

# The Effects of BSA-Stabilized Selenium Nanoparticles and Sodium Selenite Supplementation on the Structure, Oxidative Stress Parameters and Selenium Redox Biology in Rat Placenta

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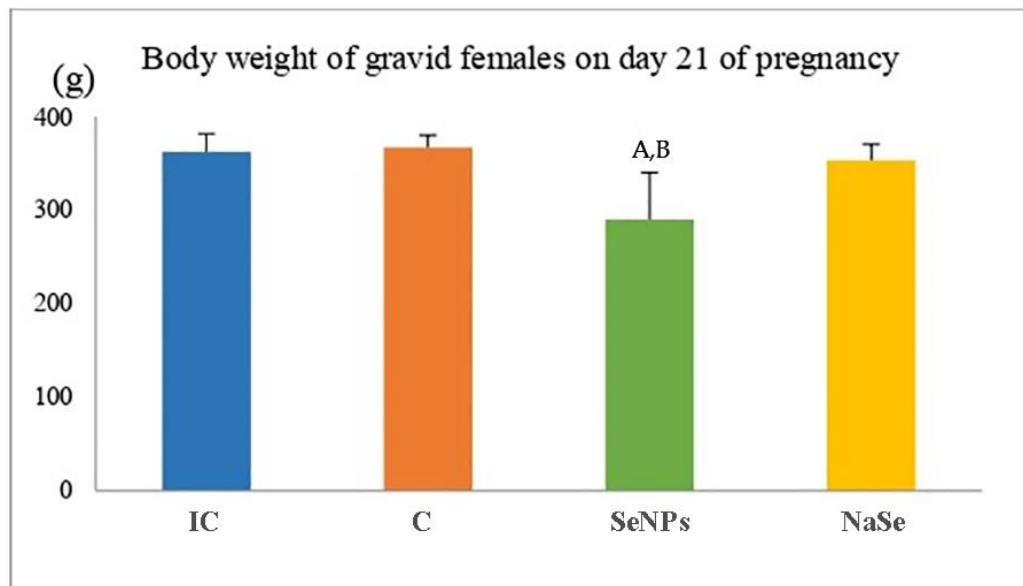
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## Supplementary material

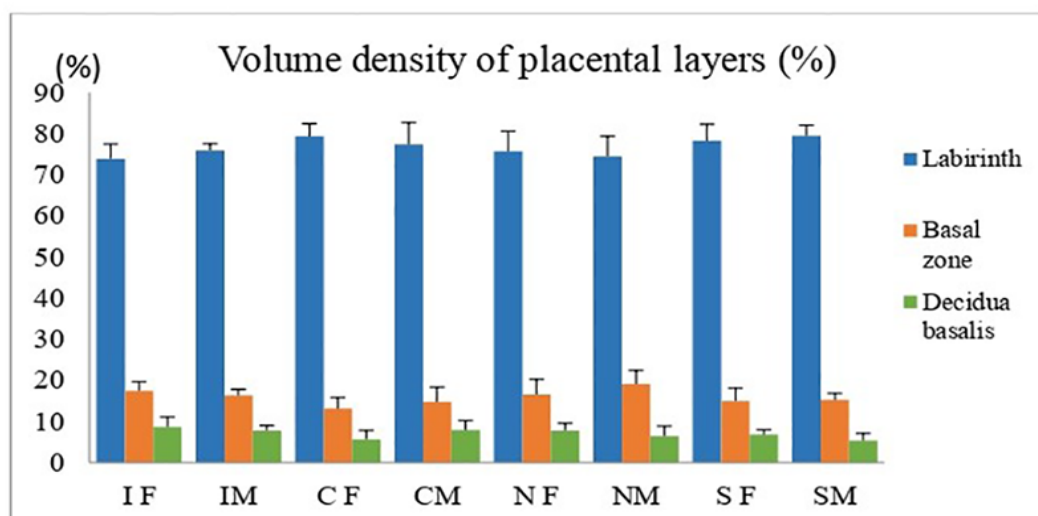
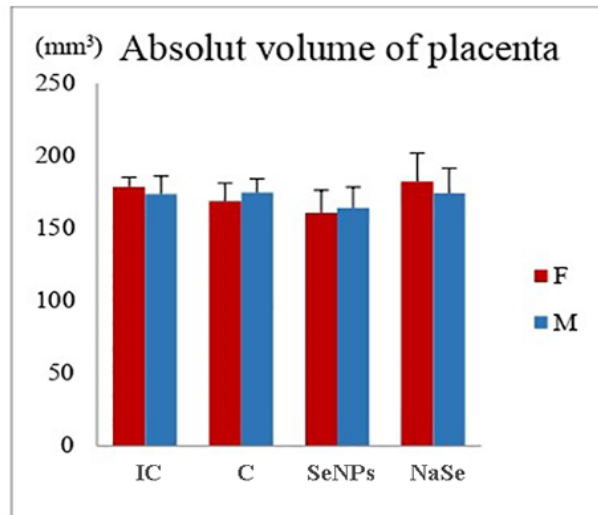
Table S1. Chemical composition of rat diet.

Chemical composition of rat diet					
General		Vitamins		Minerals	
Proteins	min 20.00%	Vit A	min 12.000 U/kg	Zinc	min 30 mg/kg
Fat	min 5.00%	Vit D3	min 2.000 U/kg	Copper	min 15.00 mg/kg
Humidity	max 11.5%	Vit E	min 30.00 mg/kg	Iron	min 60 mg/kg
Cellulose	max 5.00%	Vit B1	min 4.00 mg/kg	Manganese	min 60 mg/kg
Ashes	max 8.00%	Vit B2	min 7.00 mg/kg	Iodine	min 0.15 mg/kg
Calcium	min 0.95%	Vit B6	min 6 mg/kg	Selenium	min 0.30 mg/kg
Phosphorus	min 0.70%	Vit B12	min 0.05 mg/kg		
Lysine	min 0.60%	Folic acid	min 1.0 mg/kg		
Methionin	min 0.60%	Choline chloride	1.000.00 mg/kg	<b>Antioxidants</b>	
Tryptophan	max 0.15%	Niacin	20.00 mg/kg	E-321, E-320, E-338, E202	min 125 mg/kg
		Pantothenic acid	min 10.00 mg/kg		

**Figure S1.** Body weight of gravid females on day 21 of pregnancy. IC-Intact controls; C-Controls; SeNPs-Selenium nanoparticles; NaSe-Sodium selenite. Significantly different: <sup>A</sup>SeNPs vs IC; <sup>B</sup>SeNPs vs C, P<0.05



**Figure S2.** Absolut volume of the placenta and the volume density of placental layers in female (F) and male fetuses (M) on day 21 of pregnancy. IF-intact females; IM-Intact males; CF-Control females; CM-Control males; NF-Nanoselenium females; NM-Nanoselenium males; SF-Selenite females; SM-Selenite males.



**Figure S3.** Synthesis and physicochemical characterization of SeNPs. A – Schematic presentation of the synthesis procedure with a macroscopic image of the obtained colloidal solution and lyophilized SeNPs. B, C – FTIR spectrum and XRD pattern of freeze-dried SeNPs, respectively. D, E – FE-SEM and TEM images of SeNPs, respectively.

