

Figure S1 (A) Optical imaging: SLN biodistribution in excised and perfused organs 4 h after *ip* injection; accumulation of nanoparticles occurs only in the liver (1), whereas in brain (2), lungs (3), kidneys (4), spleen (5), and brown adipose tissue (6) no significant signal was detected. This finding was confirmed by microscopic analyses. **(B)** Only a very weak signal (white arrows) was detected in the kidney at conventional fluorescence microscopy. G, glomerulus; T, tubules. Consistently, no nanoparticles or lipid droplets were observed at TEM in the tubular **(C)** or glomerular **(D)** cells of the kidney. The ultrastructural features of the kidney appeared well preserved: in tubular cells **(C)**, the mitochondria (M) showed their typical linear arrangement in close proximity to the basal lamellae (red asterisks); in the glomerulus **(D)**, podocytes (P) made contact with the basement membrane (black asterisk) by their pedicels (red arrows). N, nucleus. Bars 100 μm **(B)**; 500 nm **(C, D)**.

