Pentafluorophenyl-based Single-Chain Polymer Nanoparticles as a Versatile Platform towards Protein Mimicry

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Figure S1. Conversion plots of p(PFPMA-XMA) polymerization.

Figure S2. $^1$H NMR spectrum of the deprotection of XMA monomer in PFP-SCNP using ethanolamine. The signal at 4.6 ppm disappears, while a new signal appears at 4.2 ppm.
**Figure S3.** Overlay of GPC traces for the **PFP-polymer** precursors and the corresponding nanoparticles (**PFP-SCNPs**) for different precursor chain lengths.

**Figure S4.** Comparison of $^{19}$F NMR spectra of precursor **PFP-polymer** and subsequent **PFP-SCNP**, showing the broadening of the *ortho*-fluoro signal.
Figure S5. $^{19}$F NMR spectrum of SCNP-F1 before and after functionalization with $n$-butylamine.

Figure S6. $^1$H NMR spectrum of SCNP-F1, indicating the amide and butyl region.
Figure S7. $^1$H NMR spectrum of SCNP-F2.

Figure S8. Cytotoxicity studies of SCNP-F2 on hCMEC/D3 cells.
Figure S9. $^1$H NMR spectra of SCNP-F2 (bottom) and SCNP-F3 (top).

Figure S10. GPC traces of SCNP-F3a (a) and SCNP-F8 (b).
**Figure S11.** $^{19}$F NMR spectra indicating 5% inclusion of tyrosine methyl ester and subsequent endcapping by L-aminoglycerol releasing the remaining pentafluoro phenol.

**Figure S12.** $^1$H NMR spectra of SCNP-F2 (bottom) and SCNP-F3 (top), indicating the additional amide peak for the tyrosine methyl ester moiety.
Figure S13. $^1$H NMR spectrum of SCNP-F5.

Figure S14. $^{13}$C NMR spectra of SCNP-F2 (bottom) and SCNP-F6 with 2% enriched GSH (top).