Supporting Information for:

Luminol Chemiluminescence Reports Photodynamic Therapy-Generated Neutrophil Activity In Vivo and Serves as a Biomarker of Therapeutic Efficacy.

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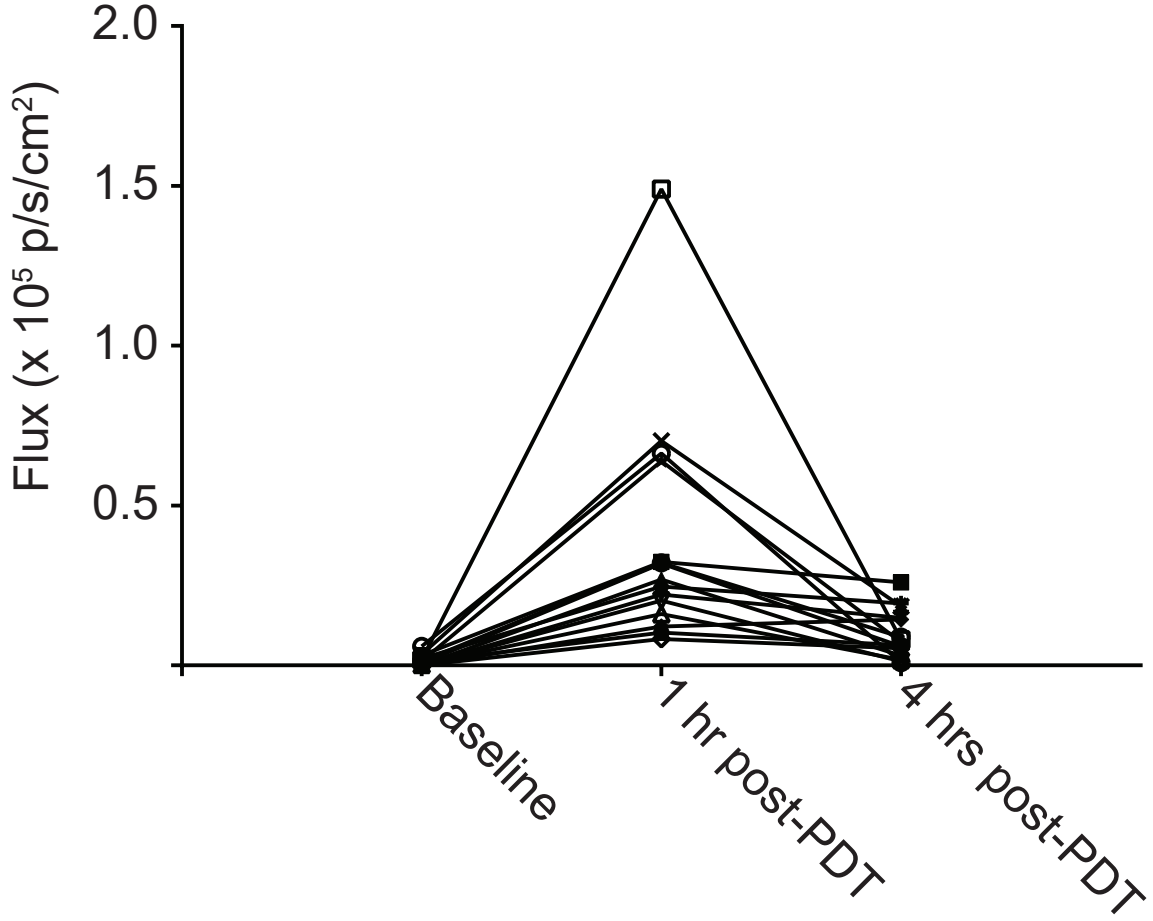

Figure S1. Individual plots of luminol chemiluminescence reveal heterogeneity in signal. In mice treated with PDT, the maximum level of luminescence achieved at 1h post-initiation of PDT varied from 0.82 – 14.9 x 104 p/s/cm^2. Longitudinally, these same mice also showed variations in the diminishment of the 4h post-PDT signal, as some maintained the 1h level while others decreased to near-baseline levels.

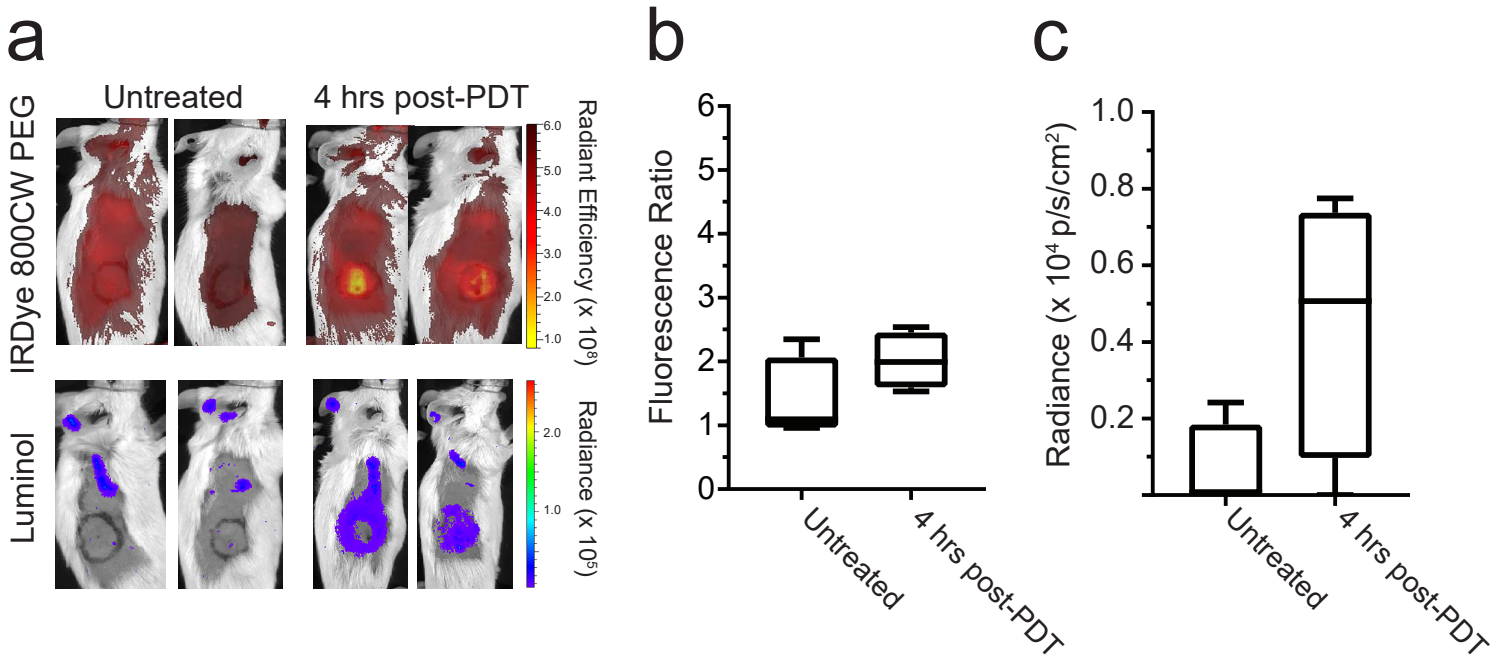

Figure S2. Tumor perfusion is maintained through 4h post-PDT. PDT is known to damage endothelial cells, leading to vascular shutdown. This may limit the ability of luminol or oxygen to reach the tumor, both of which are required for the chemiluminescence reaction. Therefore, we tested tumor perfusion using the fluorescent probe IRDye 800 CW PEG, administered fifteen minutes prior to luminol imaging. Fluorescent images revealed IRDye 800 CW PEG is able to infiltrate the tumor at 4 hours post-PDT, but it is generally mutually exclusive of luminol signal (a). The ratio of fluorescence in the treatment region to that in an untreated skin was similar between untreated tumors and those assayed at 4 hours post-PDT (b). As before, the level of luminescence was also low for both conditions (c).