Supplementary Material

Article

The role of polymeric coatings for a safe-by-design development of biomedical gold nanoparticles assessed in Zebrafish embryo

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Table S1 HT_{50} calculated on embryos exposed to 0.001-1 nM of 6 or 15 nm GNP@PMA or GNP@PEG. hpf: hours post-fertilization; u: upper confidence limit; l: lower confidence limit; n.d.: not detectable

	GNP@PMA 6 nm hpf (u-l)	GNP@PMA 15 nm hpf (u-l)	GNP@PEG 6 nm hpf (u-l)	GNP@PEG 15 nm hpf (u-l)
Control	79.37 (76.90 - 83.02)	79.56 (76.71 - 84)	81.58 (77.64 - 85.56)	83.06 (78.57 - 87.86)
0.001 nM	81.51 (78.90 - 84.27)	75.66 (73.20 - 82.63)	85.19 (81.83 - 88.47)	80.82 (76.09 - 85.60)
0.01 nM	76.26 (74.02 - 80.97)	74.89 (72.57 - 82.74)	92.13 (87.72 - 97.86)	75.42 (69.59 - 81.07)
0.1 nM	78.12 (75.68 -82.17)	74.40 (72.09 - 83.80)	87.66 (83.17 - 91.63)	78.03 (71.14 - 84.93)
1 nM	74.74 (72.66 - 80.66)	76.09 (n.d.)	86.13 (82.08 - 90.16)	84.13 (76.89 - 92.02)

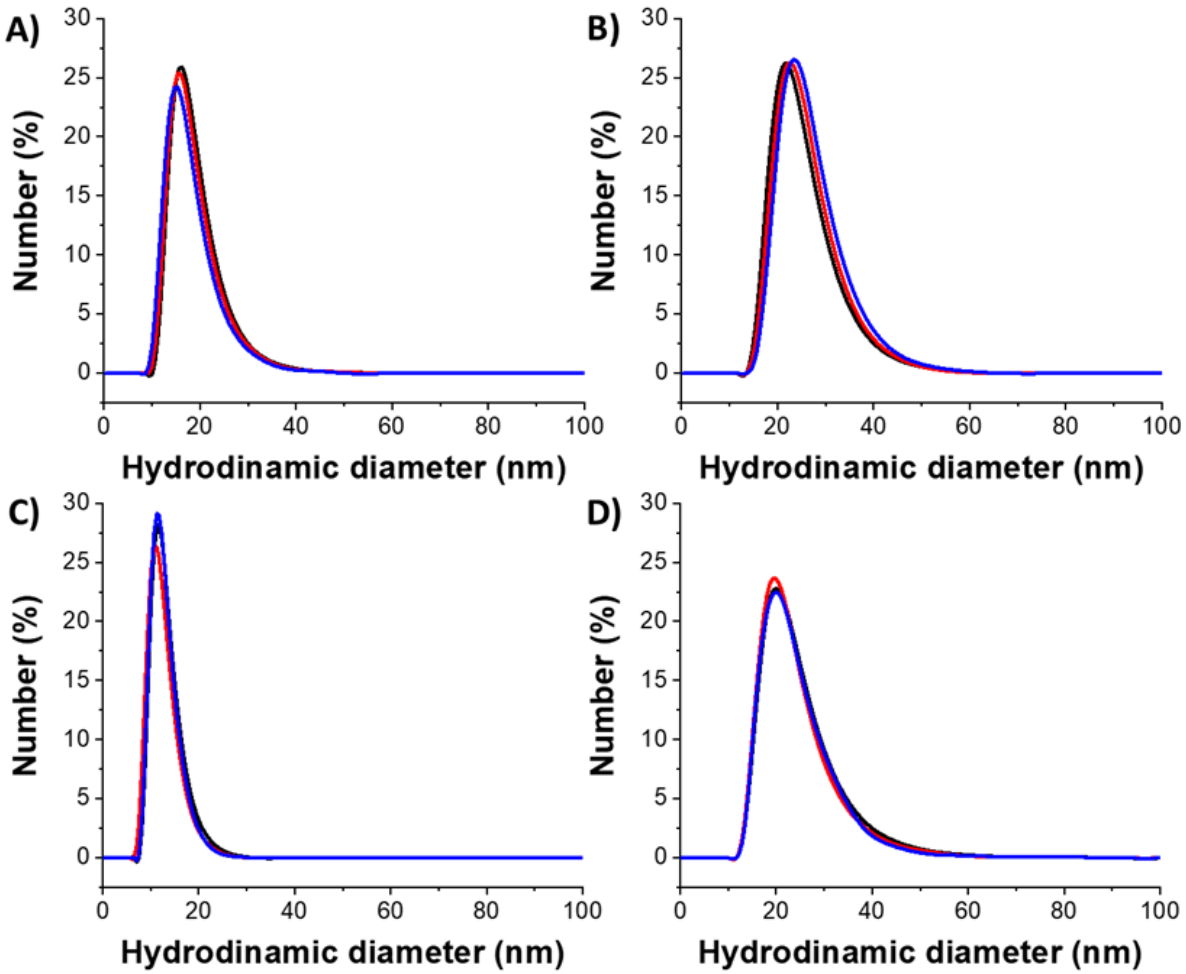

Figure S1. Distribution of hydrodynamic diameter about GNP measured by Dynamic Light Scattering of: A) 6 nm GNP@PEG, B) 15 nm GNP@PEG, C) 6 nm GNP@PMA, D) 15 nm GNP@PMA

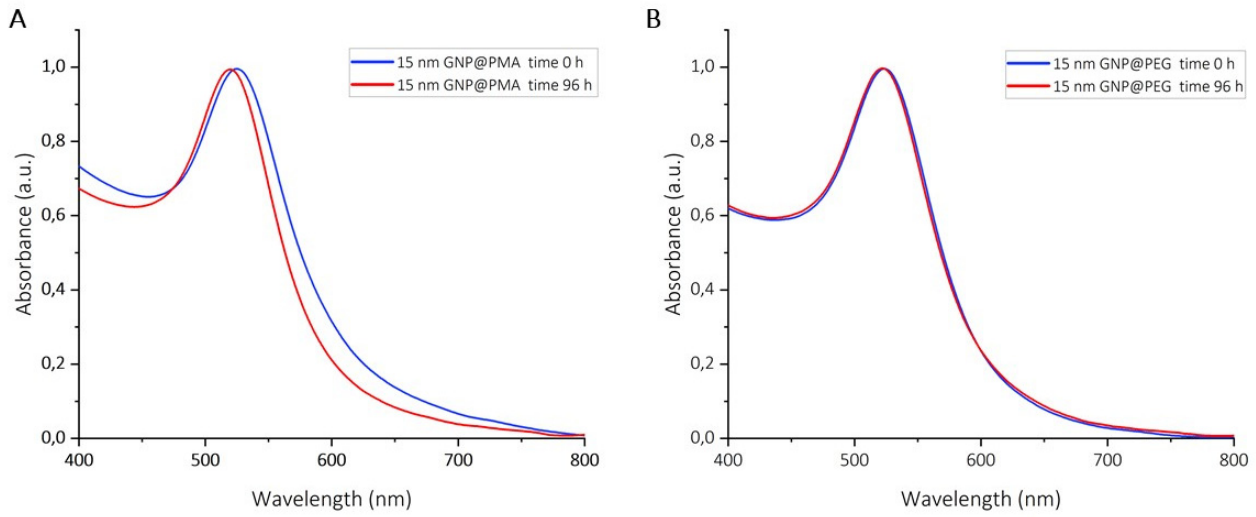

Figure S2. Stability of 15 nm GNP@PMA (A) and 15 nm GNP@PEG (B) in embryos solution was verified by UV-vis spectroscopy analysis immediately after their dilution (T= 0h) and after 96 hours of incubation (T= 96h).

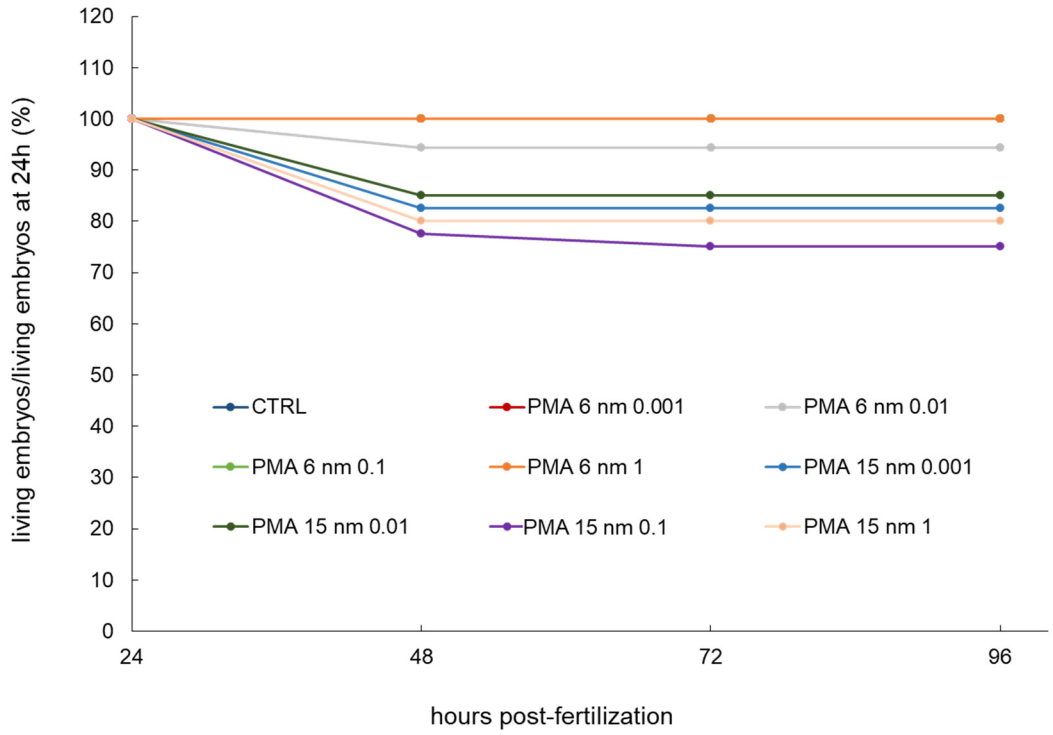

Figure S3. % of living embryos at 48, 72 and 96 hpf, after dechorionation (at 24 hpf) and exposure for to 6 nm or 15 nm GNP@PMA. Viability % has been calculated on the living embryos at 24 hpf. Embryos' viability values for CTRL, and for 6 nm GNP@PMA 0.001 and 0.1 nM, are all correspondent to 100% and therefore not visible into the graph.