



**Figure S1**

**Figure S1. Representative microscopic images of the 6-hour three-species oral biofilm on the surface of the pegs.** Post 1-hour treatment (with MMBC-3, Hyalugel®-ADO or blue®m oral gel) of the 6-hour biofilms on the surface of the pegs, the pegs were incubated in MMBC-3 for 24 hours. The pegs were further broken from the lid using pliers and stained using Styto®9. The stained pegs were visualized using the Leica TCS-SP5 confocal laser scanning microscope. To compare between the three treatments, maximum z projection of the Z stack was taken using 10X oil immersion objective lens and numerical zoom of 2: (A), (B), (C). Magnified images were captured using the 63X oil immersion objective lens, numerical zoom of 5.05: (D), (E), (F).

**Table S1: *In vitro* inhibition of Hyalugel®-ADO and blue®m oral gel against *S. gordonii* and *P. gingivalis* using an agar diffusion assay**

Bacterial species	Inhibition diameter* (Mean $\pm$ Standard Deviation, mm)		
	Hyalugel®-ADO	blue®m oral gel	P-value
<i>S. gordonii</i> (n = 9)	13.0 $\pm$ 1.6	24.9 $\pm$ 1.2	1.8 x 10 <sup>-11</sup>
<i>P. gingivalis</i> (n = 9)	22.4 $\pm$ 2.7	41.1 $\pm$ 1.7	1.2 x 10 <sup>-09</sup>

\* inhibition diameter was measured after a 48-hours treatment with each gel in anaerobic conditions on MMBC-3 agar plates inoculated with 1.5 x 10<sup>8</sup> CFU ml<sup>-1</sup> *S. gordonii* or *P. gingivalis*. Sterile wells of an inner diameter of 6 mm were made on the inoculated agar (2 on each plate) were filled with 50  $\mu$ l of each of the gels (Hyalugel®-ADO and blue®m oral gel).

**Table S2. Effect of the treatments on 24-hour three-species biofilms**

	<i>S. gordonii</i>	<i>P. gingivalis</i>	<i>T. denticola</i>	Total cells ml <sup>-1</sup>
MMBC-3 control	5,39E+08	1,87E+04	2,64E+05	5,39E+08
Hyalugel <sup>®</sup> -ADO	6,05E+07	1,79E+04	2,53E+05	6,08E+07
blue <sup>®</sup> m oral gel	7,22E+06	2,43E+04	2,18E+05	7,46E+06

Quantification of each bacterial species in the 24-hour three-species biofilm (cells ml<sup>-1</sup>) after treatment for 1 hour with either the MMBC-3 culture medium as control, Hyalugel<sup>®</sup>-ADO or blue<sup>®</sup>m oral gel, followed by 24 hours of growth in MMBC-3 medium.

