

**SUPPLEMENTARY FIG. S6.** Silver staining after pepsin digest of collagen secreted by hMSC in media and cell layers after (A) 2 days and (B) 7 days of crowding: No crowding; Ficoll mixture 9% v/v (i.e., Ficoll mixture of 70 and 400 kDa at a combined FVO of 9% v/v), PVP 360 kDa at an FVO of 54% v/v, and PVP 40 kDa at an FVO of 18% v/v. Accumulation of high amounts of PVP 360 kDa and PVP 40 kDa in the media was observed to impair migration of proteins in the gel.