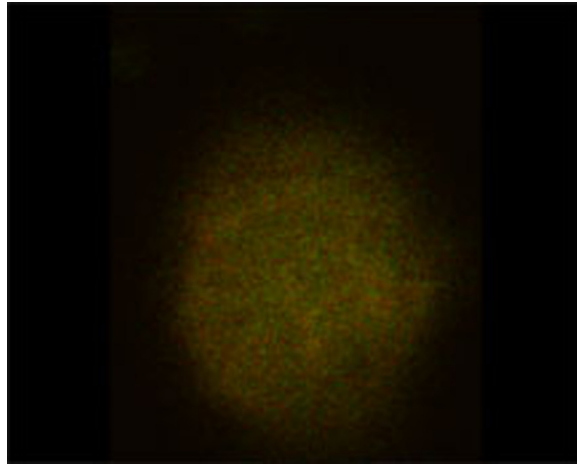
**Movie S1.** A human neutrophil phagocytosing opsonized zymosan, as visualized by overlaying 2 confocal images: one excitation at 515 nm, emission at 550–604 nm, the other excitation at 594 nm, emission at 620–715 nm. Total actual time  $\approx$ 20 min (15 s between images), compressed to 6 s. QuickTime movie, 156 kb.

[Movie S1 \(MOV\)](#)



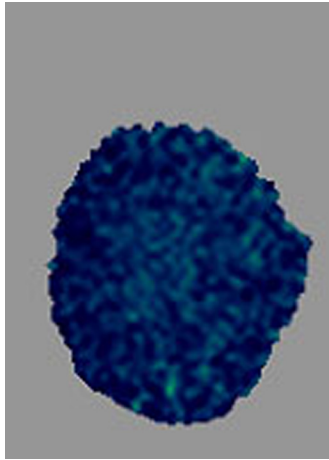
**Movie S2.** Pseudocolor version of the same human neutrophil phagocytosing opsonized zymosan. See pH calibration bar in text Fig. 2. QuickTime movie, 369 kb.

[Movie S2 \(MOV\)](#)



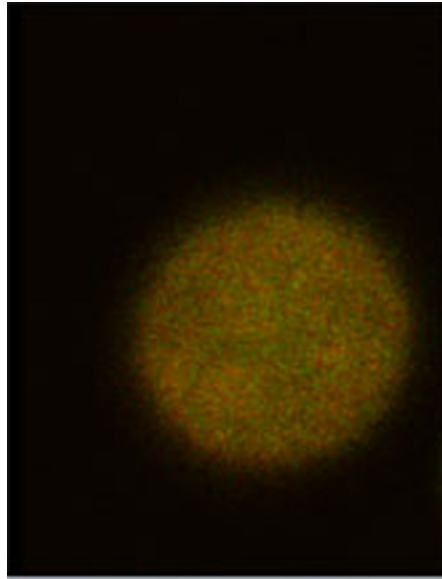
**Movie S3.** A human neutrophil pretreated with  $100 \mu\text{M}$   $\text{ZnCl}_2$  phagocytosing opsonized zymosan. Total actual time  $\approx 20$  min (15 s between images), compressed to 6 s. QuickTime movie, 165 kb.

[Movie S3 \(MOV\)](#)



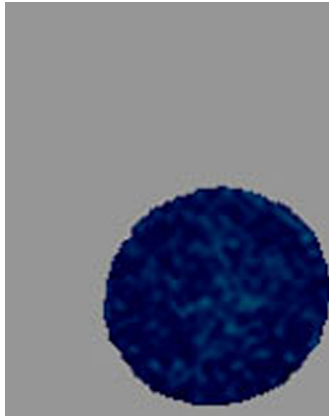
**Movie 54.** Pseudocolor version of the same human neutrophil pretreated with  $100 \mu\text{M}$   $\text{ZnCl}_2$  phagocytosing opsonized zymosan. Note the rapid and profound acidification without recovery. QuickTime movie, 505 kb.

[Movie 54 \(MOV\)](#)



**Movie S5.** A human neutrophil pretreated with 20  $\mu$ M DMA phagocytosing opsonized zymosan. Total actual time  $\approx$ 20 min (15 s between images), compressed to 6 s. QuickTime movie, 194 kb.

[Movie S5 \(MOV\)](#)



**Movie S6.** Pseudocolor version of the same human neutrophil pretreated with  $20 \mu\text{M}$  DMA phagocytosing opsonized zymosan. Note the profound acidification without recovery. QuickTime movie, 375 kb.

[Movie S6 \(MOV\)](#)