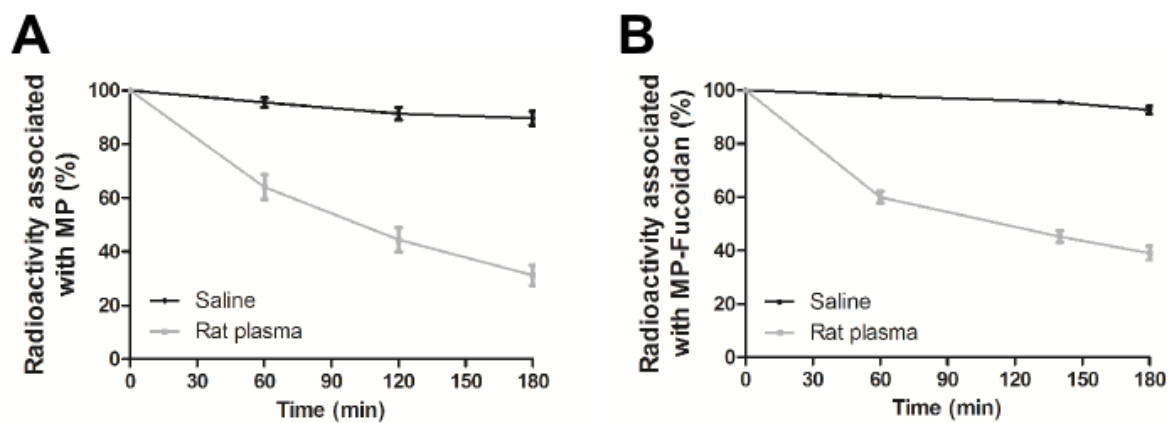
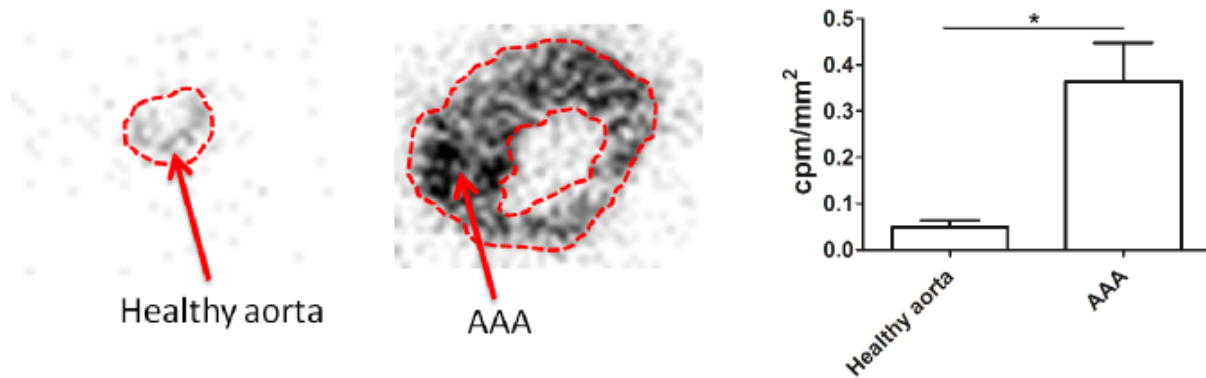


**Figure S1.** Representative surface plasmon resonance sensograms of fucoxanthin successively injected (0 M, 100 nM, 300 nM, 1  $\mu$ M, 3  $\mu$ M) with a flow rate of 30  $\mu$ L/min over SPR CM5 sensorchips on which P-Selectin was immobilized. Dextran was used as a negative control. Association ( $K_a$ ), dissociation ( $K_d$ ) and affinity ( $K_D$ ) constants of fucoxanthin for P-Selectin, calculated using a 1:1 Langmuir binding model, were  $K_a=2.5 \cdot 10^3$  M,  $K_d=3.2 \cdot 10^{-5}$  M and  $K_D=1.2 \cdot 10^{-8}$  M.



**Figure S2.** Radiolabeling stability of  $^{99m}\text{Tc}$ -MP (A) and  $^{99m}\text{Tc}$ -MP-Fucoidan (B) microparticles incubated in saline or rat plasma at room temperature, expressed as a percentage of initial radioactivity associated with microparticles as a function of time. Results are presented as mean values  $\pm$  SEM (n=3).



**Figure S3.** Autoradiography images of histological sections of abdominal aorta of healthy rats and of AAA rats 60 minutes after injection of <sup>99m</sup>Tc-MP-Fucoidan. Results were expressed in mean count per minute (cpm) per area of interest ± SEM (doted lines, mm<sup>2</sup>) (n=3 rats per group, with at least 15 sections per rat, \* p<0.05).