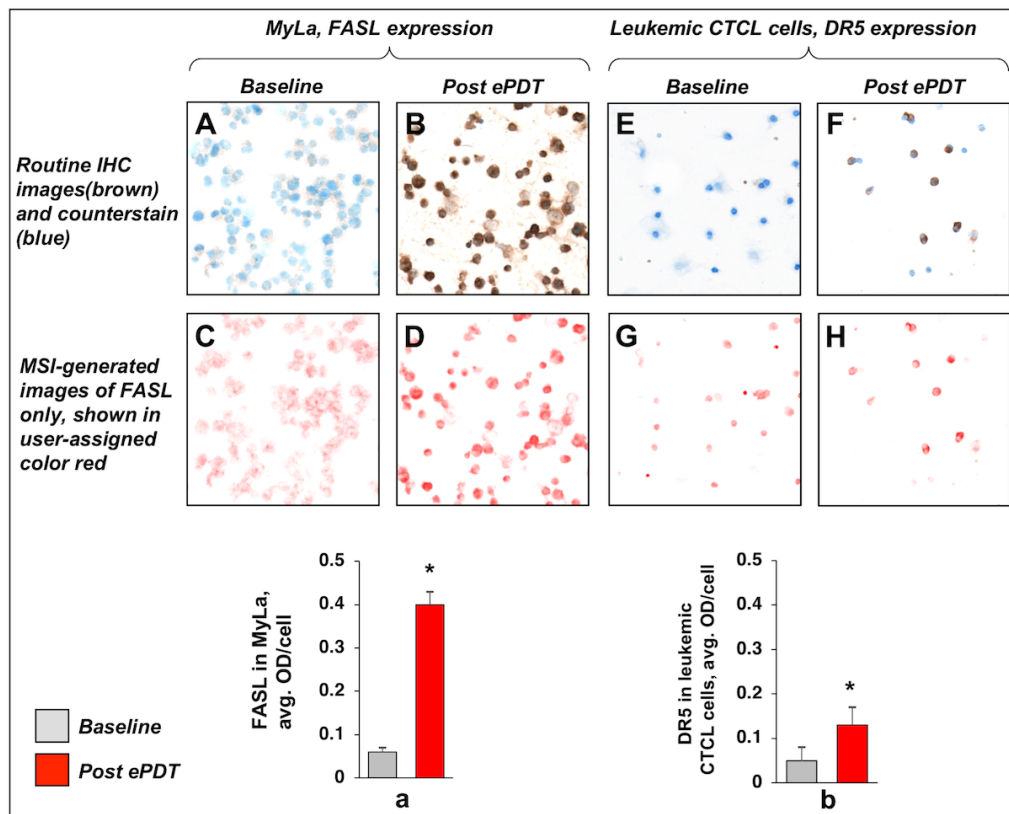


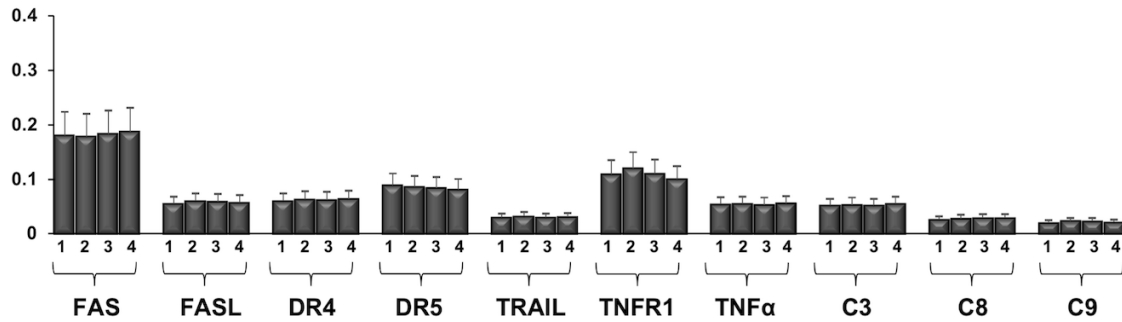
## Epigenetically Enhanced PDT (ePDT) Induces Significantly Higher Levels of Multiple Extrinsic Pathway Apoptotic Factors than Standard PDT, Resulting in Greater Extrinsic and Overall Apoptosis of CTCL

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**Figure S1.** Examples of quantitative analysis of biomarkers with multispectral imaging. A, B: Standard immunohistochemical (IHC) images of FASL expression in MyLa cells before (A) and post ePDT (B). The brown dye depicts the target protein, here FASL, while nuclei are represented by the blue stain. C, D: The system un-mixes standard IHC pictures into single components. The color red was assigned by the user to show FASL, shown here un-mixed (i.e. minus the counterstain) to illustrate the extent of stain intensity before (C) and post ePDT (D). E-H: IHC pictures of DR5 expression in leukemic CTCL cells before (E) and after ePDT (F), and corresponding MIA-generated images of DR5 stain intensity (G, H). The quantitative analysis of target expression is based on the MIA-generated images. Histogram “a” demonstrates FASL increase in MyLa cells in response to ePDT, histogram “b” shows ePDT-induced DR5 increase in leukemic CTCL cells (\*  $p < 0.05$  relative to untreated samples).

Normal blood T cells, avg. OD/cell



**Figure S2.** Expression of death receptors/ ligands and cleaved caspase 3-, 8- and 9-products in normal blood T cells pooled from three healthy donors as determined by MIA: untreated cells (1), cells post exposure to MTX alone (2), cells 24h post conventional PDT (3) and cells post ePDT (4).