Electronic Supplemental Information (ESI)

Synthesis and Characterization of Si₉-M-C₃-NH₂ and Si₉-M-C₃-NH₂-Dex (M = 0, Mn, Fe) – The amine terminated particles and their dextran coated analogues were synthesized as outlined in our previous publications.¹³ The Si₉-M-C₃-NH₂ were analyzed by transmission electron microscopy (TEM) while dynamic light scattering (DLS) was used to analyze the dextran coated analogues Si₉-M-C₃-NH₂-Dex. The TEM images for Si₉-M-C₃-NH₂ can be found in our earlier publications. The silicon nanoparticles Si-C₃-NH₂ have a core diameter of 3.9±1.3 nm¹ as determined by TEM while the dextran coated silicon nanoparticles Si-C₃-NH₂-Dex have a hydrodynamic diameter of 7.6±1.0 nm as determined by DLS (Figure S1). The TEM and DLS data for Si₉-M₀-C₃-NH₂ and Si₉-M₀-C₃-NH₂-Dex is published and can be found elsewhere.²⁻³ The core diameter for Si₉-Fe-C₃-NH₂ is measured to be 2.99±0.99 nm while the dextran coated analogue Si₉-Fe-C₃-NH₂-Dex have a diameter of 8.81±0.70 nm (Figure S2).

Figure S1: DLS of dextran coated silicon nanoparticles Si-C₃-NH₂-Dex.
Figure S2: DLS of dextran coated iron doped silicon nanoparticles $\text{Si}_{Fe}C_3\text{-NH}_2$-Dex.

References: