

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: The shear strength of PVA-DOPA6 film on fresh porcine buccal tissue by lap-shear test using hands.

File Name: Supplementary Movie 2

Description: The shear strength of PVA-DOPA6 film on fresh porcine buccal tissue by lap-shear tests using a universal testing machine.

File Name: Supplementary Movie 3

Description: The tensile strength of PVA-DOPA6 film on fresh porcine buccal tissue by tensile tests using a universal testing machine.

File Name: Supplementary Movie 4

Description: The interfacial toughness of PVA-DOPA6 film on fresh porcine buccal tissue by peel tests using a universal testing machine.

File Name: Supplementary Movie 5

Description: The 3D mobility of PLGA-FITC NPs in mucus layer captured by super-resolution microscopy.

File Name: Supplementary Movie 6

Description: The 3D mobility of PLGA-PEG-FITC NPs in mucus layer captured by super-resolution microscopy.

File Name: Supplementary Movie 7

Description: The 3D mobility of PLGA-PVA-FITC NPs in mucus layer captured by super-resolution microscopy.

File Name: Supplementary Movie 8

Description: The 3D mobility of PLGA-PDA-FITC NPs in mucus layer captured by super-resolution microscopy.