Macrophage-derived osteopontin is fragmented by MMP-9 to hinder angiogenesis in the post-myocardial infarction left ventricle - DTU Orbit (14/08/2019)

**Macrophage-derived osteopontin is fragmented by MMP-9 to hinder angiogenesis in the post-myocardial infarction left ventricle**

Extracellular matrix (ECM) turnover is a key event during remodeling of the left ventricle (LV) following myocardial infarction (MI). Turnover includes ECM degradation of existing ECM to remove necrotic myocytes and synthesis to produce new ECM to form the infarct scar. Matrix metalloproteinases (MMPs) are elevated post-MI, and MMP-9 has a strong link to post-MI LV dysfunction. The ECM protein osteopontin (OPN) increases post-MI, and we previously identified by mass spectrometry a novel MMP-9 cleavage site of OPN between amino acids 151 and 152. In vitro, peptides both upstream and downstream of the cleavage site increased cardiac fibroblast migration without affecting proliferation.

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