## **Supporting information**

## Design of Donor-Acceptor conjugated polymers based on Diketopyrrolopyrrole for NIR-II multifunctional imaging

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**Figure S1.** <sup>1</sup>H-NMR spectrum of 2,6-Dibromo-4,8-bis (5-(2-ethylhexyl) thiophene-2-yl) phenylpropan [1,2-b:4,5-b'] dithiophene.



**Figure S2.** <sup>1</sup>H-NMR spectrum of 2,5-bis (2-butyloctyl) -3,6-bis (4-(trimethylsilyl)) cyclopentyl-1,3-diene-1yl) -2,5-dihydropyrrolo [3,4-c] pyrrole-1,4-dione.



**Figure S3.** <sup>1</sup>H-NMR spectrum of 5,7-dibromo-2,3-dihydrothieno[3,4-*b*][1,4]dioxine.



**Figure S4.** <sup>1</sup>H-NMR spectrum of 3-(5-(7-methyl-2,3-dihydrothieno[3,4-b][1,4]dioxin-5-yl)thiophen-2-yl)-6-(5-methylthiophen-2-yl)-2,5-bis(2-octyldodecyl)-2,5-dihydropyrrolo[3,4-c]pyrrole-1,4-dione.



Figure S5. Multi-excitation emission spectra of PBDT-DPP (Excitation wavelength range 650-850 nm, emission wavelength range 850-1120 nm).



Figure S6. Multi-excitation emission spectra of EDOT-DPP (Excitation wavelength range 650-850 nm, emission wavelength range 850-1120 nm).



Figure S7. Organ imaging after three weeks of single injection of EDOT-DPP nanoparticles.