

**Supplementary Figures**

**for**

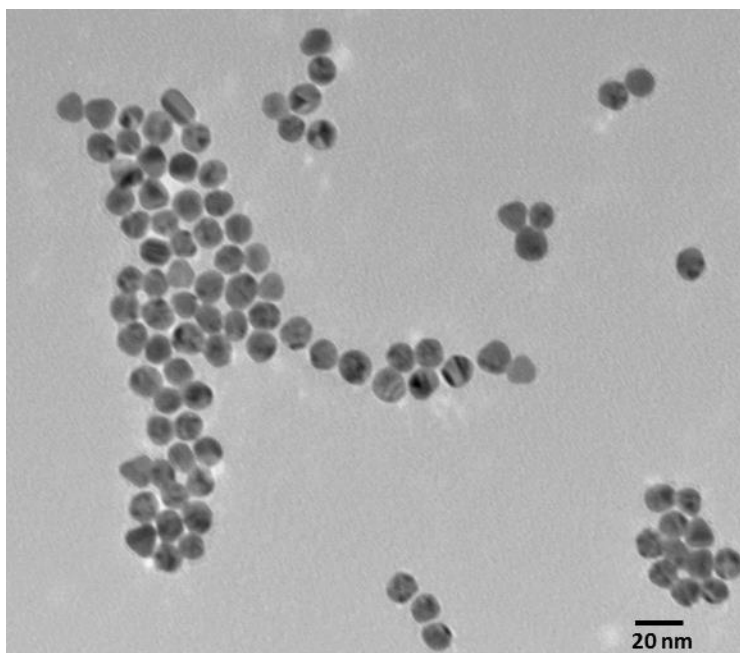
**Understanding the Competitive Interactions in the Aptamer–Gold Nanoparticle  
Based Colorimetric Assays using Surface Enhanced Raman Spectroscopy (SERS)**

Shintaro Pang and Lili He<sup>a\*</sup>

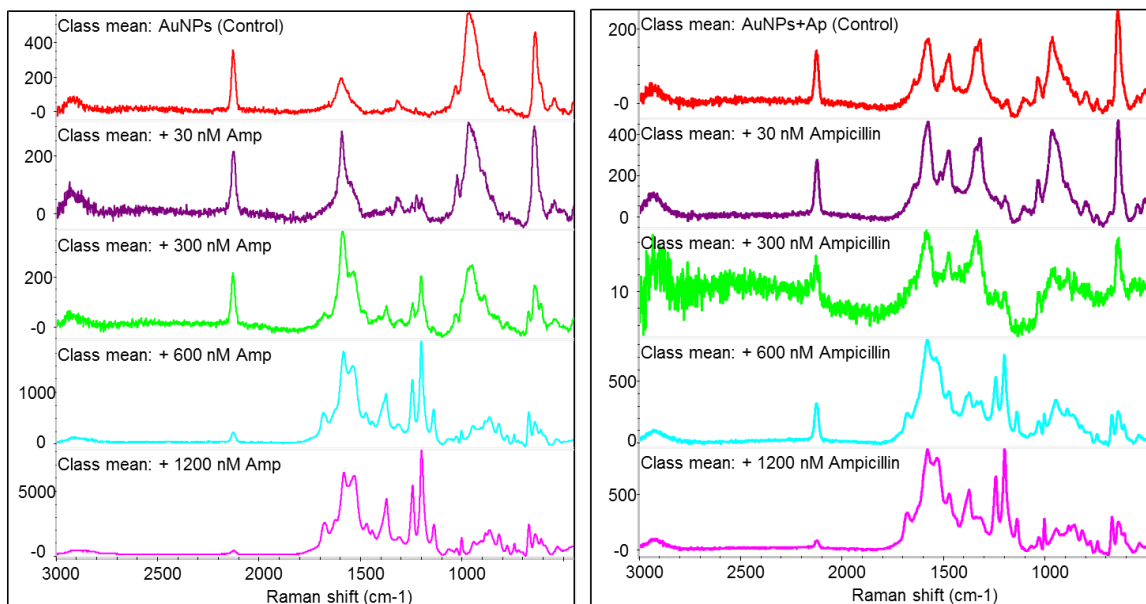
<sup>a</sup> Department of Food Science, University of Massachusetts, Amherst, MA 01003, USA

\* Corresponding Author

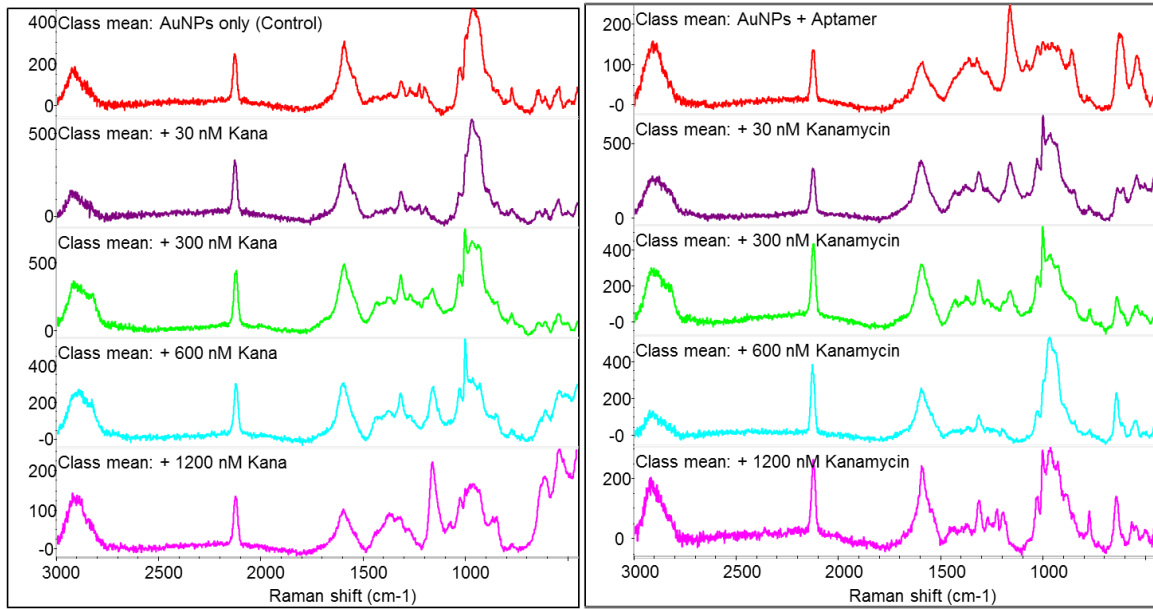
Telephone: (413)-545-5847. Fax: (413)-545-1262. Email: [lilihe@foodsci.umass.edu](mailto:lilihe@foodsci.umass.edu).



**Fig. S1** TEM image of synthesized AuNPs with an average diameter of 13 nm.



**Fig. S2** Raw SERS spectra of ampicillin at different concentrations (0, 30, 300, 600, 1200 nM) mixed with AuNPs or Aptamer + AuNPs



**Fig. S3** Raw SERS spectra of kanamycin at different concentrations (0, 30, 300, 600, 1200 nM) mixed with AuNPs or Aptamer + AuNPs