

# Free and Poly-Methyl-Methacrylate-Bounded BODIPYs: Photodynamic and Antimigratory Effects in 2D and 3D Cancer Models

Marco Ballestri, Emanuela Marras, Enrico Caruso, Fabrizio Bolognese, Miryam Chiara Malacarne, Elisa Martella, Matilde Tubertini, Marzia Bruna Gariboldi \* and Greta Varchi \*

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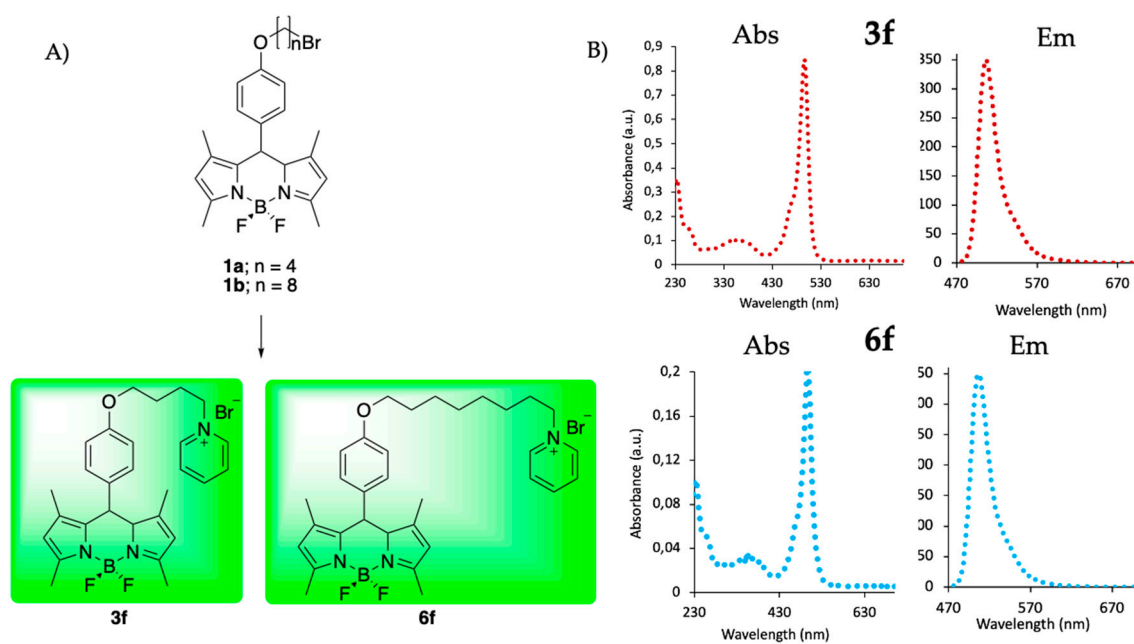


Figure S1. A) Chemical synthesis of compounds **3f** and **6f** starting from derivatives **1a** and **1b**. B) Absorbance and emission spectra of compound **3f** and **6f**.

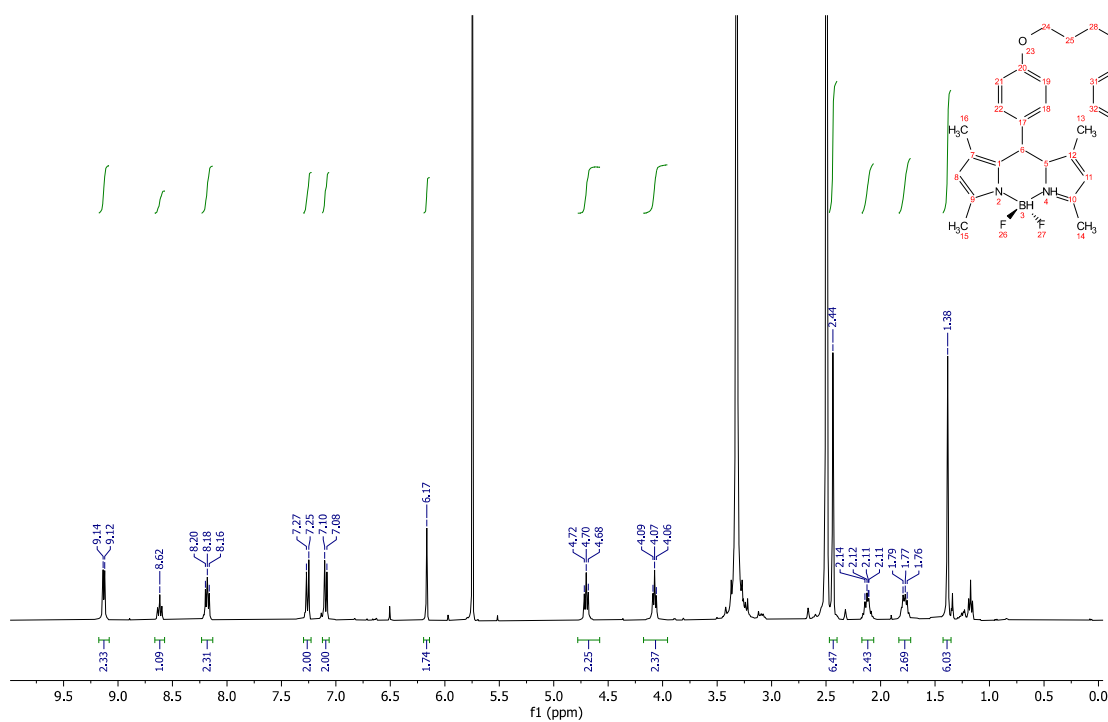


Figure S2. <sup>1</sup>HNMR of compound **3f**, (400 MHz, DMSO-d<sub>6</sub>).

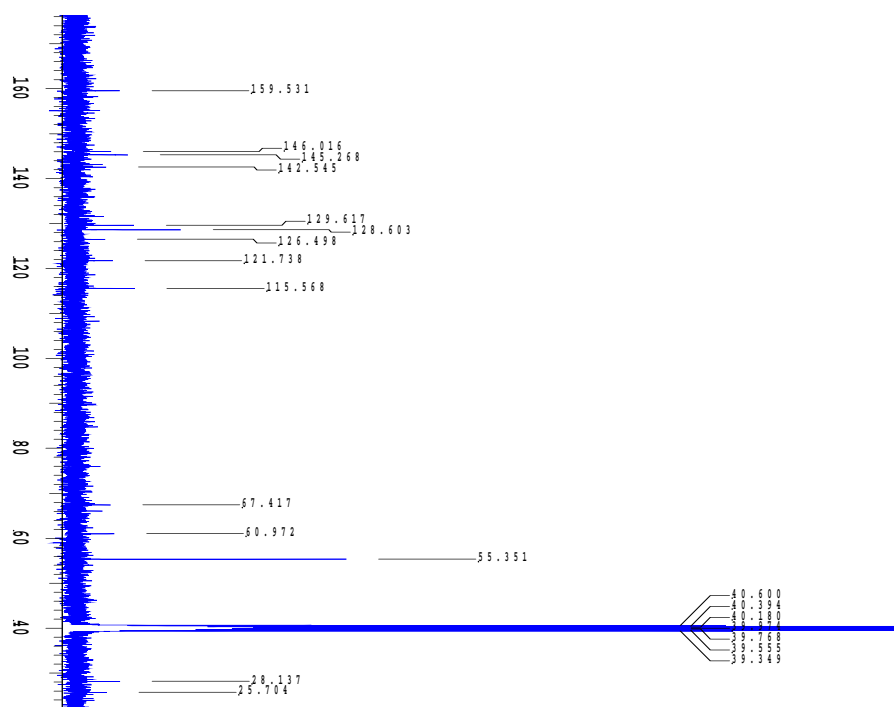


Figure S3.  $^{13}\text{C}$ NMR of compound 3f, (100 MHz,  $\text{DMSO-d}_6$ ).

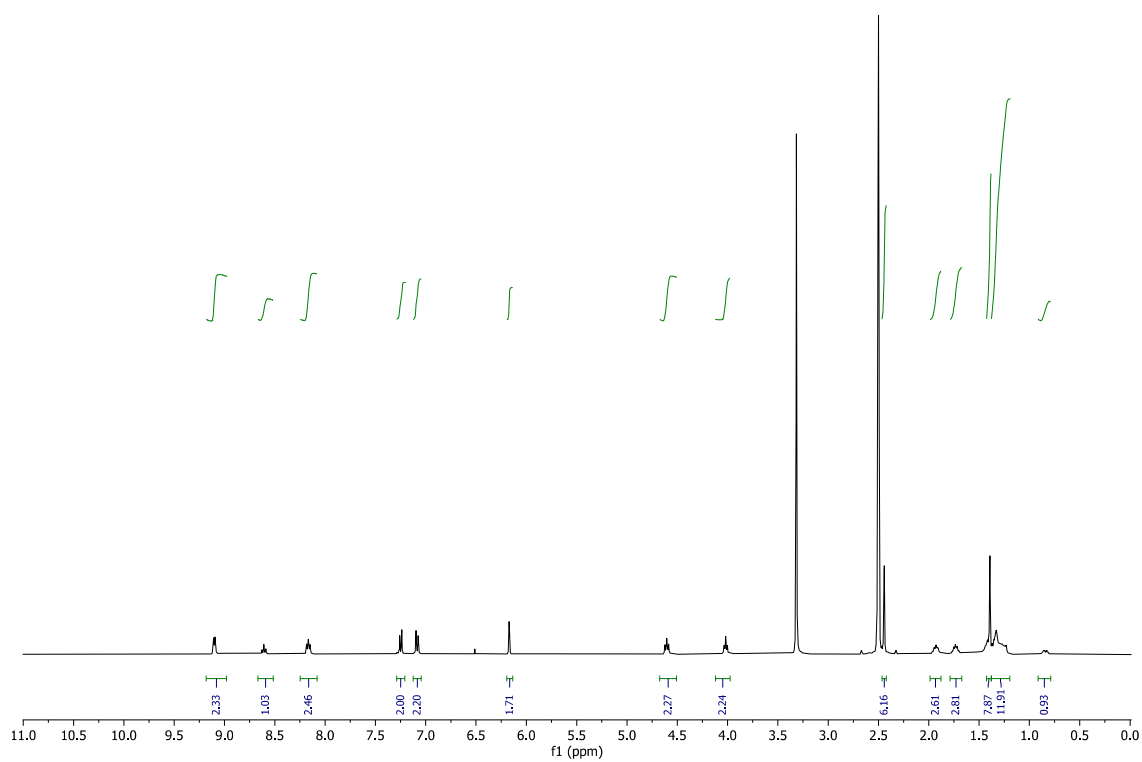


Figure S4.  $^1\text{H}$ NMR of compound 6f, (400 MHz,  $\text{DMSO-d}_6$ ).

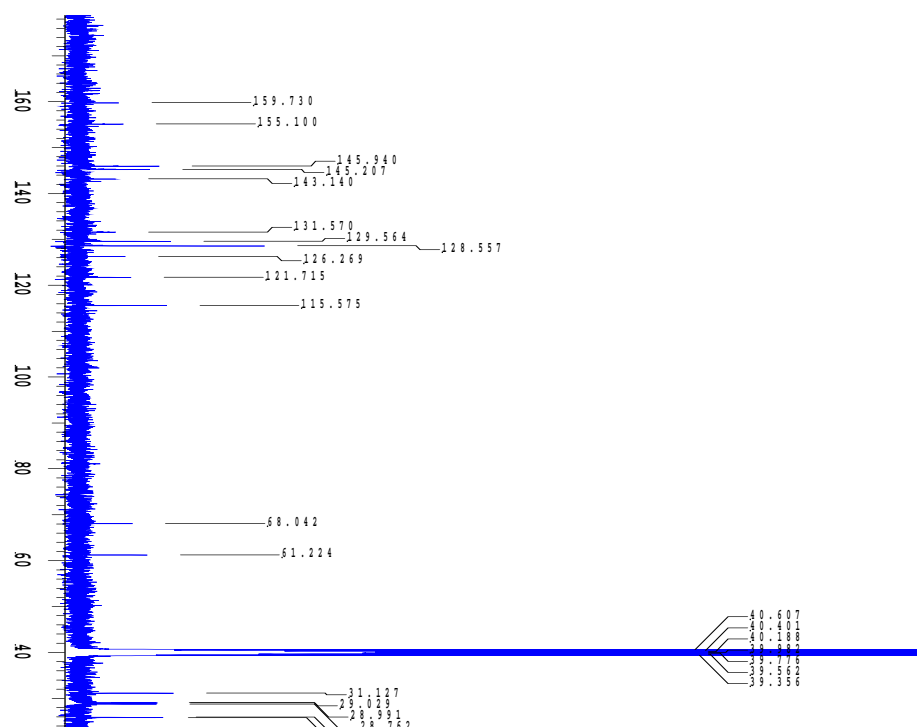


Figure S5.  $^{13}\text{C}$ NMR of compound **6f**, (100 MHz,  $\text{DMSO-d}_6$ )

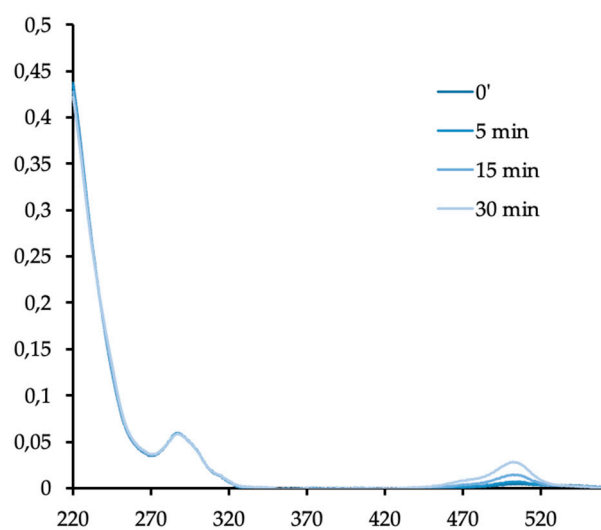


Figure S6. Graph showing the baseline profile of the dichlorofluorescein (DCF) at different irradiation times.

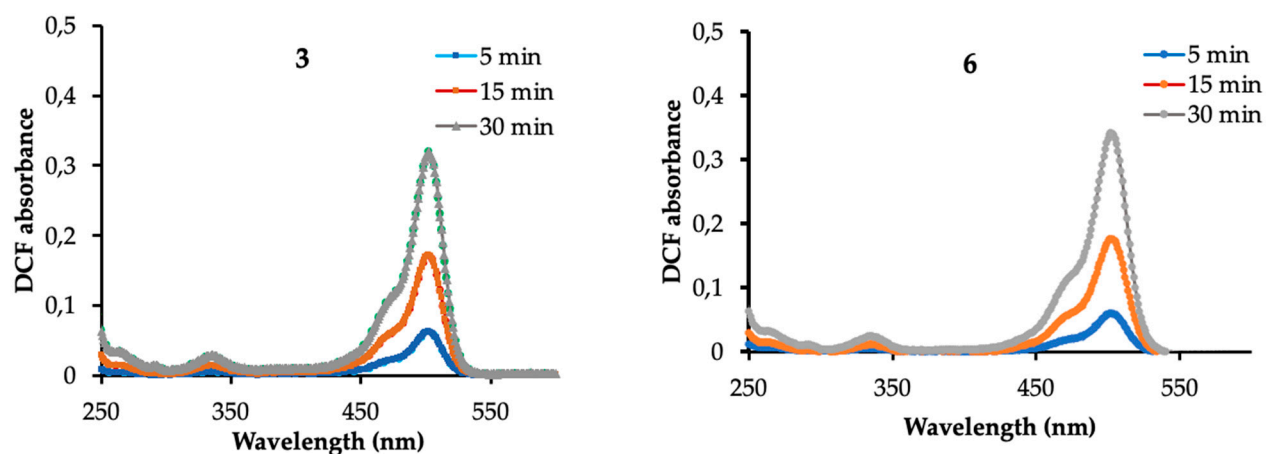


Figure S7. Graphs showing the ROS production of 3 and 6 displayed as absorption spectra of DCF measured at different irradiation times (minutes).

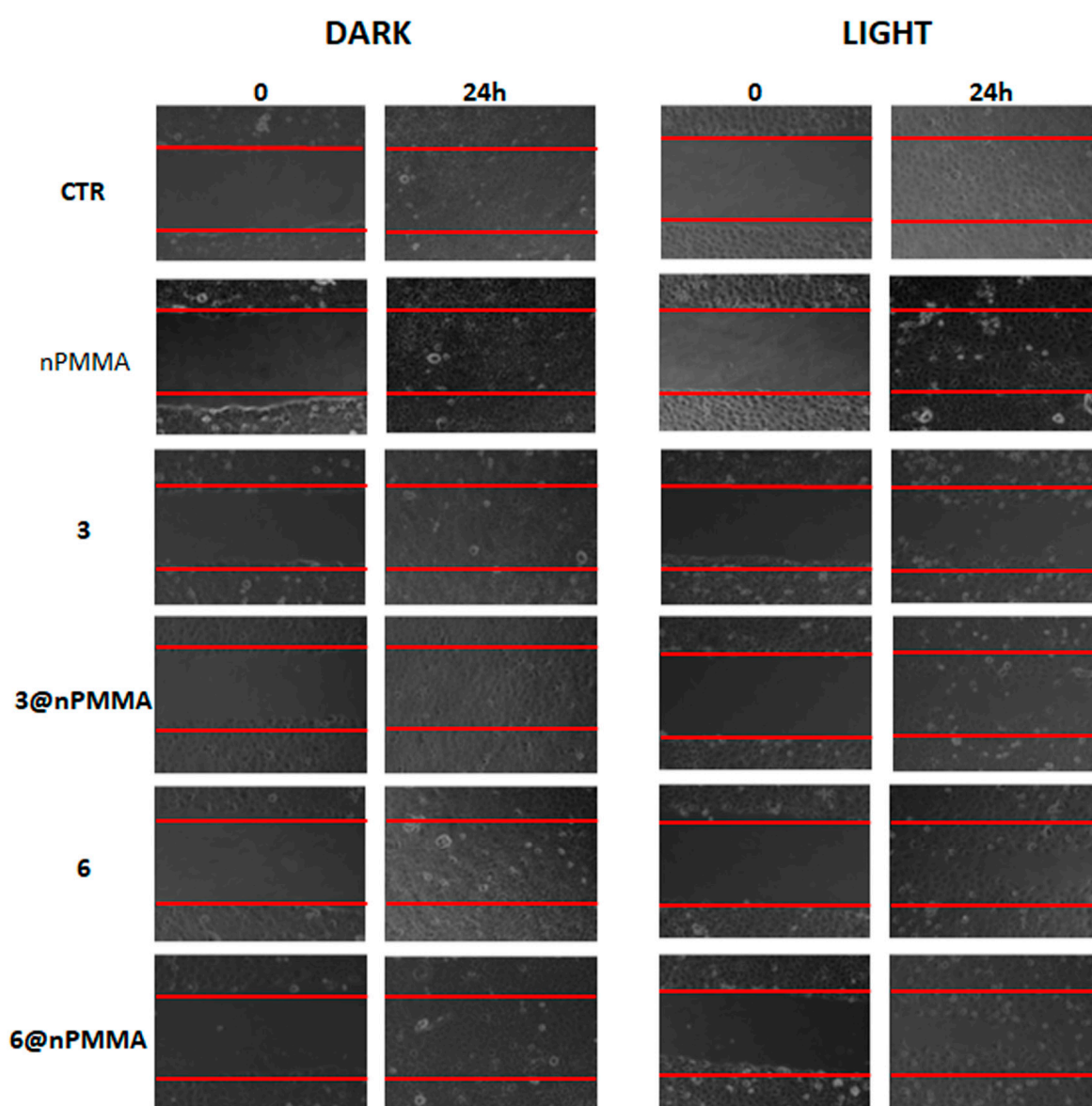
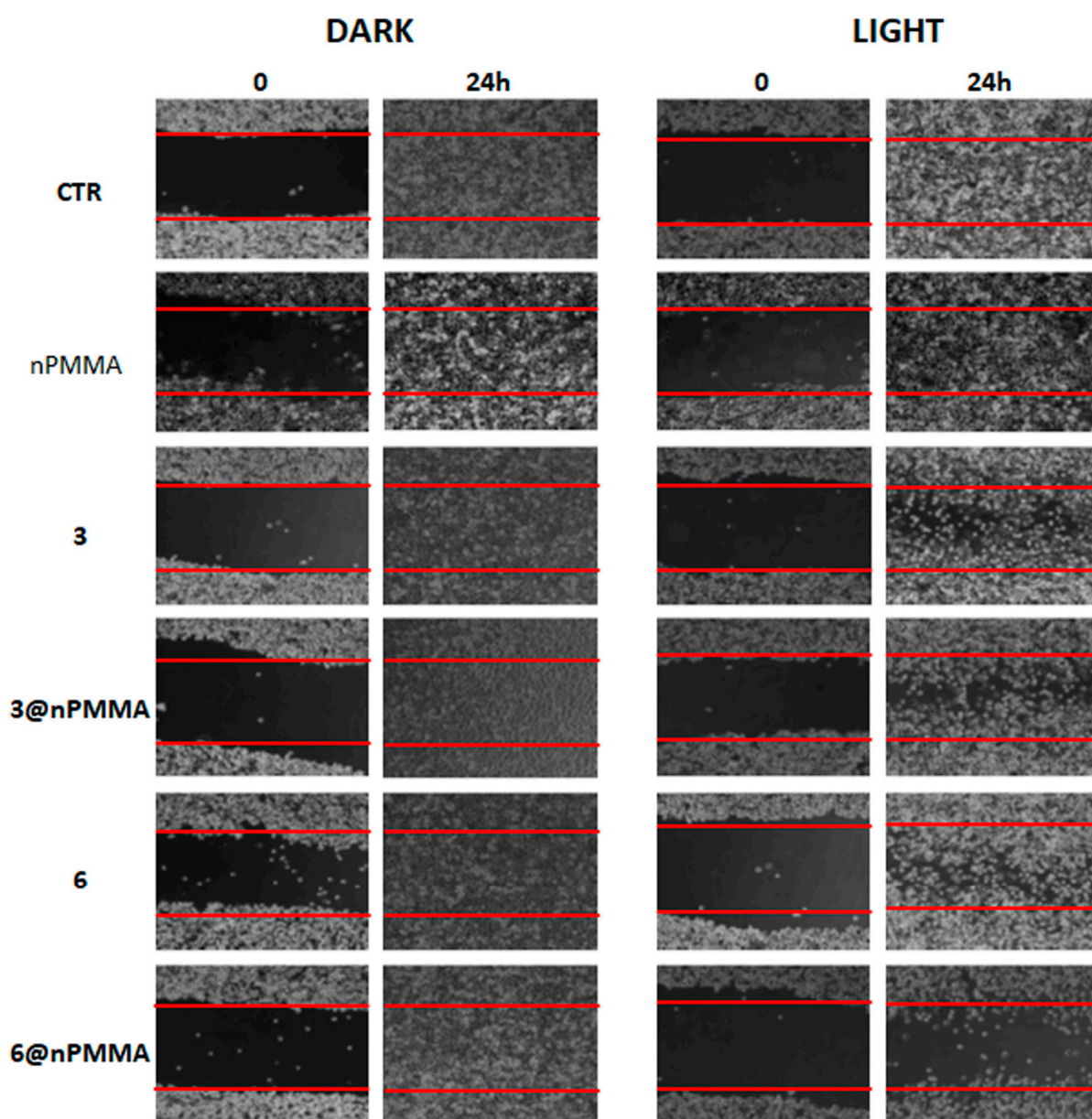
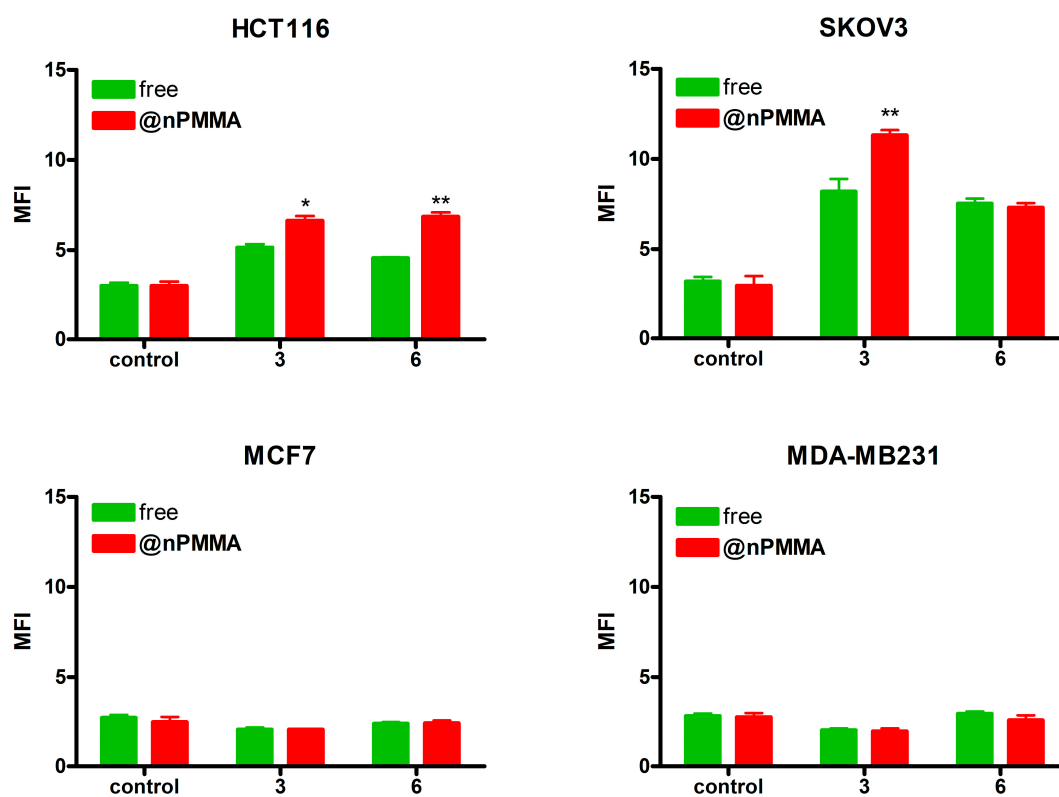


Figure S8. Effect of 24h treatment with 3, 3@nPMMA, 6, and 6@nPMMA and nPMMA, 1h irradiation and incubation for 24 h in drug free medium at 37 °C on the migratory activity of SKOV3 cells. Scratch wounds were produced before the irradiation step and pictures were taken immediately after it (0) and after 24 h, through a camera connected to an Olympus IX81 microscope. Picture showed are representative of three independent experiments.



*Figure S9. Effect of 24h treatment with 3, 3@nPMMA, 6, and 6@nPMMA and nPMMA, 1h irradiation and incubation for 24 h in drug free medium at 37 °C on the migratory activity of MDA-MB231 cells. Scratch wounds were produced before the irradiation step and pictures were taken immediately after it (0) and after 24 h, through a camera connected to an Olympus IX81 microscope. Picture showed are representative of three independent experiments.*



*Figure S10. ROS levels in HCT116, SKOV3, MCF7 and MDA-MB231 cells following 24h treatment with free (green) or nPMMA-bounded (red) 3 and 6 and 1h irradiation. Fluorescence intensity was quantitated based on the Median Fluorescence Intensity (MFI) and results obtained in 3 independent experiments are reported in the graph (\* $p < 0.05$ , \*\* $p < 0.01$  vs respective free-BODIPY).*