**Supporting Information**

Mussel Inspired Self-Expandable Tubular Hydrogel With Shape Memory Under NIR for Potential Biomedical Application

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**Figure 1:** FESEM micrograph of (A) PDNs with diameter around 260 nm. (B) P(AA-co-MMA) @0.3%PDNs hydrogel matrix showing an average diameter of 645 nm polydopamine nanospheres.

**Movie are provided as follows:**

**Movie S1.** Shape memory recovery of cylindrical shape hydrogel P(AA-co-MMA) @0.1%PDNs, P(AA-co-MMA) @0.3%PDNs and P(AA-co-MMA) @0.5%PDNs under NIR irradiation.
Movie S2. Shape memory recovery of organomy, spiral and rod shaped from P(AA-co-MMA) @0.3%PDNs under NIR.