## Supporting Information for Surface Coating of Nanoparticles Reduces Background Inflammatory Activity While Increasing Particle Uptake and Delivery

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Figure S1. SEM image of coated PS particle 1,677x with histogram of particle size distribution.

## **PS** Coat continued



Figure S2. SEM image of coated PS particle 80,000x.





Figure S4. EDS data of coated PS particles sputtered with Au/Pd.



 Spectrum 1

 0
 2
 4
 6
 8
 10
 12
 14
 16
 18
 20

 Full Scale 10766 cts Cursor: 0.000

 keV

Figure S5. SEM image of PS particle 5,000x with histogram of particle size distribution.

Figure S6. EDS data of PS particles sputtered with Ir.

## PMMA Coat



Figure S7. SEM image of coated PMMA particle 251x with histogram of particle size distribution.

#### **PMMA** Coat continued



Figure S8. SEM image of coated PMMA particle 1,999x.



Figure S9. EDS data for coated PMMA particles.

## PMMA



Figure S10. SEM image of PMMA particle 350x with histogram of particle size distribution.

#### **PMMA continued**



Figure S11. SEM image of PMMA particle 25,000x.



Figure S12. EDS data of PMMA particles sputtered with Ir.

## PLGA Coat



Figure S13. SEM image of coated PLGA particle 1,500x with histogram of particle size distribution.



Figure S14. SEM image of coated PLGA particles 1,857x.



Figure S15. EDS data of coated PLGA particles prepared in a solution of PBS.

## PLGA



Figure S16. SEM image of PLGA particle 1,200x with histogram of particle size distribution.

#### PLGA coat continued



**Figure S17.** SEM image of PLGA particles 10,833x.



Figure S18. EDS data of PLGA particles sputtered with Ir.

## PE Coat



Figure S19. SEM image of coated PE particles 100x with histogram of particle size distribution.

#### PE coat continued





Figure S21. EDS data of coated PE particles.



Figure S22. SEM image of PE particles 150x with histogram of particle size distribution.

#### **PE continued**





Figure S24. EDS of PE particles sputtered with Ir.

Particle	Size (micron)	Zeta Potential (mV)	Silicon (EDS)
PS	1.36	0.396	No
PS coat	1.62	-22.9	Yes
PMMA	4.94	0.316	No
PMMA			
coat	7.21	-23.8	Yes
PLGA	3.19	-0.833	No
PLGA coat	5.14	-2.02	Yes
PE	4.57	-21.2	No
PE coat	7.35	-33.8	Yes

Table S1. Table of DLS, Zeta potential and EDS data.

## Fluorescence

# Merge



Figure S25. Confocal microscopy image of PS-CpG beads at 20x magnification. Scale bar: 100 µm.



Figure S26. Flow cytometry plot of unlabeled PS particle.



**FSC-A (x1.000) Figure S27.** Flow cytometry gating for cells vs. beads using forward scatter vs. side scatter.



**Figure S28.** Forward scatter height vs. forward scatter width was used to distinguish single cells. Gating from figure S27 was applied prior to doublet discrimination.



**Figure S29.** Flow cytometry histograms showing fluorescence of unstained and fluorescent E.coli (top), PS bead and PS-CpG (middle), and PS coat and PS coat functionalized with CpG (bottom).