

SUPPLEMENTARY FIGURE LEGENDS

Supplementary Figure 1: Structures of semi-synthetic glycosaminoglycan ethers (SAGEs) (a) Alkylation of Hyaluronan combined with (b) Sulfation of Heparin leading to evolution of (c) SAGE

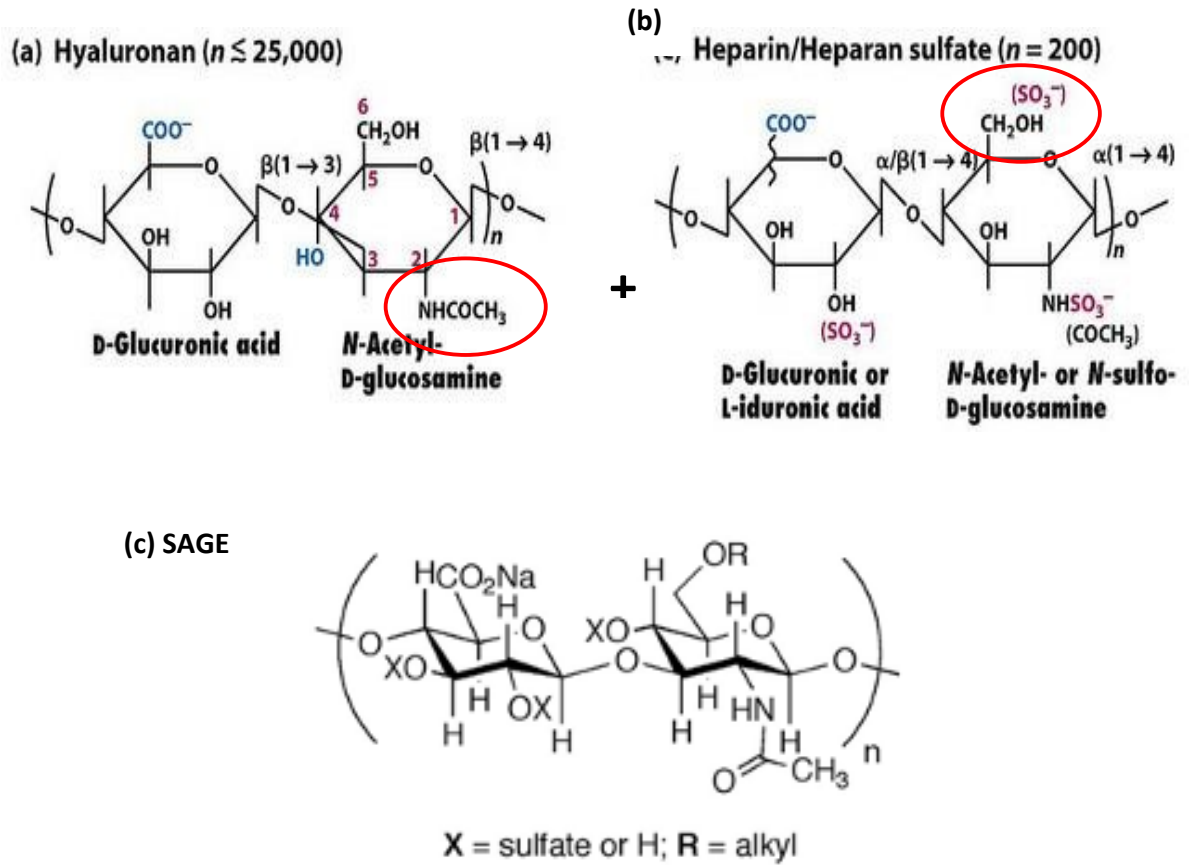
Supplementary Figure 2: Schema describing the longitudinal protocol

Supplementary Figure 3: (A) The effects of locally administered SAGE or control on Clinical attachment loss (CAL) in dogs during a 12-week protocol. Grey bar: Control group; black bar: SAGE treatment group. CAL in posterior tooth sites were monitored at 4,8 and 12 weeks. Each value represents the mean (100–144 sites/per group) \pm S.E.M. ####Indicates $p < 0.001$, values at each time period compared to baseline; ***Indicates $p < 0.001$, values compared to control at each time period. (B) Number of pockets with PD \geq 4mm were measured for baseline, 4 8, and 12 – week time period. Each value represents the mean (30–238 sites/per group) \pm S.E.M. #Indicates $p < 0.05$, values at each time period compared to its own baseline; *Indicates $p < 0.05$, values compared to control at each time period.

Supplementary Figure 4: The effects of locally administered SAGE or control on cell-signaling molecules in gingival extracts were measured by Western blot at 12 weeks. Grey bar: Control group; black bar: SAGE treatment group. Each value represents the mean (n=3 samples/group) \pm S.E.M. (A) ERK1/2 in gingival extracts. compared to control at 12 weeks. (B) p38 MAPK in gingival extracts compared to control at 12 weeks

SUPPLEMENTARY FIGURES

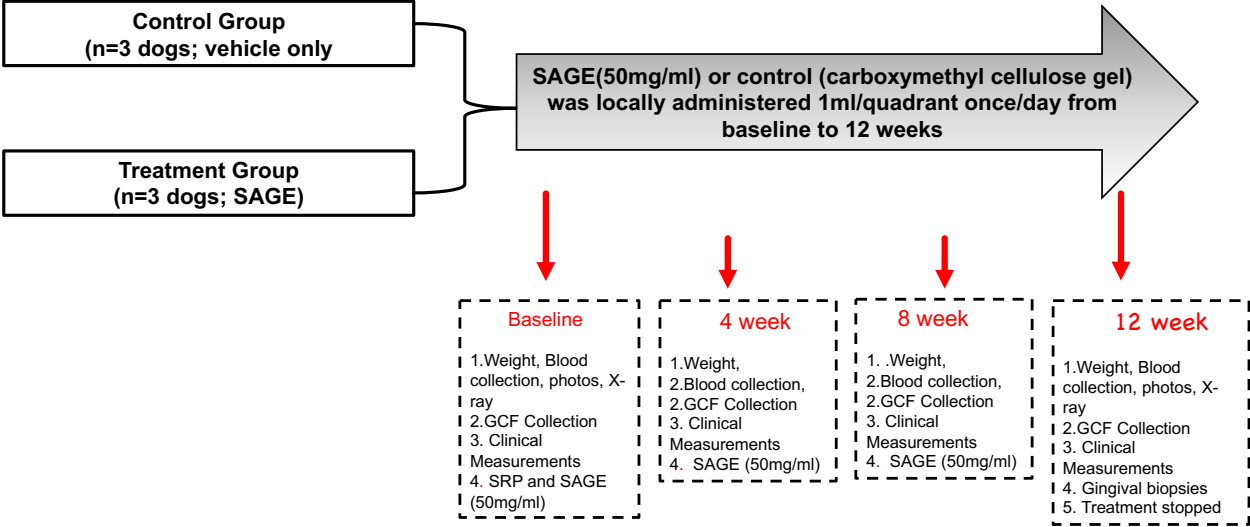
Supplementary Figure -1



(a) Chemically modified metabolically stable HA + (b) Anti-inflammatory property of Heparin = (c) SAGE

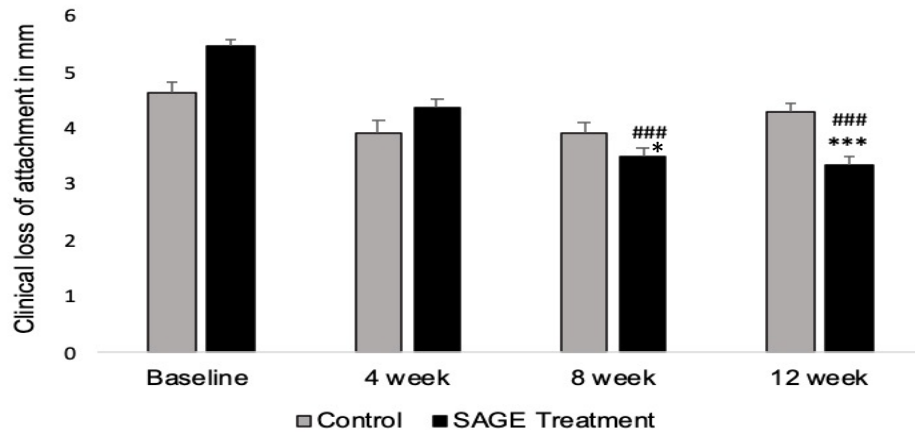
Supplementary Figure -2

Study design timeline: 4 Time Points

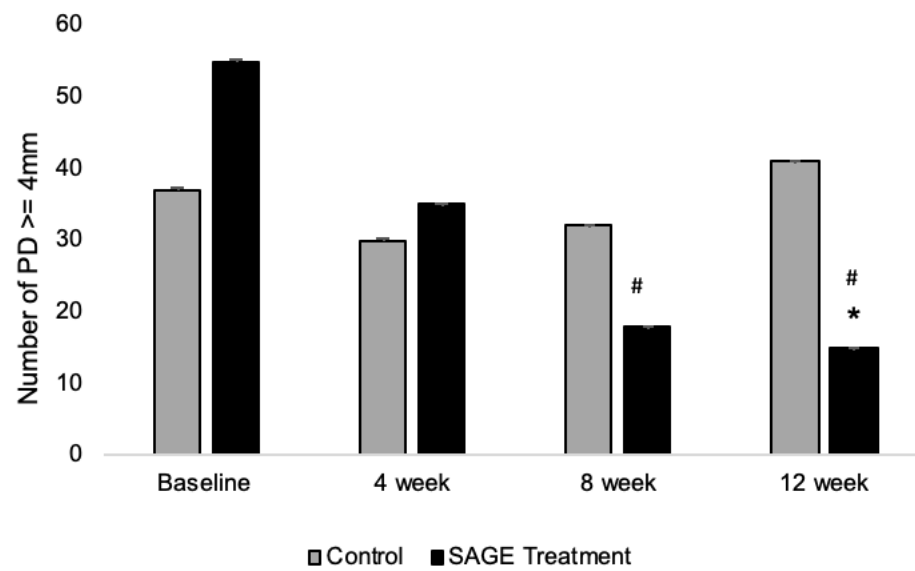


Supplementary Figure -3

A

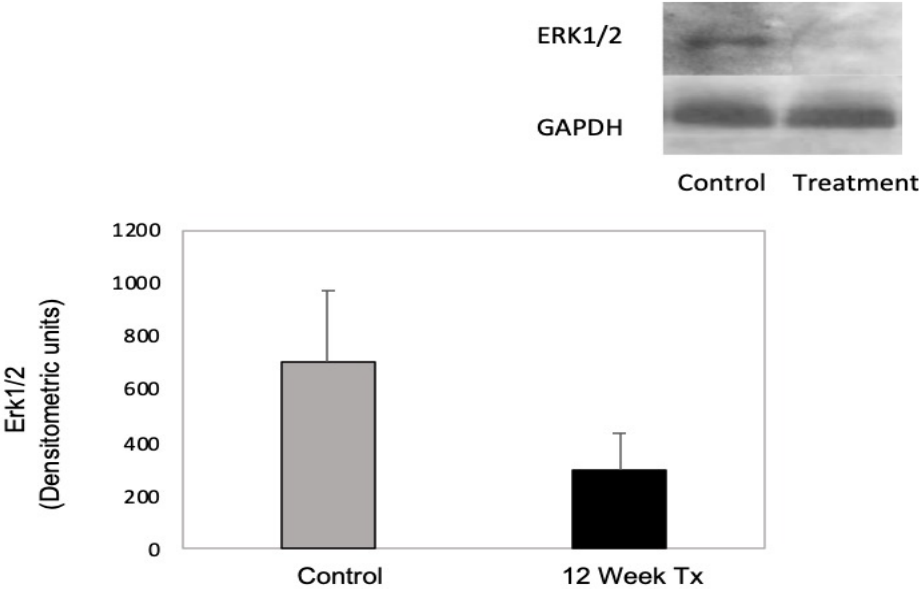


B



Supplementary Figure - 4

A



B

