Electronic Supplementary Material (ESI) for Analyst.

Lubricin (PRG-4) anti-fouling coating for surface-enhanced Raman spectroscopy biosensing: Towards a hierarchical separation system for analysis of biofluids

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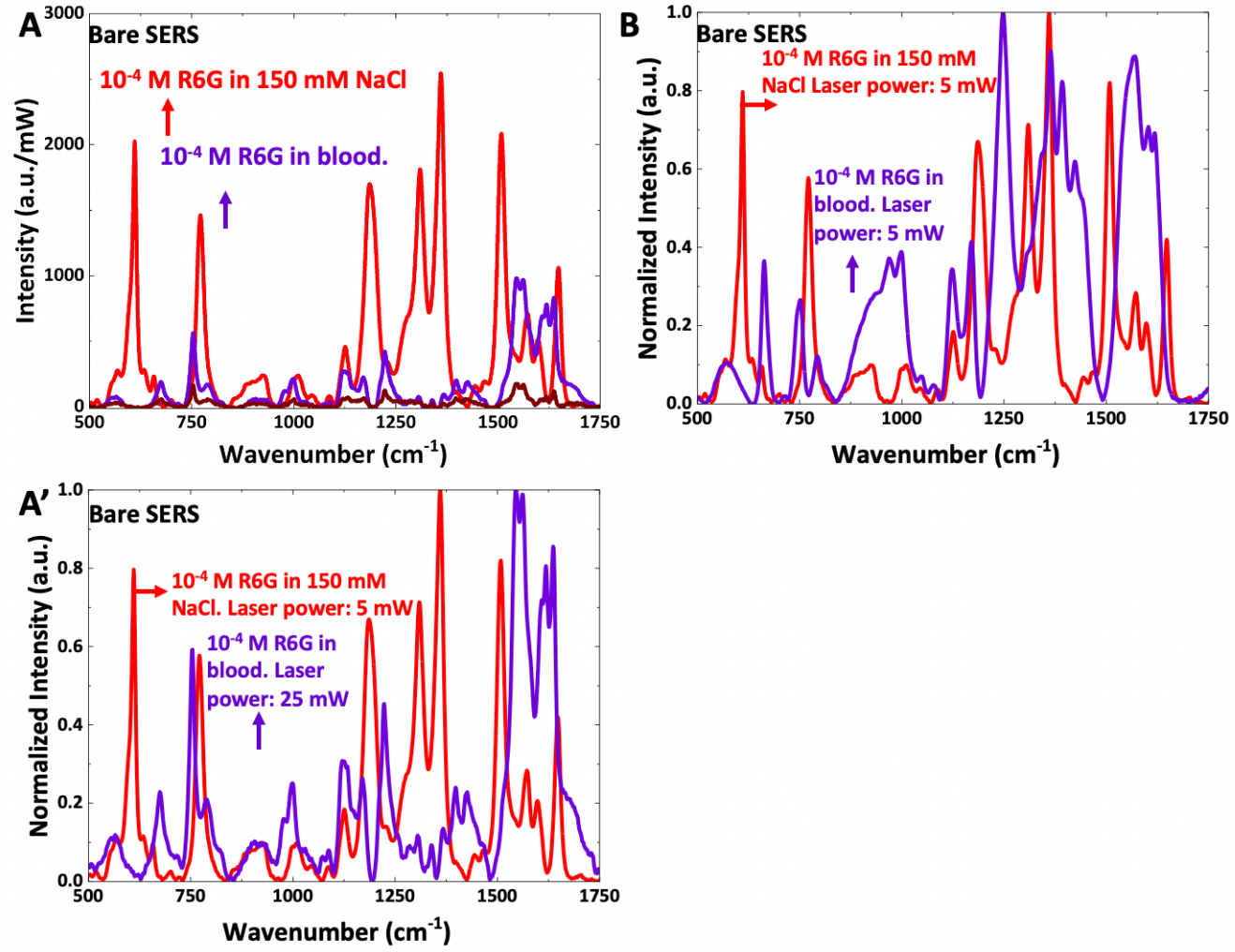

Figure S1. (A) Raman spectra of bare SERS in R6G spiked in 150 mM NaCl (red), and bare SERS in R6G spiked in blood (Purple). The peaks intensities are normalized against laser power. All Raman spectra was collected using the same helium-neon laser (633 nm), the integration time was 30s, and the laser power for R6G on AuNPs was 25 mW for bare SERS in R6G spiked in blood. (A') Normalized Raman spectra of bare SERS in R6G spiked in 150 mM NaCl (red), and bare SERS in R6G spiked in blood (Purple), plotted in (A), respectively. (B) Normalized Raman spectra of bare SERS in R6G spiked in 150 mM NaCl (red), and bare SERS in R6G spiked in blood (Purple) plotted in Fig. 3B, respectively.

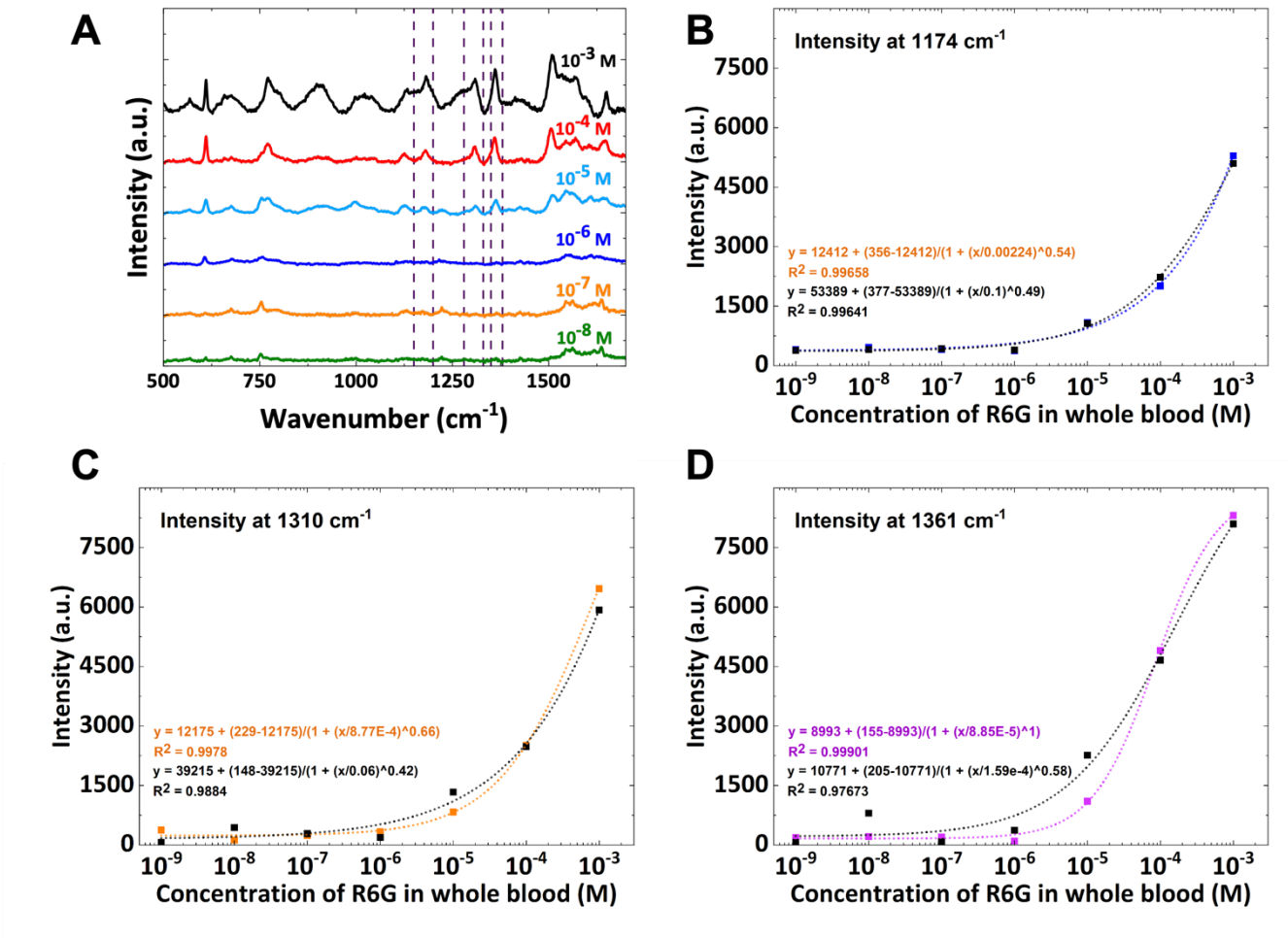

Figure S2. (A) Raman spectra of R6G spiked in unprocessed whole blood on LUB-AuNPs surface at concentration ranging from 10^{-3} M to 10^{-8} M. (B-D) R6G detection curve generated by plotting the intensity of the peak at 1174 cm^{-1}, 1310 cm^{-1}, and 1361 cm^{-1} as a function of the R6G concentration, respectively. For each intensity, the two independent SERS measurements were conducted on the different areas of the same sample. All Raman spectra was collected using the same helium-neon laser (633 nm), the integration time was 30s, and the laser power was 25 mW.