Supporting Information

The correlation between osteopontin adsorption and cell adhesion to mixed self-assembled monolayers of varying charges and wettability

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BSA adsorption on mixed SAMs

The adsorption kinetics of BSA (Thermo scientific, USA) on the surfaces was determined using a Plexera Kx5 V2 SPRi apparatus (SPR, Plexera® Bioscience LLC, USA). SPR was used to study the adsorption kinetics of BSA on the mixed SAMs, as shown in Figure S1.
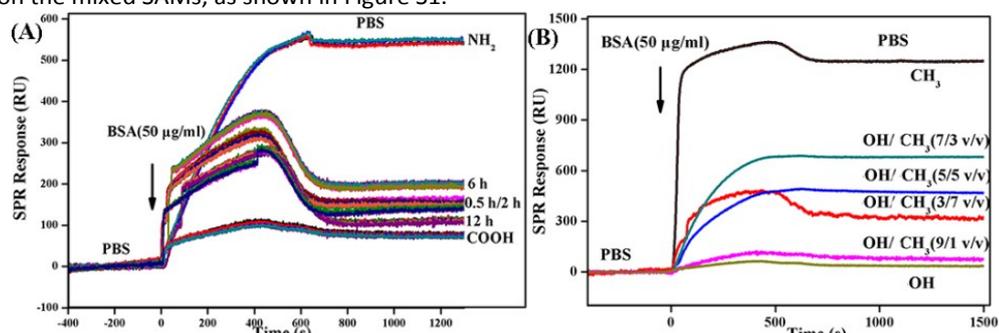

Figure S1. SPR responses for BSA adsorption on NH_2/COOH (A) and OH/CH_3 (B) mixed SAMs.

OPN adsorption on mixed SAMs

The morphologies of OPN adsorbed onto substrates were observed by atomic force microscopic (AFM) (MFP-3D-S, Asylum Research, USA) (n=2) under a contact mode in an air atmosphere.
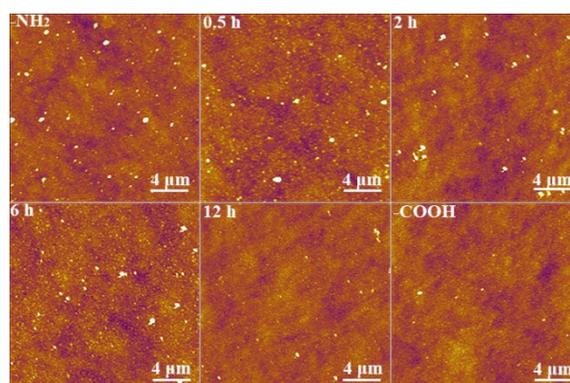
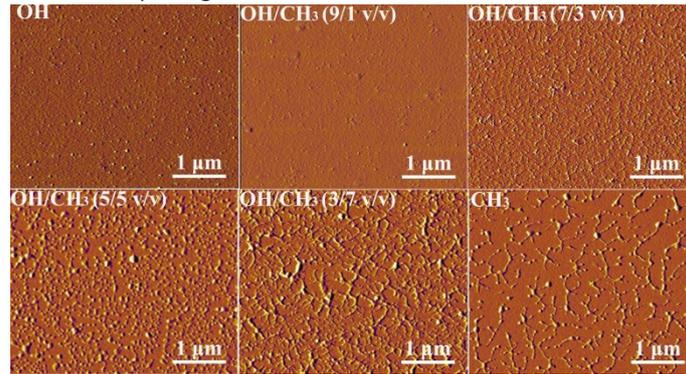Figure S2. The morphologies of OPN adsorbed onto -NH$_2$/-COOH mixed SAMs.

Figure S3. The morphologies of OPN adsorbed onto -OH/-CH$_3$ mixed SAMs.

Cell morphology on mixed SAMs in the presence of serum

The influence of OPN on cell adhesion onto SAMs with varying surface chemistry was conducted in complete culture medium. Prior to cell seeding, surfaces were coated with OPN (10 µg mL^{-1}) and blocked with non-adhesive BSA (3%).
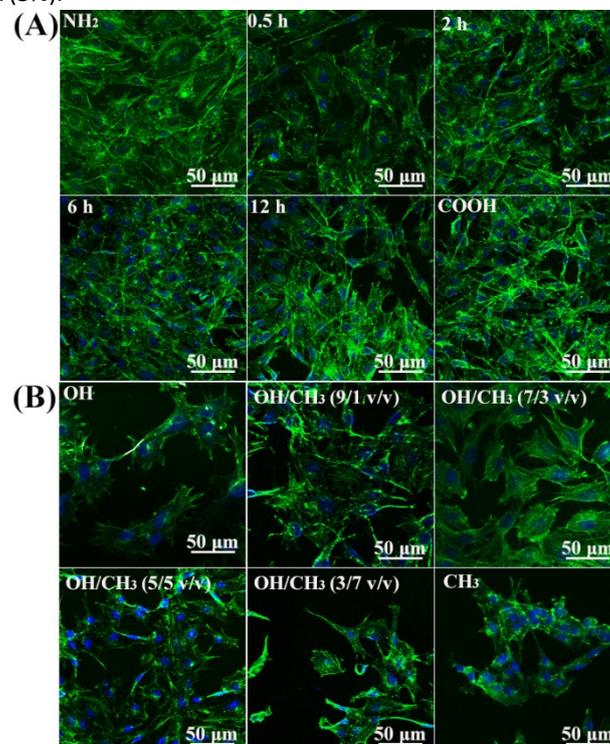

Figure S4. Morphologies of mMSCs on NH$_2$/COOH (A) and OH/CH$_3$ (B) mixed SAMs after 12 h of complete culturing. Cells were stained for F-actin and nuclei with AlexaFluor 488 phalloidin (green) and DAPI (blue), respectively.