Peptide conjugate on multilayer graphene oxide film for the osteogenic differentiation of human Wharton's jelly-derived mesenchymal stem cells

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Supplementary Material

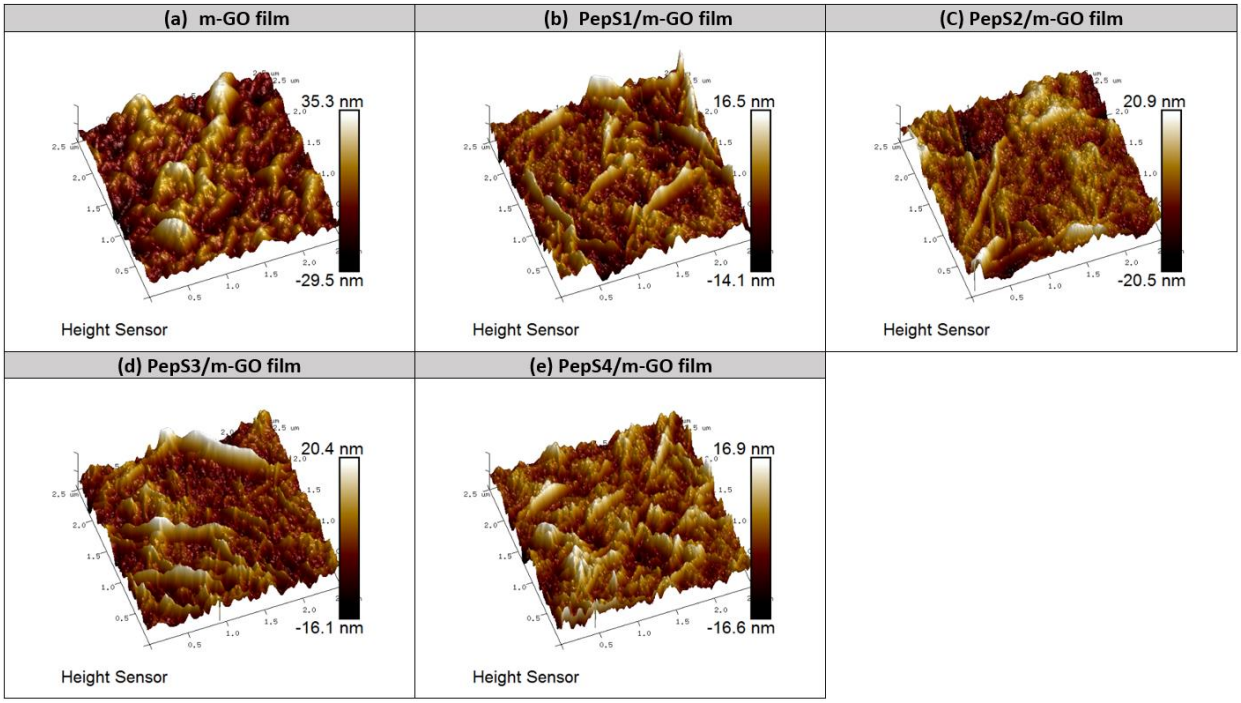

Figure S1: The 3D AFM topographic image of m-GO film (a) before and (b-e) after conjugation with peptide at 2.5 μm x 2.5 μm.

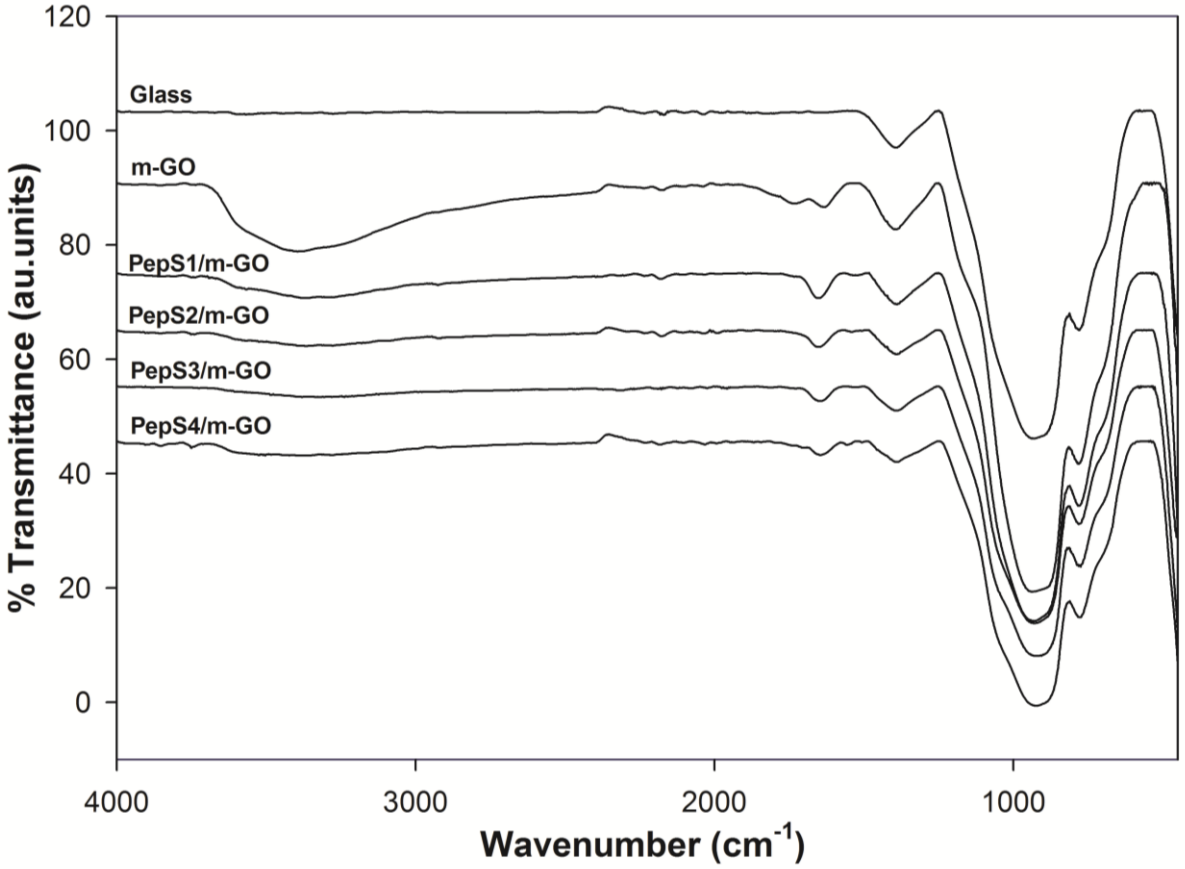

Figure S2: The raw FTIR spectra of glass, m-GO film and functionalized m-GO film with PepS1, PepS2, PepS3 and PepS4. Peaks below wavenumber 1500 cm^{-1} belong to background signal from glass substrate.

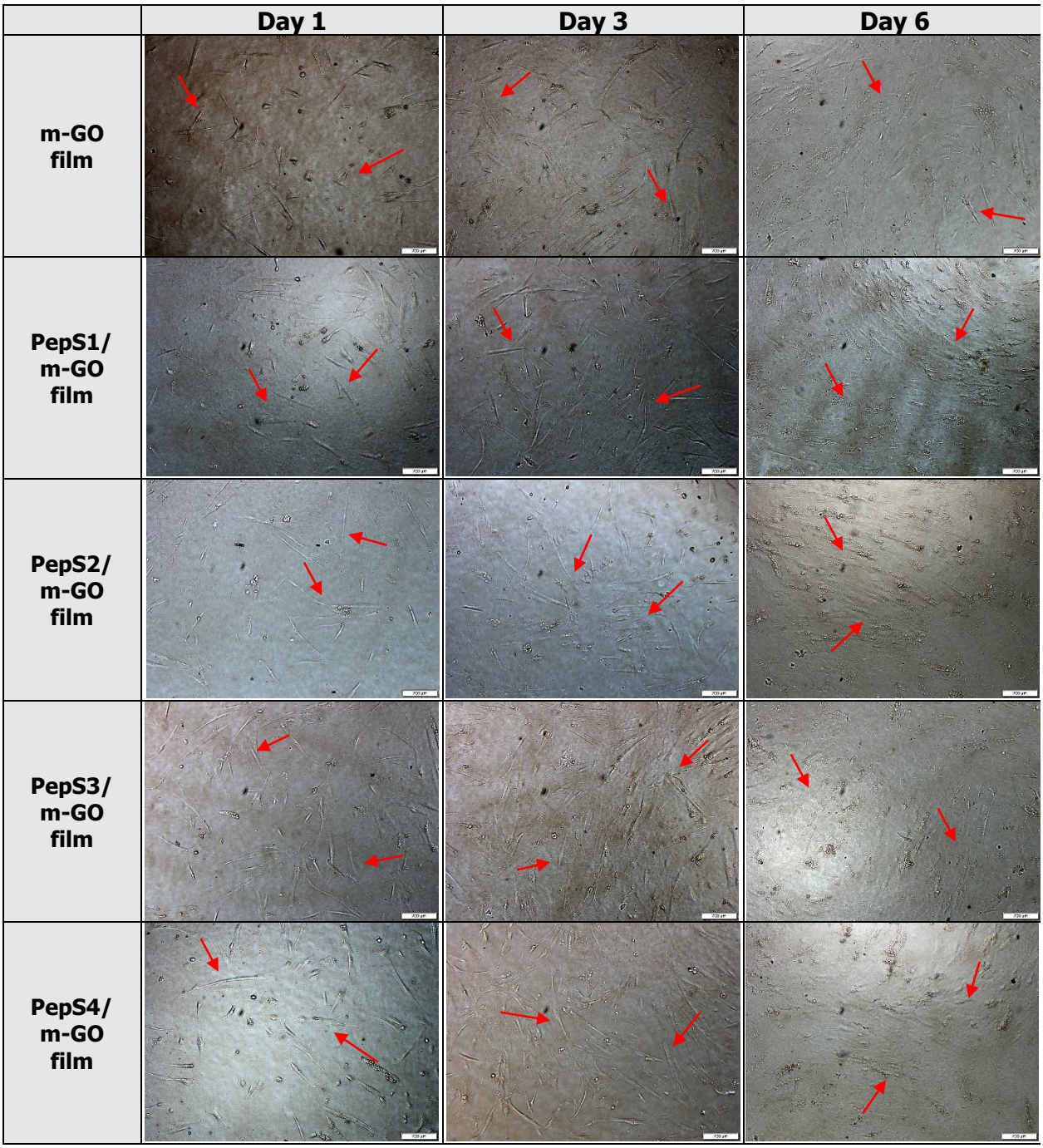

Figure S3: Morphology of cultured WJ-MSCs onto m-GO film before and after conjugate with peptide sequence (PepS1, PepS2, PepS3 and PepS4) on days 1, 3 and 6. The red arrows indicate WJ-MSCs adhered on substrates. Scale bar represents 200 μm.

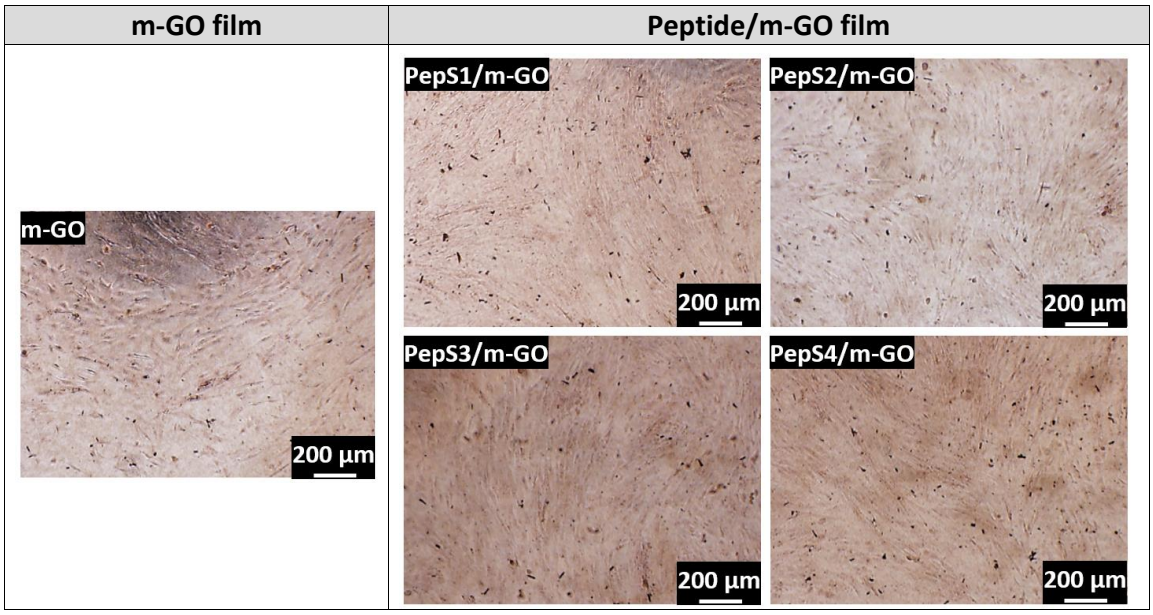

Figure S4: Alizarin red-staining of WJ-MSCs on m-GO film before and after conjugate with peptide sequence (PepS1, PepS2, PepS3 and PepS4) after 14 days of basal medium (BM) incubation. All scale bars represent 200 µm.