## Supplementary material for:

## A novel glucosamine-linked fluorescence chemosensor for the detection of pyrophosphate in aqueous medium and live cells

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**Fig. S1** <sup>1</sup>H NMR of **GN** (500 MHz, DMSO-*d*<sub>6</sub>).



**Fig. S2** <sup>13</sup>C NMR of **GN** (125 MHz, DMSO-*d*<sub>6</sub>).



Fig. S3 HR MS of GN.



**Fig. S4** The linear responses of **GN**-Cu<sup>2+</sup> (5  $\mu$ M) versus low concentration PPi (0–20  $\mu$ M) at 550 nm in HEPES aqueous buffer (DMSO: H<sub>2</sub>O = 1:9, 20 mM, pH 7.4). Excitation was performed at 450 nm.



**Fig. S5** Benesi-Hildebrand plot (emission at 550 nm) of **GN**-Cu<sup>2+</sup> (10  $\mu$ M) based on 1:1 binding stoichiometry with PPi. Excitation was performed at 450 nm.