Supplementary Materials: Photosensitizer-Embedded Polyacrylonitrile Nanofibers as an Antimicrobial Non-Woven Textile

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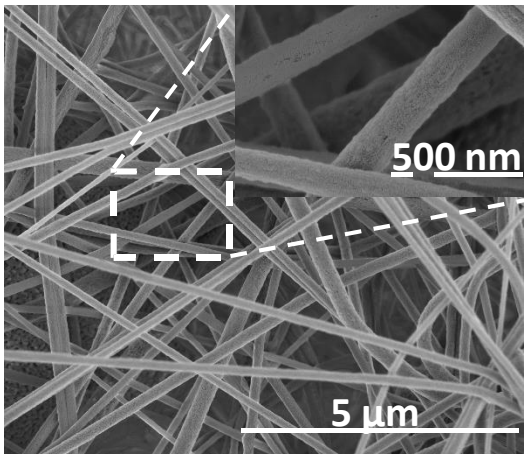

Figure S1. Scanning electron microscopy (SEM) images of electrospun polyacrylonitrile nanofibers (PAN) employed as the photosensitizer-free control material in this study. The insert represents a high resolution image.

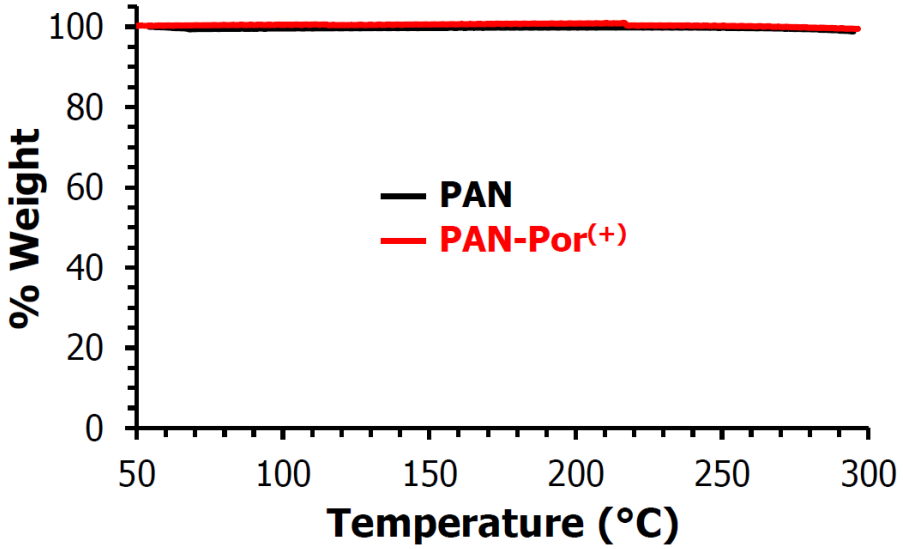

Figure S2. Thermal gravimetric analysis of PAN mother fibers (black) and PAN-Por$^{(+)}$ (red).

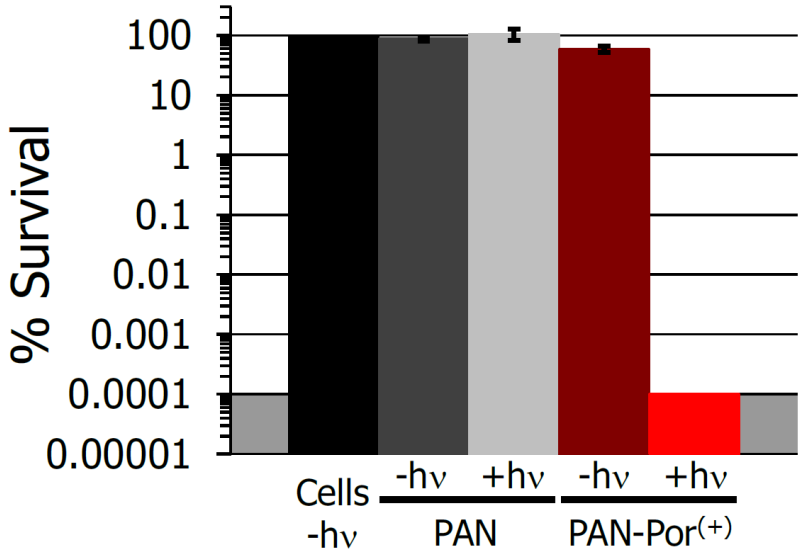

Figure S3. Photodynamic inactivation control study of *Klebsiella pneumoniae* employing both PAN and PAN-Por$^{(+)}$. Displayed are the material-free (cells-only) dark control set to 100% (black), as well as the dark control of PAN (dark grey), the illuminated control of PAN (light grey), the dark control of PAN-Por$^{(+)}$ (maroon), and the illuminated PAN-Por$^{(+)}$ (red), all displayed as a percent survival of the material-free dark control. Studies with error bars were performed in duplicate, and the illumination conditions were as follows: 30 min, 400–700 nm, 65 ± 5 mW/cm^2 (total fluence of 118 J/cm^2). As the plating technique employed to determine % survival did not allow for detection of survival rates of <0.0001%, data points below the detection limit were set to 0.0001% survival for graphing purposes, corresponding to the shaded area.

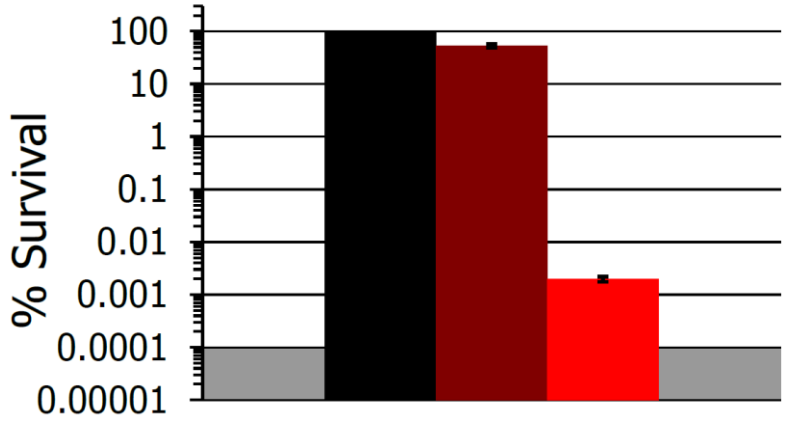

Figure S4. Photodynamic inactivation study of *Klebsiella pneumoniae* employing 'photo-aged' PAN-Por$^{(+)}$ that was pre-illuminated (400–700 nm, 65 ± 5 mW/cm^2) for 8 h. Displayed are the material-free (cells-only) dark control set to 100% (black), as well as the dark control of PAN-Por$^{(+)}$ (maroon) and the illuminated photo-aged PAN-Por$^{(+)}$ (red) studies, both as a percent of the material-free (cells-only) dark control. For all studies, the illumination conditions were as follows: 30 min, 400–700 nm, 65 ± 5 mW/cm^2 (total fluence of 118 J/cm^2). As the plating technique employed to determine % survival did not allow for detection of survival rates of <0.0001%, data points below the detection limit were set to 0.0001% survival for graphing purposes, corresponding to the shaded area.