SUPPORTING INFORMATION

G-CSF nanocarriers for stimulation of the immune system (Part I): synthesis and biodistribution studies

Gabriel De Crozals[†ǂ], David Kryza[‡ ⊢ǂ], Gloria Jiménez Sánchez[§], Stéphane Roux[§], Doriane Mathé[¥], Jacqueline Taleb[‡], Charles Dumontet[¥]*, Marc Janier[‡ ⊢]*, and Carole Chaix[†]*

[†]Institut des Sciences Analytiques, UMR CNRS 5280/Université Claude Bernard Lyon 1/ENS de Lyon, 5, rue de la Doua, 69100 Villeurbanne Cedex, France.

[‡]UNIV Lyon - Université Claude Bernard Lyon 1, LAGEP UMR 5007 CNRS Villeurbanne, France

[⊢]Hospices Civils de Lyon, plateforme Imthernat, Hôpital Edouard Herriot, 69437 Lyon, France

[§]Institut UTINAM, UMR CNRS 6213-Université de Bourgogne Franche-Comté, 25030 Besançon Cedex, France.

[¥] Cancer Research Center of Lyon, INSERM 1052/CNRS 5286/University Claude Bernard Lyon 1, Lyon, France

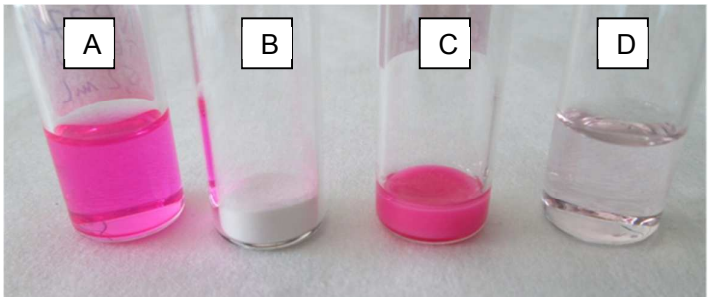


Figure S1. Visual control of the NP grafting. A: Solution of fluorescent silica nanoparticles in DMF, B: bare CPG support, C: CPG support after SiO_2NP grafting, D: Supernatant of the NP solution after the grafting step.

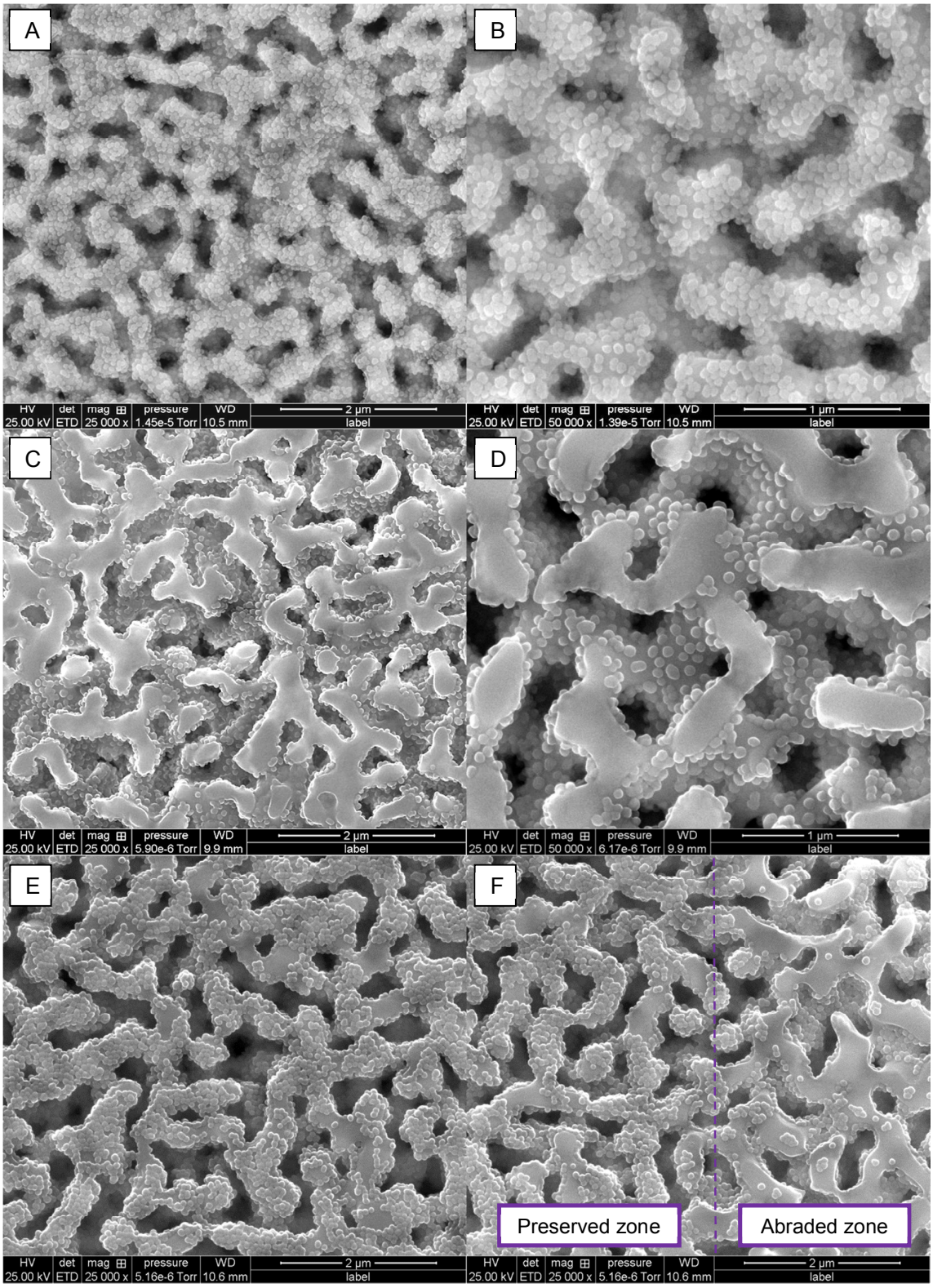


Figure S2. SEM observation of the SiO_2NP-CPG supports. A-B: SiO_2NP-CPG before SPS, C-D-E-F: SiO_2NP-CPG after SPS functionalization.

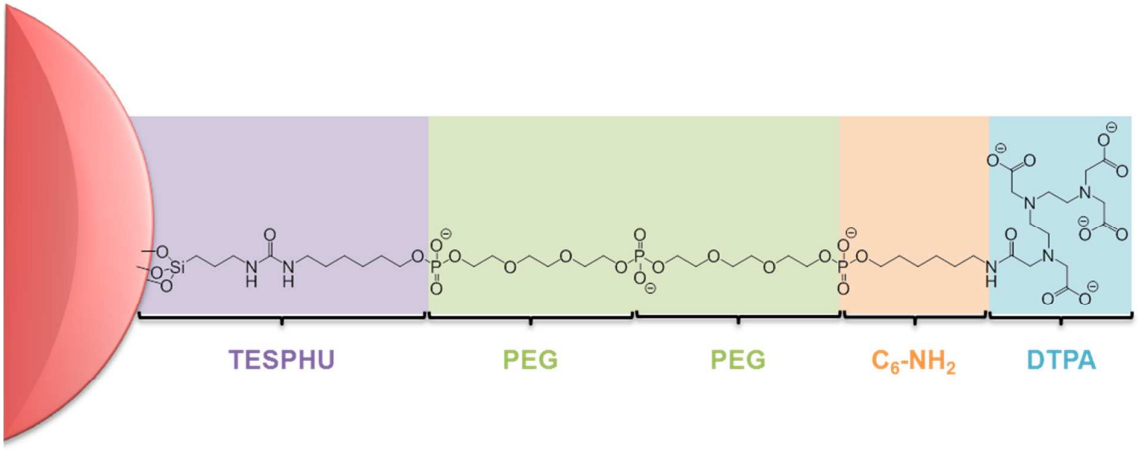


Figure S3. Schematic representation of the DTPA linker synthesized by solid phase synthesis on SiO_2NP. TESPHU: 3-(triethoxysilyl)propylhydroxyhexyl urea, PEG: polyethylene glycol, C_6-NH_2: aminohexyl, DTPA: diethylene triamine pentaacetic acid.

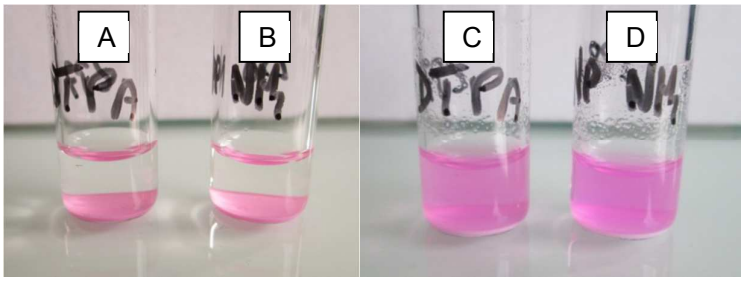
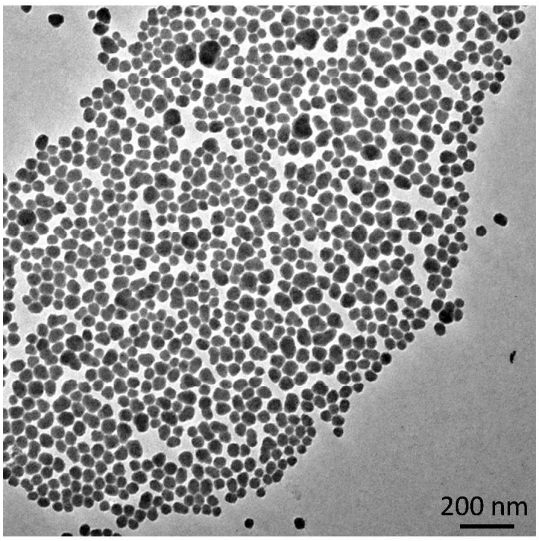


Figure S4. Nanoparticle release in solution by treatment with DBU 100 mM. A/B: SiO_2NP-DTPA and SiO_2NP-NH_2 on CPG supports, C/D: SiO_2NP-DTPA and SiO_2NP-NH_2 released from the CPG in solution after DBU treatment.

SiO_2NP-DTPA



AuNP-DTPA

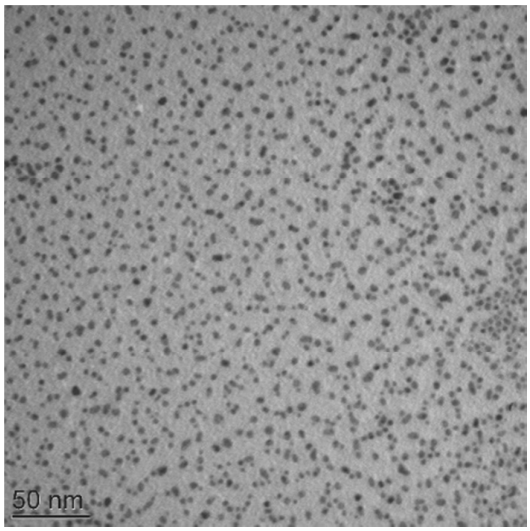


Figure S5. Transmission Electron Microscopy (TEM) images of SiO_2NP-DTPA and AuNP-DTPA