



**Figure S9. Fluorescent and radioactive hybrid-labelled pLe<sup>X</sup>-ω1 distributes to abdominal organs, but not to the brain; pLe<sup>X</sup>-ω1 does not affect HFD-induced hypothalamic inflammation.** Mice were fed a HFD for 12 weeks, and next received a single intraperitoneal injection of 10 µg of either 1 (A) or 10 (B) MBq <sup>111</sup>In-DTPA-Cy5-pLe<sup>X</sup>-ω1. After 24 h, the biodistribution was visualized by SPECT scan of the whole mouse (A), with a head focus (*insert*), and organs were collected and weighed after sacrifice. The organ-specific <sup>111</sup>In radioactivity was counted and data expressed as mean % injected dose per g tissue ± SEM (B; n = 6 mice per group). Mice were fed a LFD (white bars) or HFD (black/green bars) for 12 weeks and fasted prior to intraperitoneal injections of either PBS (white/black bars) or 50 µg pLe<sup>X</sup>-ω1 (green bars; C). The hypothalami were collected and freeze-clamped 13h post-injection, at the peak of the inhibitory effect observed on food intake during the dark phase (see Figure 5). mRNA expression of the indicated genes (C) was determined by RT-PCR and expressed relative to the *RplP0* gene as fold change versus LFD-fed mice. Results are expressed as means ± SEM. \* P<0.05 vs HFD (n = 4-6 mice per group).