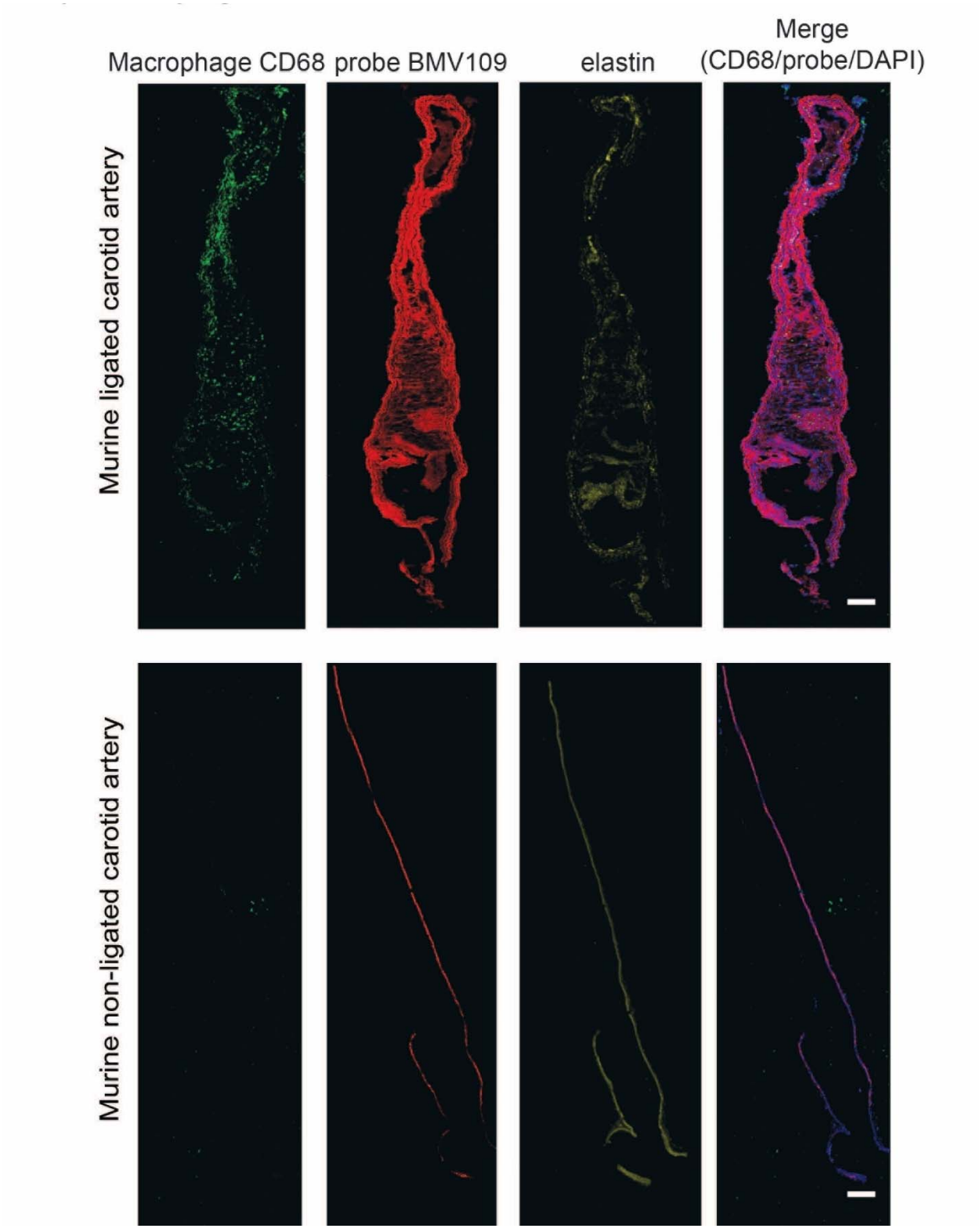
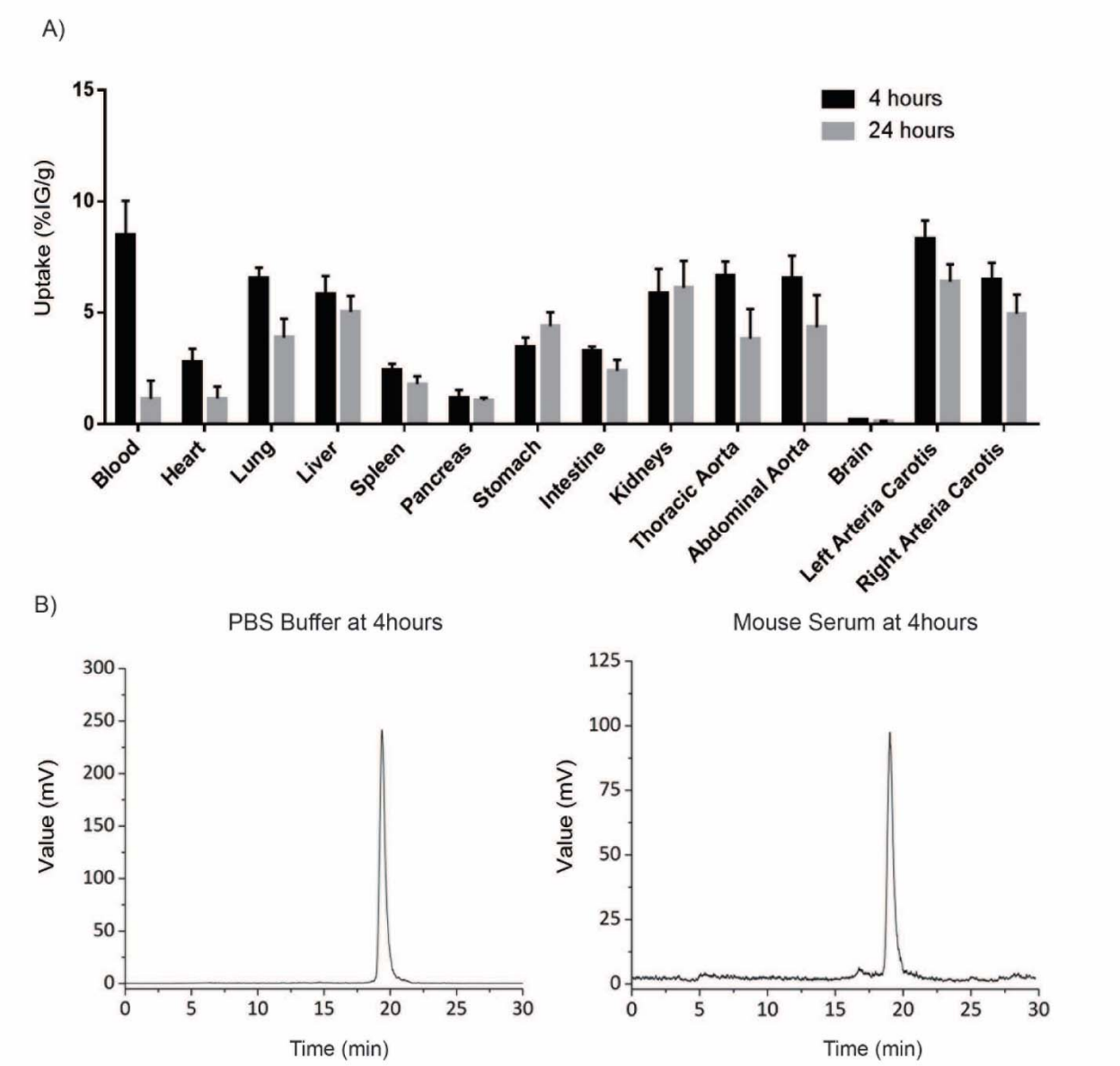
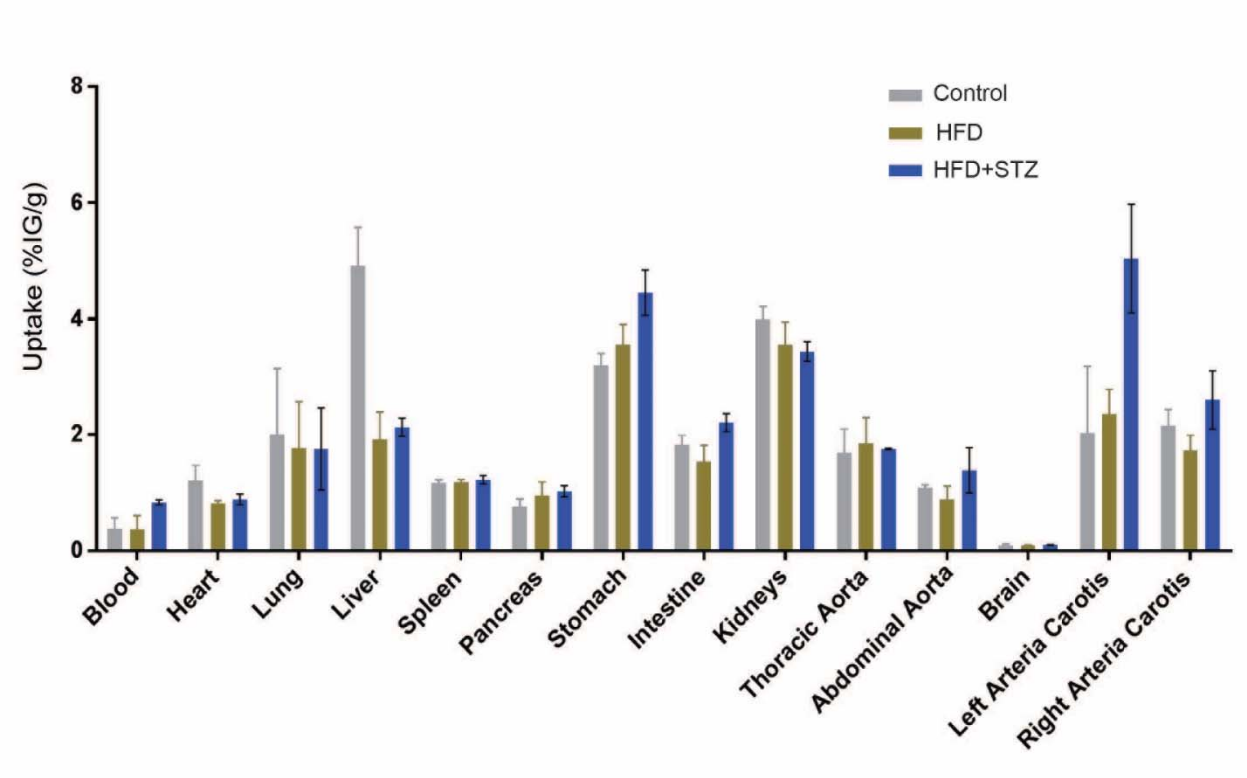


Supplemental Figure 1: Immunostaining of longitudinal carotid arteries. Longitudinal tissue sections from ligated and non-ligated carotid arteries were labeled with the optical probe BMV109

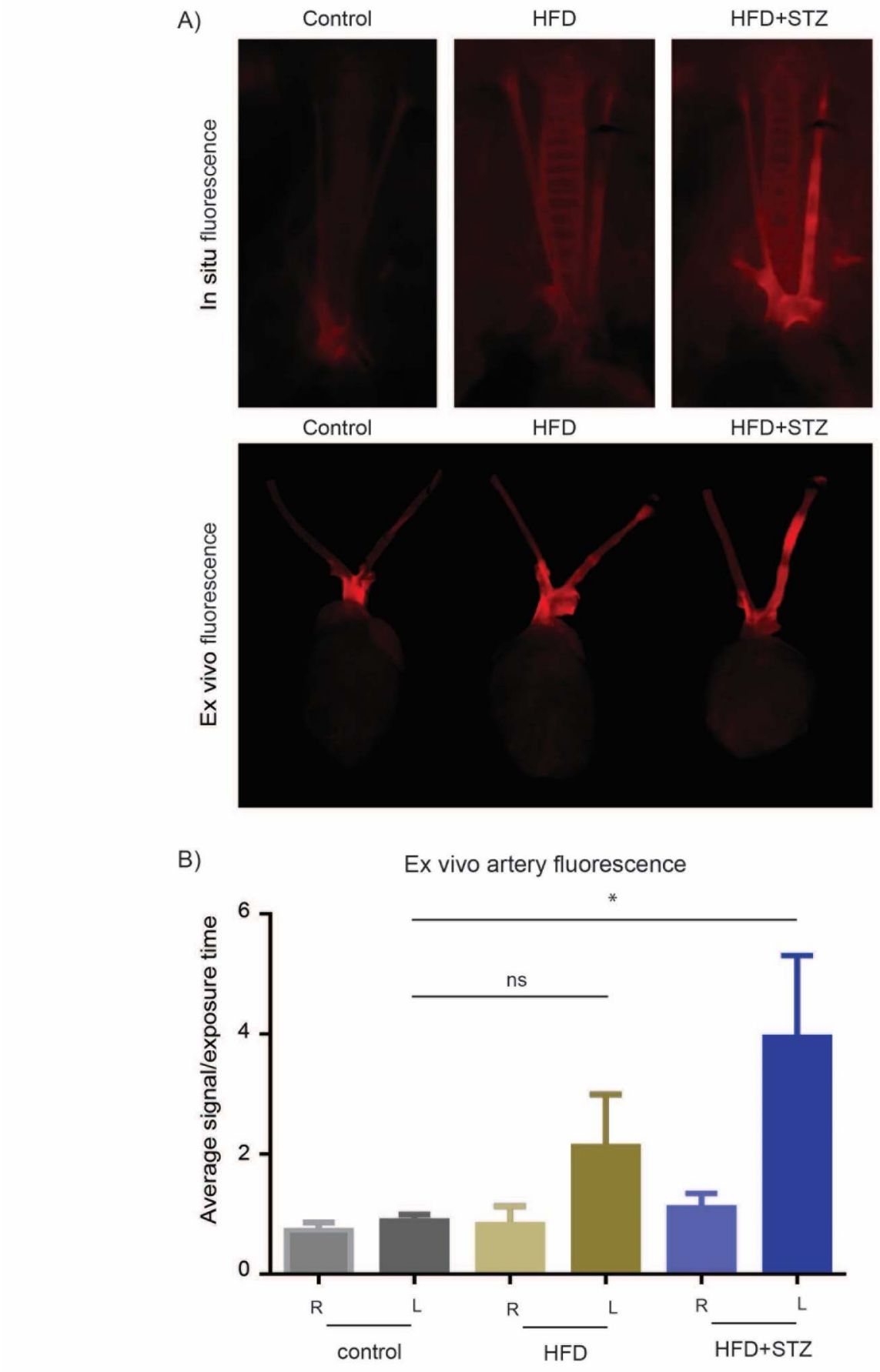
(red) and co-stained with the macrophage activation marker CD68 (green) and elastin (yellow). DAPI nuclear stain is shown in blue. Samples were tile scanned at high resolution to generate full images where scale bar represents 1 mm.



Supplemental Figure 2: *PET/CT analysis on ABP ^{64}Cu-BMV101 in murine model of atherosclerosis. A) Bio-distribution of the BMV101 probe in different organs at 4 hours and 24 hours. B)* Stability analysis of ^{64}Cu-BMV101 in PBS buffer and mouse serum at 37°C for 4 hours.



Supplemental Figure 3: *PET/CT analysis on ABP ^{64}Cu-BMV101 in HFD+STZ model of atherosclerosis compared to HFD alone and control. Bio-distribution of the BMV101 probe in different organs at 24 hours.*


A)
Control
HFD
HFD+STZ
In situ fluorescence
Control
HFD
HFD+STZ
Ex vivo fluorescence
B)
Ex vivo artery fluorescence
*
ns
Average signal/exposure time
6
4
2
0
R
L
R
L
R
L
control
HFD
HFD+STZ

Supplemental Figure 4: *In situ* and *ex vivo* representative carotid arteries from ^{64}Cu-BMV101 treated mice *from HFD+STZ model of atherosclerosis compared to HFD alone and control*. A) *In situ* and *ex vivo* fluorescence imaging of ^{64}CuBMV-101 in murine *HFD+STZ* and HFD alone carotid arteries and control healthy mouse. B) Quantitative analysis of *ex vivo* fluorescence showed significantly higher signal in left ligated carotid artery of *HFD+STZ* compared to the HFD alone and control arteries. n=3 *$p < 0.05$ by *t*-test.