

## Supplementary information

### Title:

**pH-responsive magnetic micelles gelatin-g-poly(NIPAAm-co-DMAAm-co-UA)-g-dextran/Fe<sub>3</sub>O<sub>4</sub> as hydrophilic drug carrier**

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**Note added after first publication:** This Supplementary Information file replaces that originally published on 30<sup>th</sup> May 2017, and contains a corrected author list.

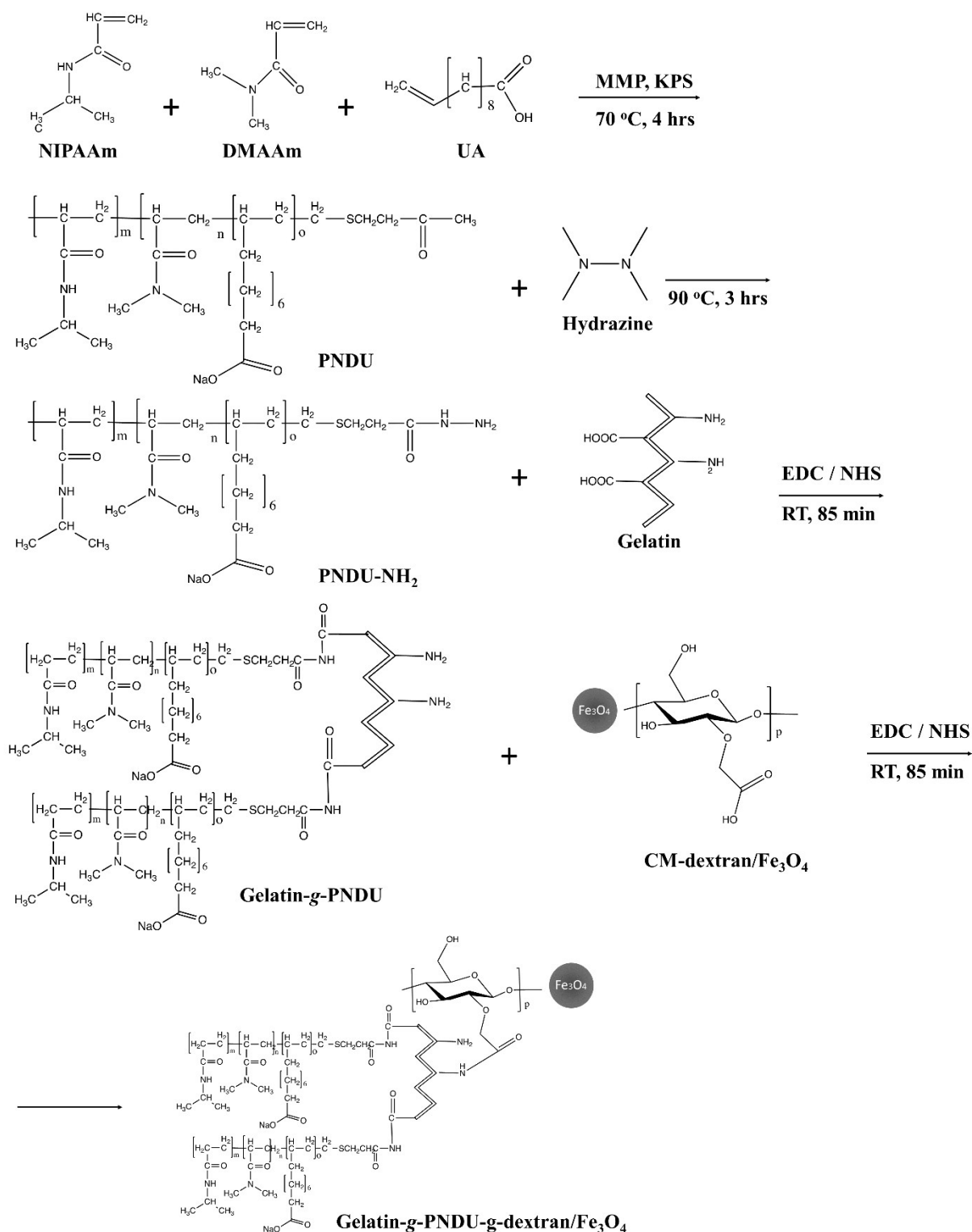


Fig. S1. Schematic diagram of the formation process of Gelatin-g-dextran/Fe<sub>3</sub>O<sub>4</sub> (GPDF) micelles

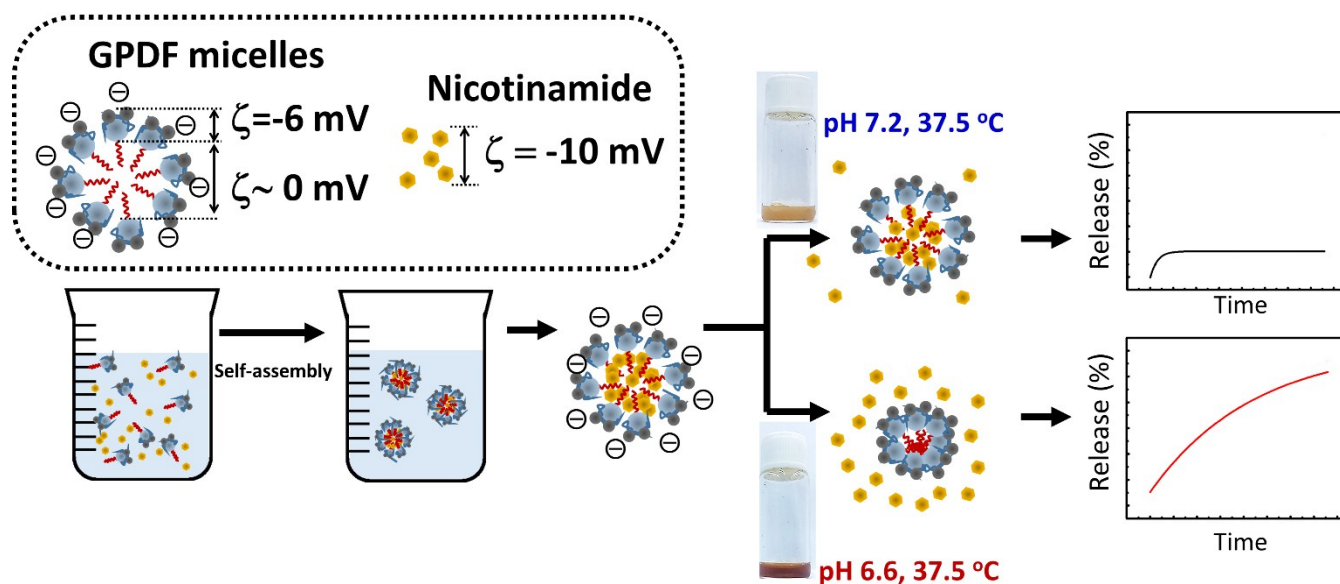


Fig. S2. Schematic diagram show the GPDF encapsulated nicotinamide. Zeta potential ( $\zeta$ ) of GPDF micelle and nicotinamide are indicated.

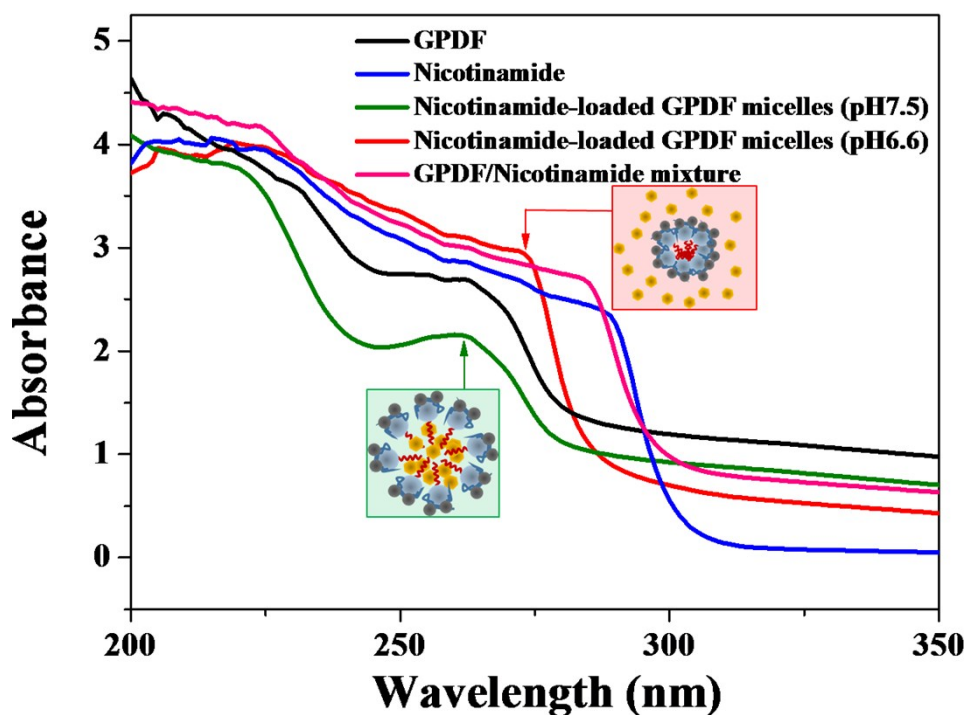


Fig. S3. UV spectra of nicotinamide, GPDF, nicotinamide-loaded GPDF micelles at both pH 7.5 and pH 6.6 and mixture of GPDF and nicotinamide. Nicotinamide-loaded GPDF micelles show clear nicotinamide signal at pH 6.6.

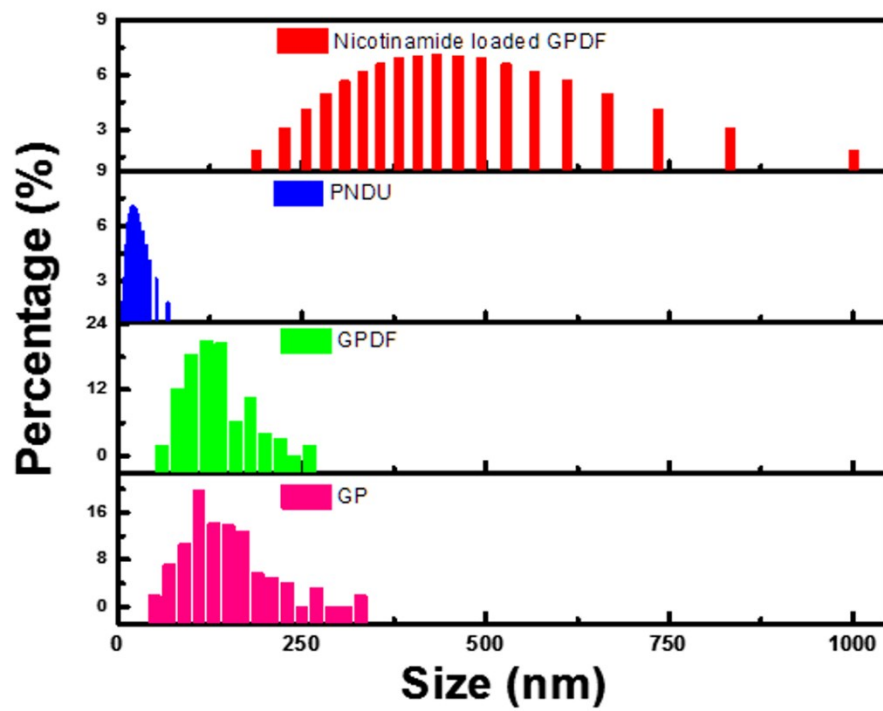


Fig.S4 DLS data of nicotinamide-loaded GPDF micelles, PNDU, the GPDF and GP.