

Supporting Information

Developmental and Cartilaginous Effects of Protein-coated SiO₂ Nanoparticles Corona Complex in Zebrafish Larvae

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Table S1. Experimental program for the toxicity assessments.

NP concentrations ($\mu\text{g/ml}$)	Exposure period	Toxicological endpoints	Results
0, 100, 200, 300, 400, 500	4-72 hpf	Hatch rate (48,54,72 hpf)	Figure. 1
0, 100, 200, 300, 400, 500	4-72 hpf	Mortality (54,72,120 hpf)	Figure. 2
0, 100, 200, 300, 400, 500	4-72 hpf	Malformations(96,120 hpf)	Figure. 3-5

Figure S1. An comprehensive view of the developmental conditions following exposure at 96 and 120 hpf.

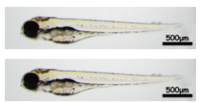
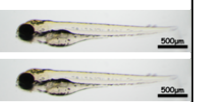
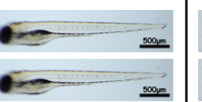
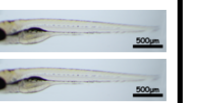
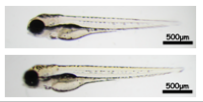
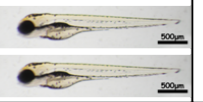
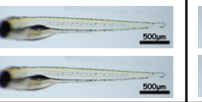
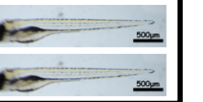
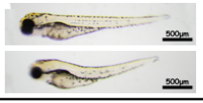
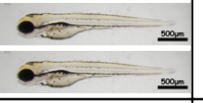
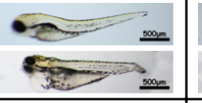
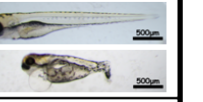
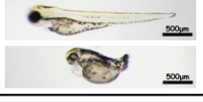
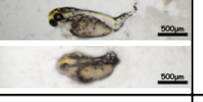
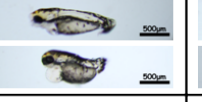
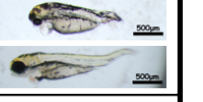
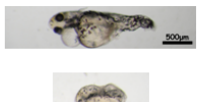
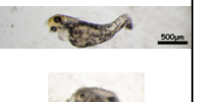
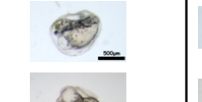
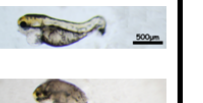
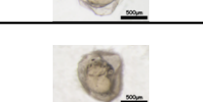
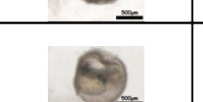
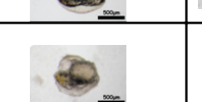
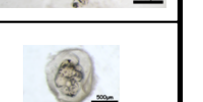
malformation	96hpf		120hpf	
	15nm	50nm	15nm	50nm
Ctrl				
100 $\mu\text{g/mL}$				
200 $\mu\text{g/mL}$				
300 $\mu\text{g/mL}$				
400 $\mu\text{g/mL}$				
500 $\mu\text{g/mL}$				
	Dead	Dead	Dead	Dead

Figure S2. The proportion of each malformation type for different diameters at the same concentration. The incidence of effects of different malformation types from exposure

to standard tank water (control) or 100, 200, 300, 400, or 500 $\mu\text{g}/\text{mL}$ SiO_2 NPs corona complex (in standard tank water).

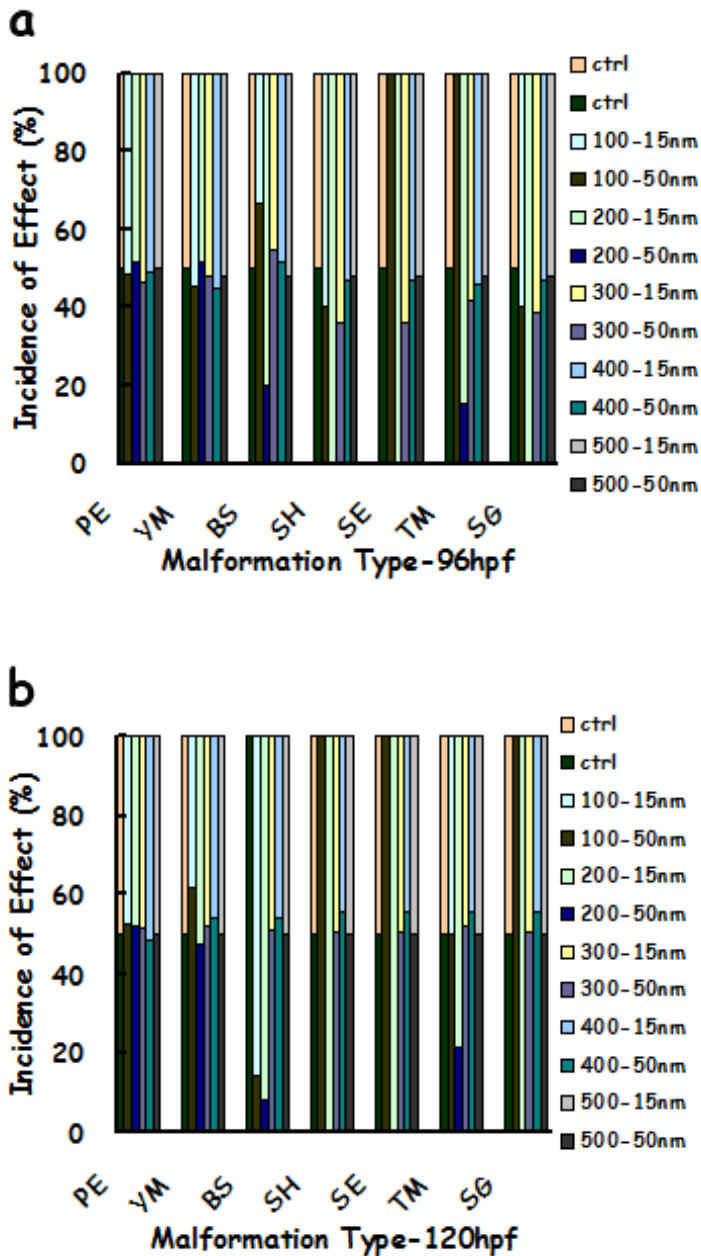


Figure S3. A comprehensive overview of the cartilaginous toxicity for the vertebral column development. Both 96 hpf and 120 hpf zebrafish exposed to different concentrations (200, 300 and 400 $\mu\text{g}/\text{mL}$) and different diameters (15 nm and 50 nm) of SiO_2 NPs corona

complex.

