

SUPPLEMENTAL FIGURES

FIGURE 1

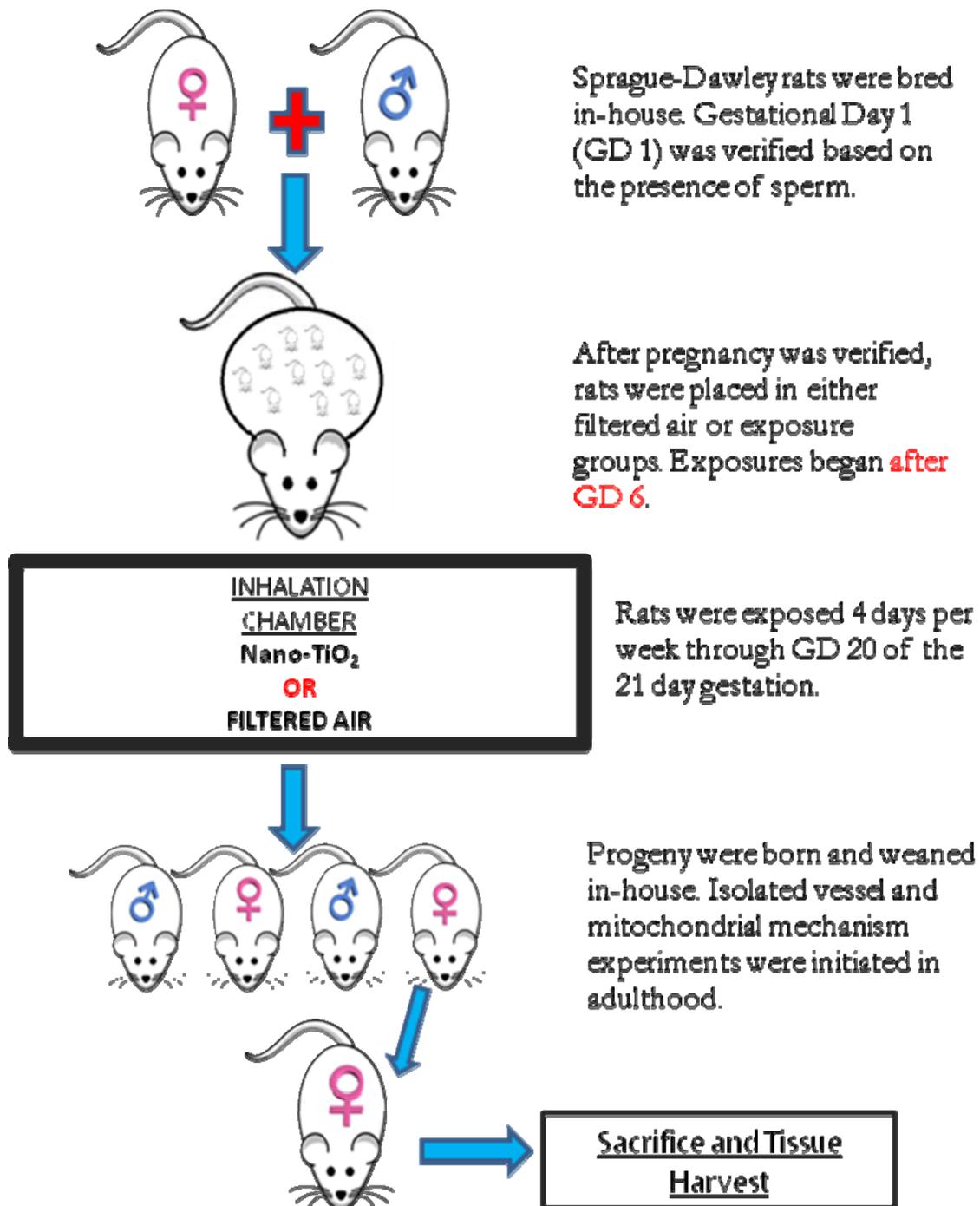


FIGURE 2

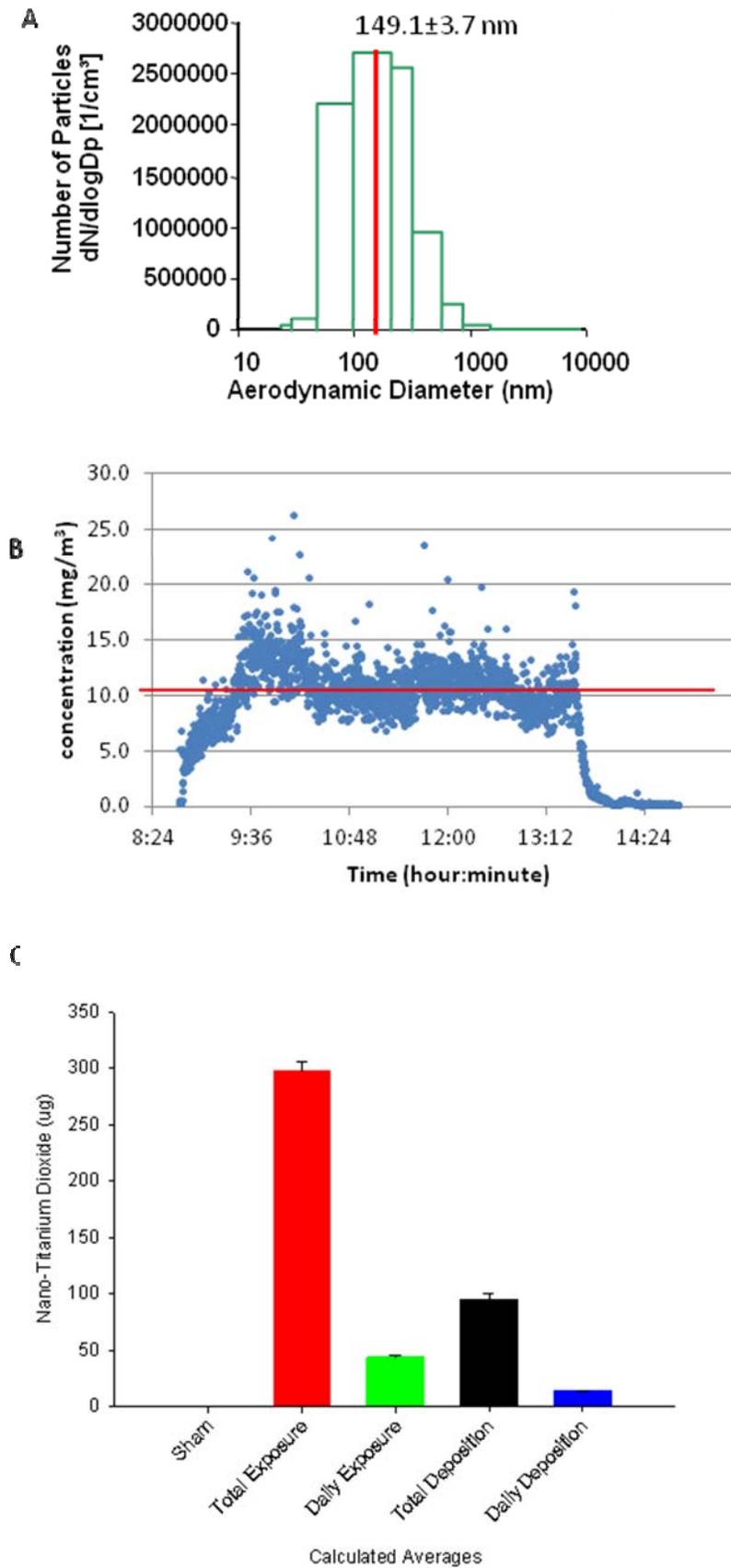


FIGURE 3

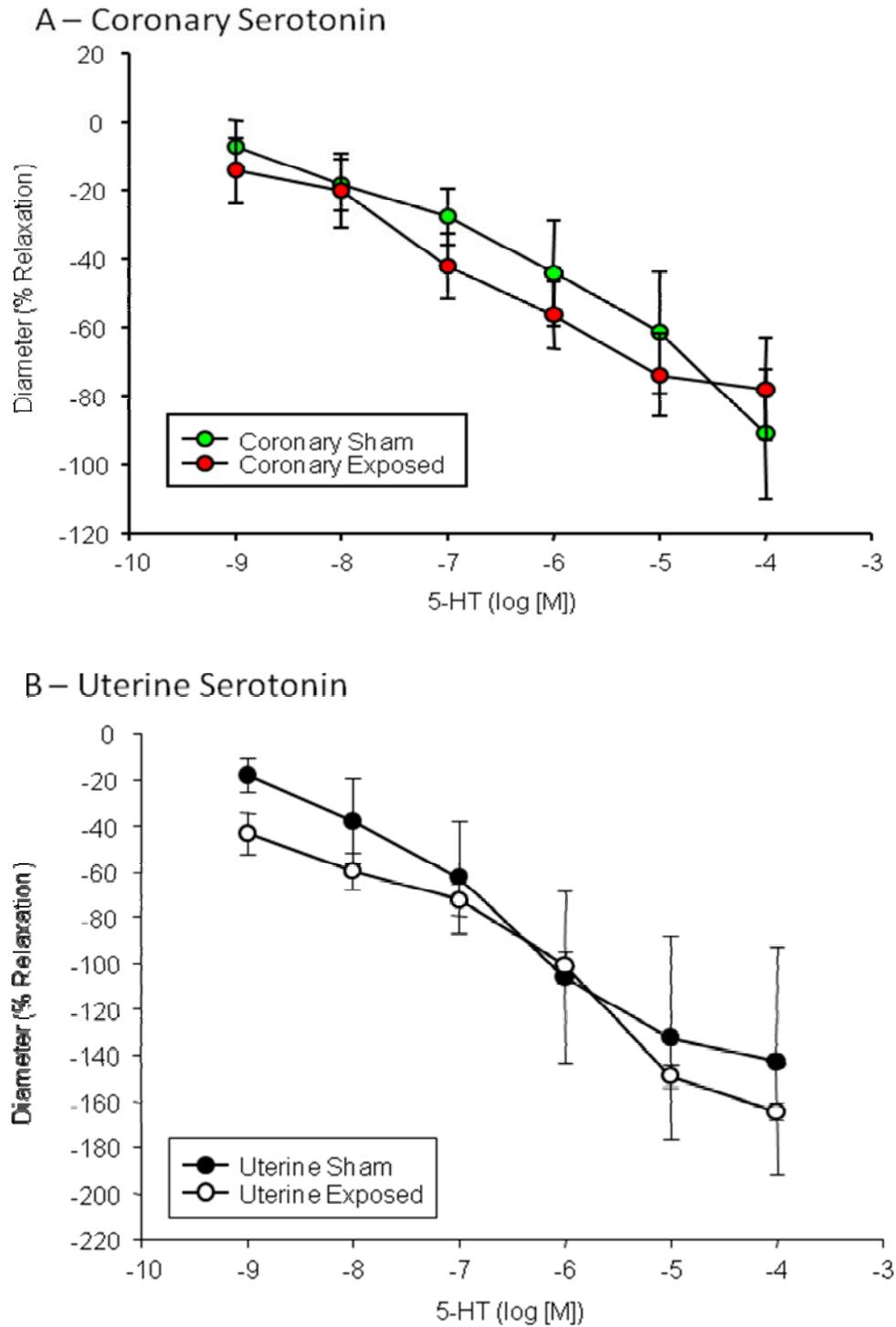
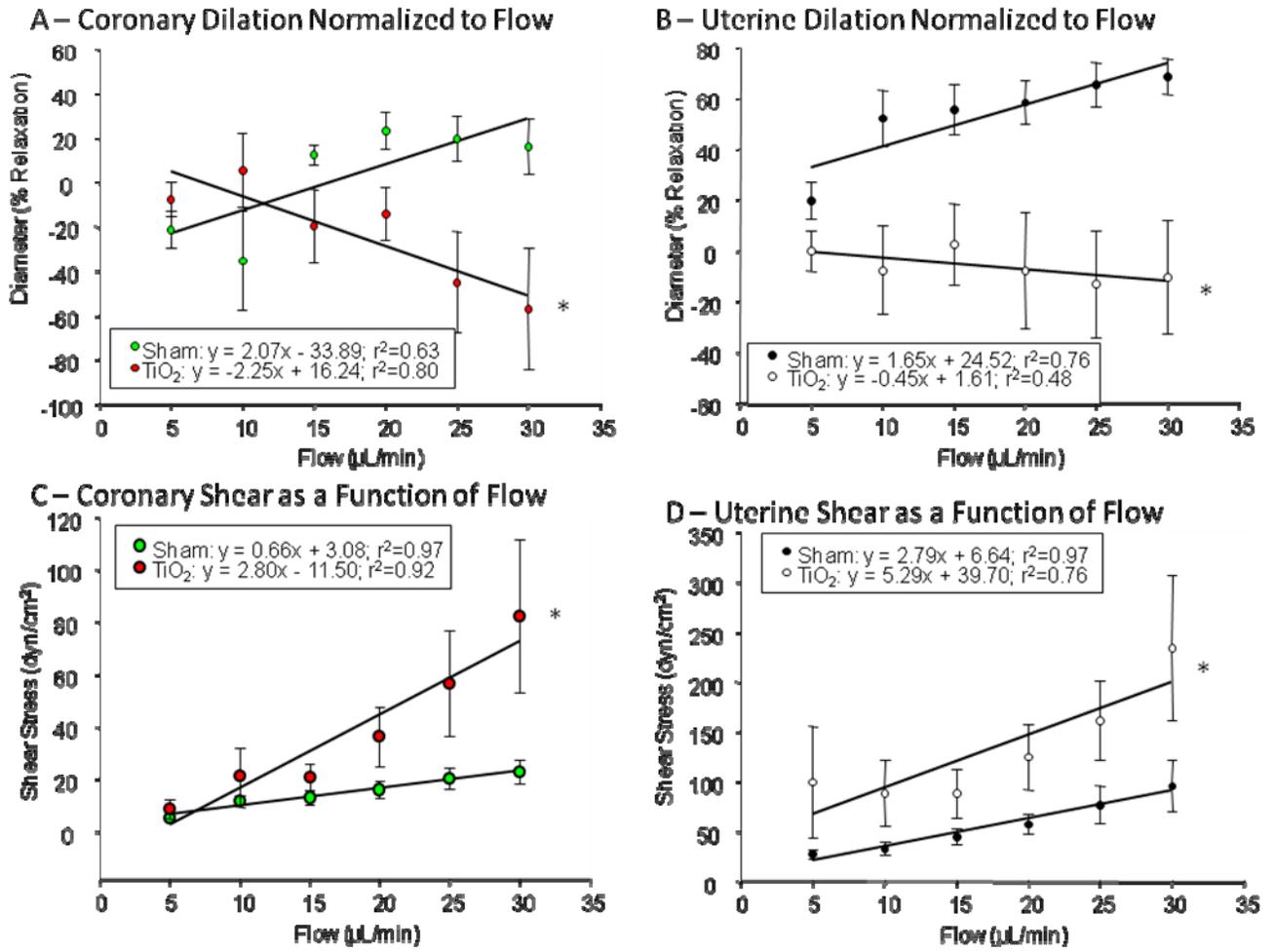


FIGURE 4



SUPPLEMENTAL FIGURE LEGENDS

Figure 1: Experimental design. Dams were bred and exposed to nano-TiO₂ during gestation.

Weights of the female progeny used in this study and littermates were recorded.

Figure 2: Nano-TiO₂ Exposure Characteristics. A) Aerosol size distribution and characterization was determined using ELPI, which characterized the mass-based aerodynamic diameter as a mean of 149.1 nm ± 3.7. B) A representative image of the daily concentration distribution over the 5-hour exposure, portraying a maintained plateau at 11.2 mg/m³ ± 0.06 for the exposure on Aug. 27, 2013. And C) Depicts the Calculated Averages for Sham (0 µg), Total Exposure (298.1 µg ± 8.3), Daily Exposure (43.8 µg ± 1.2), Total Deposition after Clearance (95.4 µg ± 4.7), and Daily Deposition after Clearance (14.0 µg ± 0.4). Values are means ± SE.

Figure 3: Microvascular contractility via a Serotonin (5-HT) dose response curve for (A) Coronary (N = 6 (sham) and 12 (prenatal exposure) rats; n = 9 (sham) and 12 (prenatal exposure) vessels) and (B) Uterine (N = 5 (sham) and 10 (prenatal exposure) rats; n = 6 (sham) and 17 (prenatal exposure) vessels) arterioles. Values are means ± SE.

Figure 4: Vascular Dilation Normalized to Increased Flow (5-30 µL/min) of the (A) Coronary (N = 7 (sham) and 8 (gestational exposure) rats; n = 11 (sham) and 15 (gestational exposure) vessels) and (B) Uterine (N = 7 (sham) and 11 (gestational exposure) rats; n = 11 (sham) and 15 (gestational exposure) vessels) arterioles and Calculated Shear Stress as a function of flow of the (C) Coronary (N = 7 (sham) and 8 (gestational exposure) rats; n = 11 (sham) and 15 (gestational exposure) vessels) and (D) Uterine (N = 7 (sham) and 11 (gestational exposure) rats; n = 11 (sham) and 11 (gestational exposure) vessels) arterioles. Values are mean ± S.E. * p ≤ 0.05 sham regression line vs. gestational exposure regression line for both the coronary and uterine arterioles. Microvascular responsiveness to alterations in flow is impaired after gestational ENM exposure in both tissue beds.