

YMTHE, Volume 26

## **Supplemental Information**

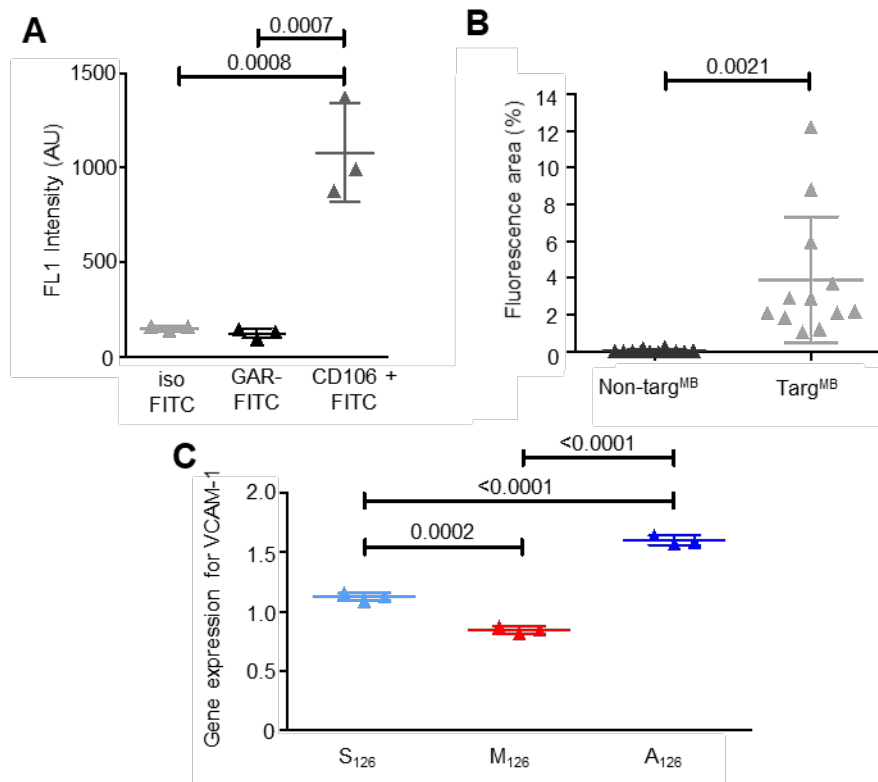
### **Dual-Targeted Theranostic Delivery of miRs**

#### **Arrests Abdominal Aortic Aneurysm Development**

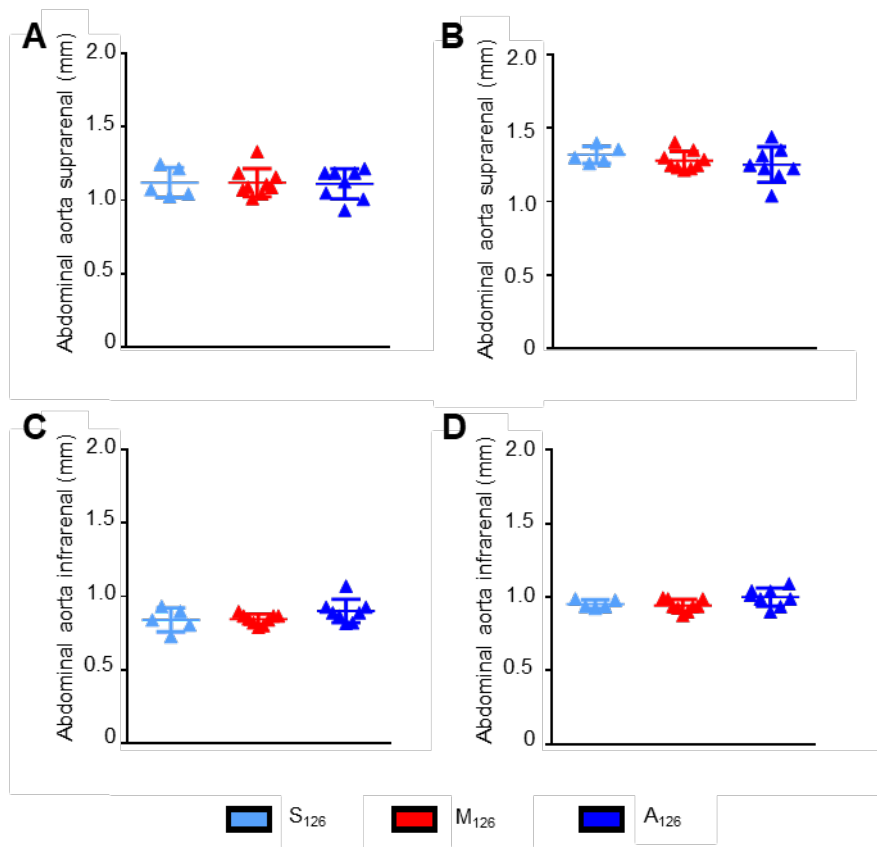
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## SUPPLEMENTAL INFORMATION

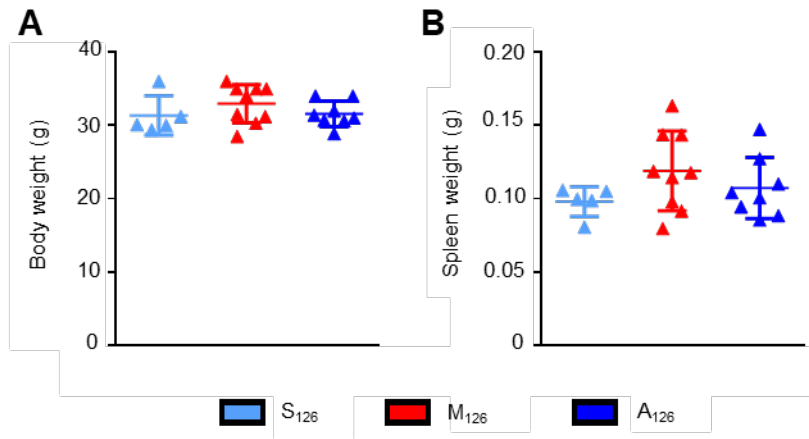
### Supplemental Figures



**Figure S1: VCAM-1 expression, binding capacity of targeted microbubbles, and effects of targeted miR microbubbles on gene expression.** a) Flow-cytometry assay demonstrating VCAM-1 expression on surface of SVEC4-10 cells. Binding of commercially available CD106 with GAR-FITC secondary antibody is observed on SVEC4-10 cells (mean  $\pm$  SD; N=3). b) Graph depicts area of fluorescence detected via microscopy for non-Targ<sup>MB</sup> and Targ<sup>MB</sup> (mean  $\pm$ SD; N=12). c) Quantitative RT-PCR demonstrates increased VCAM-1 gene expression after transfection with A126, and decreased expression with M126 as compared to S126 (mean  $\pm$  SD; N=3). Assays with two groups were analyzed using Student's t-test, and those with more than two groups using repeated measures one-way ANOVA with Bonferroni post-tests.



**Figure S2: Angiotensin II increases the suprarenal diameter of the abdominal aorta at one week post infusion.** Ultrasound imaging performed at baseline and one week post Ang-II infusion. **a)** Suprarrenal baseline, **b)** suprarenal week 1, **c)** infrarenal baseline, and **d)** infrarenal week 1 (mean  $\pm$  SD, N=5-9). These assays were analyzed one-way ANOVA with Bonferroni post-tests.



**Figure S3: Bodyweight and weight of spleen do not differ in mice of the three different treatment groups.** (Mean  $\pm$  SD, N=5-9) Analyses were performed using one-way ANOVA with Bonferroni post-test.

### **Supplemental Videos**

**Video S1: 3D reconstruction of abdominal aorta after Targ<sup>MB</sup>-S<sub>126</sub> treatment. Enlarged aorta with visible plaque build-up.**

**Video S2: 3D reconstruction of abdominal aorta after Targ<sup>MB</sup>-A<sub>126</sub> treatment. Enlarged aorta with visible plaque build-up.**

**Video S3: 3D reconstruction of abdominal aorta after Targ<sup>MB</sup>-M<sub>126</sub> treatment. No enlargement of aorta and no sign of plaque build-up.**