

Supplementary Information

Gold and silver nanoparticle interactions with human proteins: Impact and implications in biocorona formation

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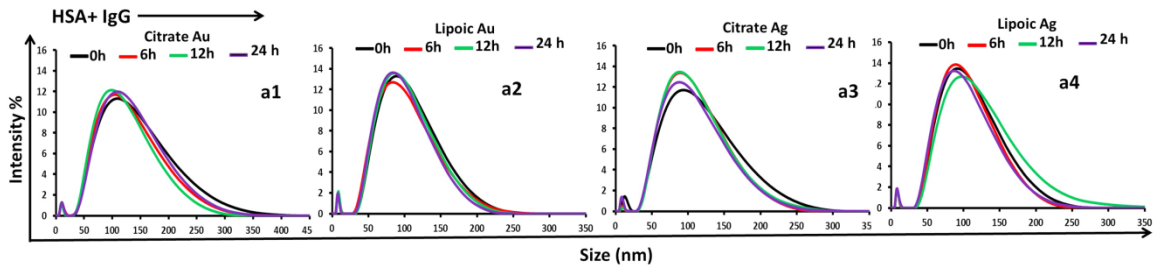
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Supplementary Figure S1. Time dependent size distribution profiling of HSA + IgG corona over (a1) citrate-Au, (a2) lipoic-Au, (a3) citrate-Ag and (a4) lipoic-Ag

Supplementary Table S1. Time dependent zeta potential analysis of NP in PBS.

Time (h)	Gold (mV)		Silver (mV)	
	Citrate	Lipoic	Citrate	Lipoic
0	-11.2 ± 3.4	-19.8 ± 2.4	-25.9 ± 1.9	-33.4 ± 3.1
6	-12.7 ± 2.6	-15.7 ± 2.1	-21.4 ± 2.6	-30.2 ± 2.8
12	-11.6 ± 3.7	-13.8 ± 3.8	-21.6 ± 2.5	-29.1 ± 4.0
24	-10.9 ± 2.8	-12.4 ± 4.1	-17.3 ± 3.3	-20.1 ± 3.6

Supplementary Table S2. Time dependent zeta potential analysis of proteins in PBS.

Time (h)	HSA (mV)	IgG (mV)	Fibrinogen (mV)
0	-12.8 ± 1.4	5.50 ± 2.2	-5.51 ± 1.2
6	-12.2 ± 3.1	4.48 ± 1.8	-5.30 ± 2.6
12	-12.2 ± 2.0	4.31 ± 2.5	-4.26 ± 3.1
24	-11.8 ± 2.6	4.99 ± 2.4	-4.86 ± 1.9

Supplementary Table S3. Time dependent zeta potential analysis of NP-fibrinogen corona.

Time (h)	Citrate-Au-Fibrinogen (mV)	Lipoic-Au-Fibrinogen (mV)	Citrate-Ag-Fibrinogen (mV)	Lipoic-Ag-Fibrinogen (mV)
0	-4.30 ± 0.38	-4.56 ± 1.2	-4.78 ± 1.3	-4.43 ± 0.8
6	-4.04 ± 1.03	-4.14 ± 1.6	-4.16 ± 1.1	-4.11 ± 1.3
12	-3.06 ± 0.4	-3.27 ± 0.89	-3.65 ± 1.6	-3.94 ± 1.1
24	-3.07 ± 0.19	-3.19 ± 1.5	-3.1 ± 1.7	-3.22 ± 1.0

Supplementary Table S4. Time dependent zeta potential analysis of NP-HSA + fibrinogen corona.

Time (h)	Citrate-Au-HSA+ Fibrinogen (mV)	Lipoic-Au-HSA+ Fibrinogen (mV)	Citrate-Ag-HSA + Fibrinogen (mV)	Lipoic-Ag-HSA + Fibrinogen (mV)
0	-2.97 ± 0.8	-3.11 ± 0.9	-3.92 ± 0.12	-3.23 ± 1.21
6	-2.56 ± 1.2	-3.03 ± 1.2	-3.99 ± 1.1	-3.71 ± 0.9
12	-2.23 ± 0.5	-3.12 ± 0.3	-3.47 ± 2.2	-3.24 ± 1.4
24	-2.83 ± 1.3	-3.04 ± 1.4	-2.6 ± 0.32	-2.72 ± 0.2

Supplementary Table S5. Time dependent zeta potential analysis of NP-HSA + IgG + fibrinogen corona.

Time (h)	Citrate-Au-HSA + IgG + Fibrinogen (mV)	Lipoic-Au-HSA+ IgG + Fibrinogen (mV)	Citrate-Ag-HSA + IgG + Fibrinogen (mV)	Lipoic-Ag-HSA + IgG + Fibrinogen (mV)
0	-3.09 ± 1.6	-4.12 ± 2.1	-3.43 ± 1.6	-3.98 ± 0.9
6	-3.45 ± 1.8	-4.22 ± 1.8	-3.12 ± 1.5	-4.08 ± 0.8
12	-3.03 ± 1.4	-3.98 ± 1.3	-3.23 ± 1.3	-3.69 ± 1.2
24	-3.12 ± 0.8	-3.64 ± 1.3	-2.94 ± 1.0	-3.68 ± 1.4

Supplementary Table S6. Time dependent zeta potential analysis of NP-HSA + IgG corona.

Time (h)	Citrate-Au-HSA+ IgG (mV)	Lipoic-Au-HSA+ IgG (mV)	Citrate-Ag-HSA + IgG (mV)	Lipoic-Ag-HSA + IgG (mV)
0	-4.01 ± 0.9	-4.98 ± 1.3	-3.67 ± 1.0	-3.89 ± 1.3
6	-3.32 ± 1.3	-4.86 ± 0.8	-3.42 ± 1.3	-4.04 ± 1.7
12	-3.89 ± 1.5	-4.51 ± 1.6	-3.68 ± 0.7	-3.78 ± 1.2
24	-3.56 ± 1.1	-4.21 ± 1.4	-2.45 ± 1.7	-3.80 ± 1.1