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CORRECTION

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Correction: Designed peptide-grafted hydrogels for human pluripotent stem cell culture and differentiation

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Correction for 'Designed peptide-grafted hydrogels for human pluripotent stem cell culture and differentiation' by Ting Wang *et al.*, *J. Mater. Chem. B*, 2023, **11**, 1434–1444, https://doi.org/10.1039/D2TB02521C.

The authors regret an error in Fig. 2, 5 and 8, where incorrect data were mistakenly used in Fig. 2C(e), 5B(vii) and 8B(a). The corrected Fig. 2, 5 and 8 presented here are based on the original experimental results, and the corresponding authors have verified the integrity and reliability of the updated figures.

The authors confirm that this correction does not affect the interpretation of the results, the data analysis, or any of the conclusions in the article.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

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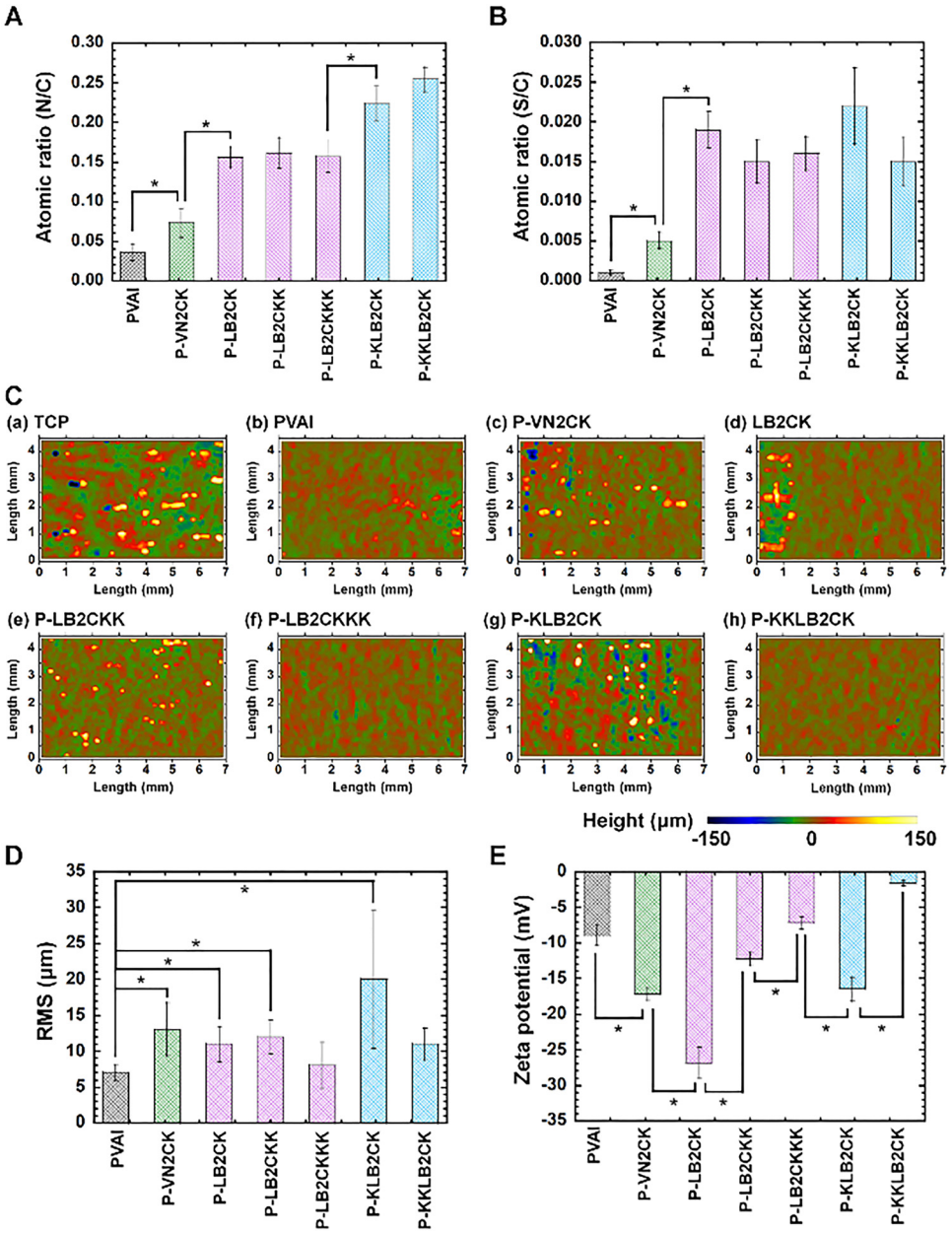

Fig. 2 Physical characterization of the surfaces of PVAI hydrogels conjugated with peptides. (A) Nitrogen to carbon (N/C) atomic ratios of the surfaces of PVAI hydrogels with and without peptide conjugation. (B) Sulfur to carbon (S/C) atomic ratios of the surfaces of PVAI hydrogels with and without peptide conjugation. (C) Visualized surface roughness of TCP dishes (a), PVAI hydrogels (b) and PVAI hydrogels conjugated with designed peptides (P-VN2CK (c), P-LB2CK (d), P-LB2CKK (e), P-LB2CKKK (f), P-KLB2CK (g), P-KKLB2CK (h)), which were analyzed using PRIMOS CR45. (D) RMS roughness of the surfaces of PVAI hydrogels with and without peptide conjugation, which was analyzed using PRIMOS CR45. (E) Zeta potential of the surfaces of PVAI hydrogels with and without peptide conjugation. *, $p < 0.05$.

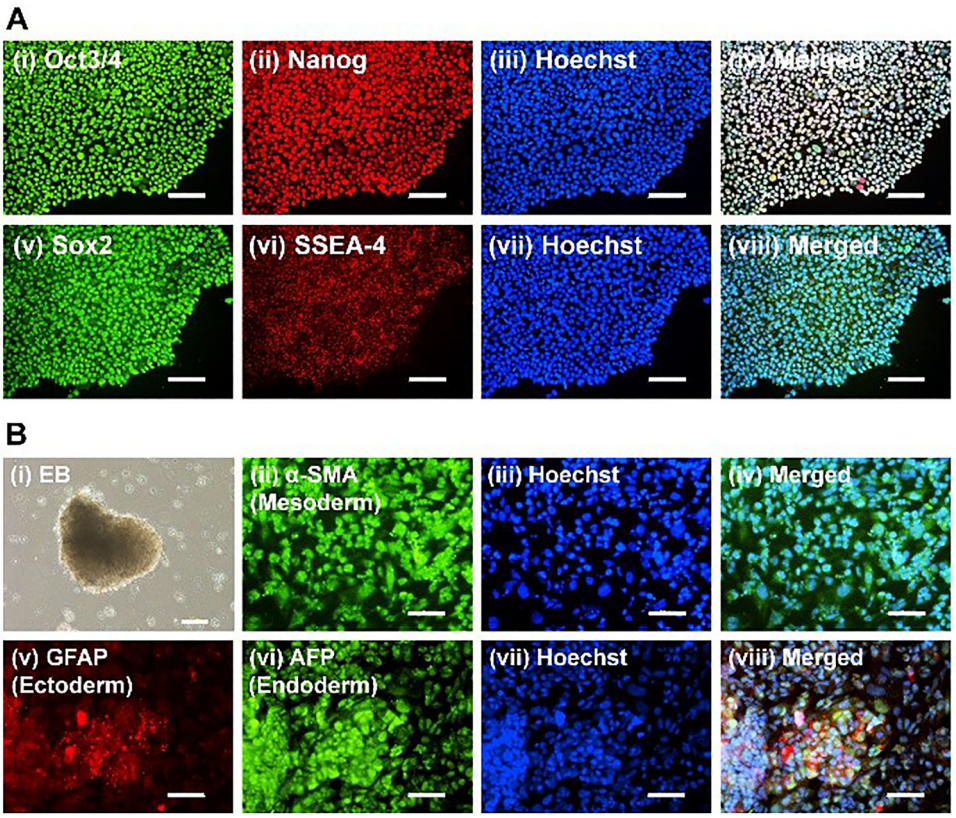

Fig. 5 Pluripotency and *in vitro* differentiation ability of hiPSCs (HPS0077) after long-term (passage ten) cultivation on P-KKLB2CK hydrogels using xeno-free cultivation protocols. (A) Pluripotency protein expression of Oct3/4 (i, green), Nanog (ii, red), Sox2 (v, green), and SSEA-4 (vi, red) in hiPSCs (HPS0077) analyzed using immunostaining with nuclear staining by Hoechst 33342 (blue, iii, vii) after hiPSC culture on P-KKLB2CK hydrogels using xeno-free cultivation protocols for ten passages. The images (iv) and (viii) were generated by merging (i)–(iii) and (v)–(vii), respectively. The scale bar is 100 μm. (B) (i) Morphology of EB cells differentiated from hiPSCs (HPS0077) after hiPSC culture on P-KKLB2CK hydrogels using xeno-free cultivation protocols for ten passages. Expression of a mesodermal marker protein (ii, α-SMA, green), an ectodermal marker protein (v, GFAP, red) and an endodermal marker protein (vi, AFP, green) from EB cells evaluated using immunostaining with nuclear staining from Hoechst 33342 (iii, vii, blue) after hiPSC culture on P-KKLB2CK hydrogels using xeno-free cultivation protocols for ten passages. The photos (iv) and (viii) were generated by merging (ii)–(iii) and (v)–(vii), respectively. The scale bar is 100 μm.

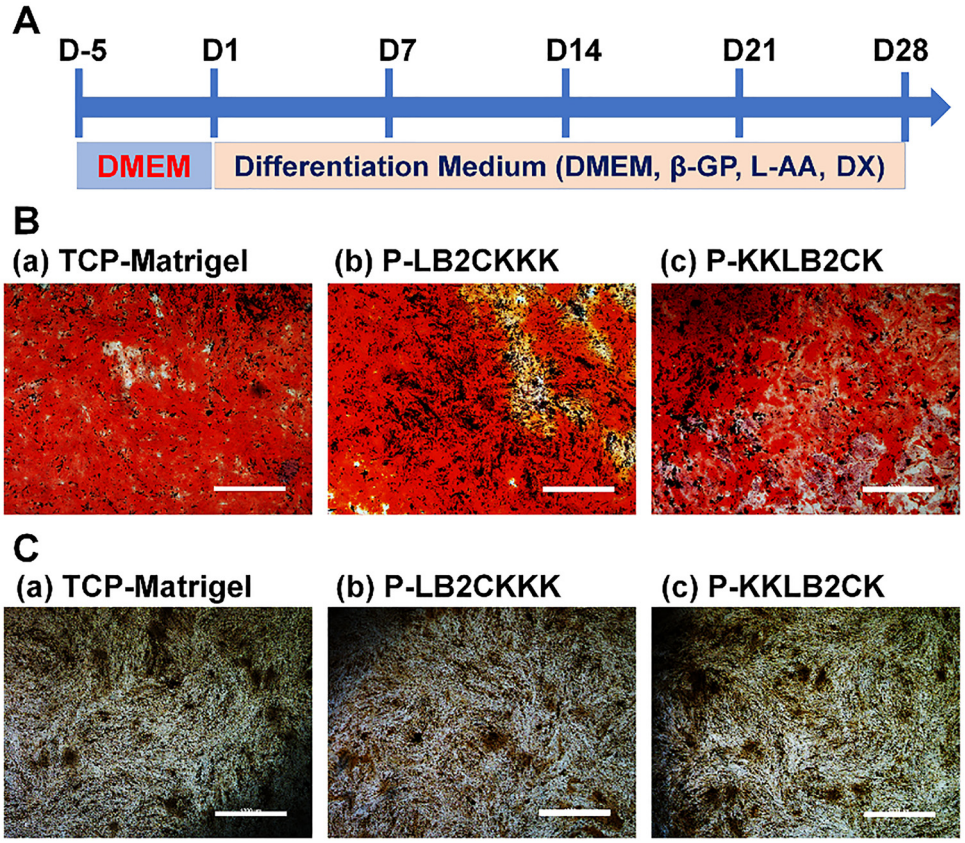

Fig. 8 Osteogenic differentiation of hiPSC (HPS0077)-derived MSCs after long-term (passage ten) cultivation on PVAl hydrogels conjugated with designed peptides (P-LB2CKKK and P-KKLB2CK) under xeno-free culture conditions. (A) Timeline of the protocol of hiPSC-derived MSC induction into osteoblasts utilized in this work. (B) Micrograph of alizarin red S (calcium deposition)-stained cells cultivated on TCP-Matrigel plates (a), P-LB2CKKK hydrogels (b) and P-KKLB2CK hydrogels (c) after 28 days of osteogenic induction, where the hiPSCs were cultivated on PVAl hydrogels conjugated with designed peptides (P-LB2CKKK and P-KKLB2CK) for 10 passages in advance, and subsequently were differentiated into MSCs followed by osteogenic induction. The scale bar is 1000 μm. (C) Micrograph of von Kossa (calcium phosphate deposition)-stained cells cultivated on TCP-Matrigel plates (a), P-LB2CKKK hydrogels (b) and P-KKLB2CK hydrogels (c) after 28 days of osteogenic induction, where the hiPSCs were cultivated on PVAl hydrogels conjugated with designed peptides (P-LB2CKKK and P-KKLB2CK) for 10 passages in advance, and subsequently were differentiated into MSCs followed by osteogenic induction. The scale bar is 1000 μm.