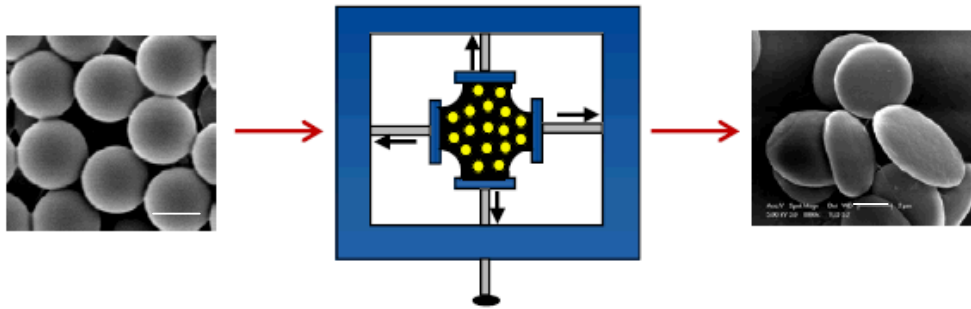


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Supplementary Information

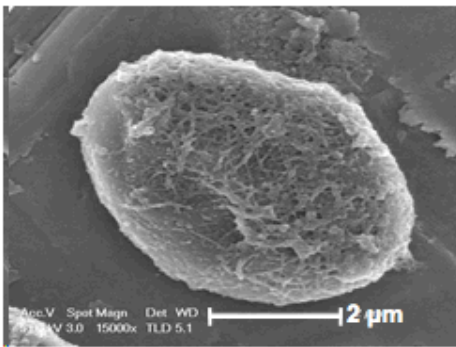
3 1. Synthesis of polymeric template particles with oblate ellipsoid shape.



4

5 *Figure S1. Spheres are stretched in 2-D using the film stretching method to obtain particles*
 6 *shaped as oblate ellipsoids of the same volume [15] white (scale bars correspond to 2 μm).*

7 2. Synthetic platelets made with actin



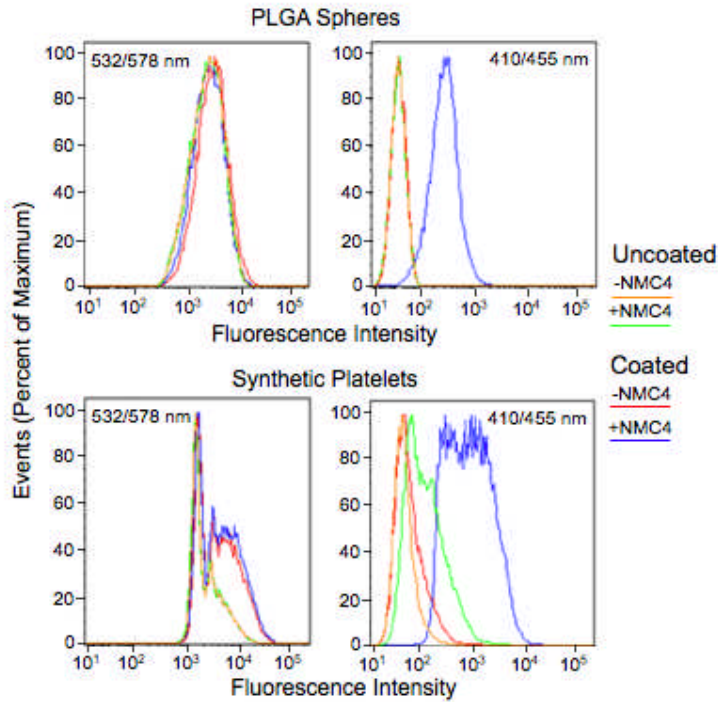
8

9 *Figure S2. Actin was incorporated in the layer by layer fabrication process of SPs to create*
 10 *closer mimics of natural platelets which possess an actin cytoskeleton.*

11 3. Flow Cytometry

12 Microparticle coating and detection of bound targeting ligand are described in the method
 13 section. PLGA spheres showed a much narrower fluorescence distribution than synthetic
 14 platelets, suggesting size variability in the latter population. Microparticle aggregation in
 15 suspension could possibly explain this observation, but microscopy imaging showed that the

1 synthetic platelets were not aggregated; thus, their wide fluorescence distribution may result
 2 from the unique surface texture.



3

4 *Figure S3. Flow cytometry histograms of PLGA spheres (top) or synthetic platelets (bottom)*
 5 *containing a red fluorochrome (excitation/emission 532/578 nm in the flow cytometer)*
 6 *incubated (Coated) or not (Uncoated) with the Fab fragment of NMC4 labeled with Pacific*
 7 *Blue fluorochrome (excitation/emission 410/465 nm).*

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