

## Supplementary material

### Microarray assisted size effect study of amorphous silica nanoparticles on human bronchial epithelial cells

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**Table S1 MPPD baseline settings**

<b>MPPD baseline input categories</b>	<b>Baseline input settings</b>
Individual characteristics (airway morphometry and deposition/ clearance)	Human species; Yeh-Schum symmetric single path lung model; FRC = 2950 mL; URT volume = 50 mL; Tracheal mucous velocity = 5.5 mm/ min; fast human clearance rate = 0.02/day; medium human clearance rate = 0.001/ day; slow human clearance rate = 0.0001/day; lymph node human clearance rate = 0.00002/day
Exposure scenario: constant exposure	Acceleration of gravity = 981.0 cm/sec <sup>2</sup> ; body orientation = upright; aerosol concentration = 11 mg/m <sup>3</sup> ; breathing frequency = 20/min; VT= 700 mL; inspiratory fraction = 0.5; pause fraction = 0; breathing scenario, nasal breather; number of hours per day = 8; number of days per week = 1; number of weeks = 1; maximum postexposure days = 0
Particle properties	Density = 2.2 g/cm <sup>3</sup> ; diameter = 0.041 or 0.061 or 0.206 μm; count median diameter checked; Nanoparticles model not checked; inhalability adjustment not checked; GSD (diameter) = 1.135

Abbreviations: FRC, functional residual capacity; VT, tidal volume; GSD, geometric standard deviation