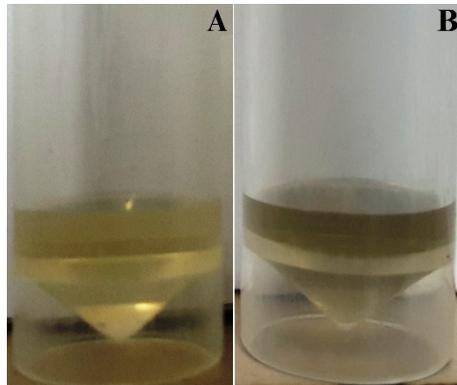




25 **Fig. S1.** Photograph of AgNPs formed during addition of (A) AChE (4 mU), ATCh (1 mM),  
 26 AgNO<sub>3</sub> (0.1 mM), NaBH<sub>4</sub> (1 mM), and (B) in presence of Hg<sup>2+</sup> (10×10<sup>-13</sup> M).

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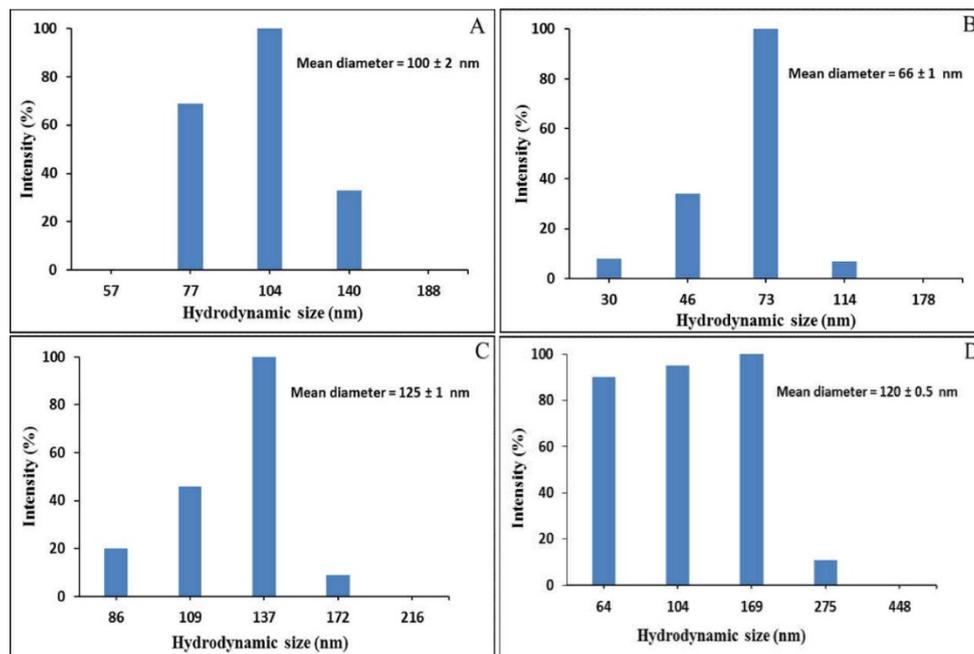
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31 **Fig. S2.** Hydrodynamic size distribution for AgNPs formed in presence of (A) AgNO<sub>3</sub> (0.1  
 32 mM) and NaBH<sub>4</sub> (1 mM). (B) AgNO<sub>3</sub> (0.1 mM), NaBH<sub>4</sub> (1 mM), AChE (4 mU), and ATCh  
 33 (1 mM). (C) After the addition of Hg<sup>2+</sup> (10×10<sup>-13</sup> M), and (D) Pb<sup>2+</sup> (1×10<sup>-9</sup> M) to the system,  
 34 respectively.

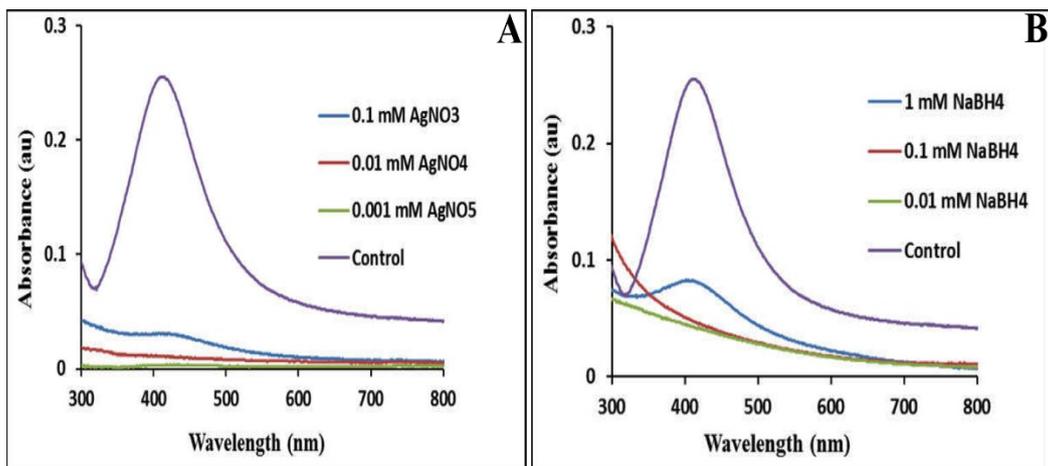
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36

37 **Fig. S3.** UV-visible spectra for optimization of AgNPs formed during the addition of (A)  
38 different concentrations of AgNO<sub>3</sub> (0.1, 0.01, and 0.001 mM) and fixed concentration of  
39 NaBH<sub>4</sub> (1 mM), (B) different concentrations of NaBH<sub>4</sub> (1.0, 0.1, and 0.001 mM) and fixed  
40 concentration of AgNO<sub>3</sub> (0.1 mM). The control has AgNO<sub>3</sub> (0.1 mM), NaBH<sub>4</sub> (1 mM),  
41 AChE (4 mU), and ATCh (1 mM).

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