DPD simulations on morphologies and structures of blank PLGA-\(b\)-PEG-\(b\)-PLGA polymeric micelle and Docetaxel-loaded PLGA-\(b\)-PEG-\(b\)-PLGA polymeric micelle

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Fig. S1 The radial distribution functions between beads of the blank PLGA-\(b\)-PEG-\(b\)-PLGA micelles at different simulation times.

Fig. S2 Density profiles of E, L and G beads of the blank PLGA-\(b\)-PEG-\(b\)-PLGA micelles as a function of copolymer concentration.
**Fig. S3** The size of the blank and Dtx-loaded PLGA<sub>3</sub>-b-PEG<sub>7</sub>-b-PLGA<sub>3</sub> micelles as a function of the copolymer concentration.

**Fig. S4** Density profiles of E, L and G beads of the blank PLGA<sub>3</sub>-b-PEG<sub>7</sub>-b-PLGA<sub>3</sub> micelles as a function of the PEG block length.

**Fig. S5** The radial distribution functions between beads of the Dtx-loaded PLGA<sub>3</sub>-b-PEG<sub>7</sub>-b-PLGA<sub>3</sub> micelles at different simulation times.
Fig. S6 Density profiles of E, L and G beads of the PLGA$_3$-b-PEG$_7$-b-PLGA$_3$ copolymers and Dtx beads as a function of copolymer concentration.

Fig. S7 Density profiles of E, L and G beads of the PLGA$_3$-b-PEG$_7$-b-PLGA$_3$ copolymers and Dtx beads as a function of the PEG block length.

Fig. S8 Density profiles of E, L and G beads of the PLGA$_3$-b-PEG$_7$-b-PLGA$_3$ copolymers and Dtx beads as a function of the Dtx drug concentration.
**Fig. S9** Morphologies snapshots of Dtx-loaded PLGA₃-b-PEG₇-b-PLGA₃ micelles under different shear rates \( v = 0.2, 1.2, 2.0, 3.4 \).