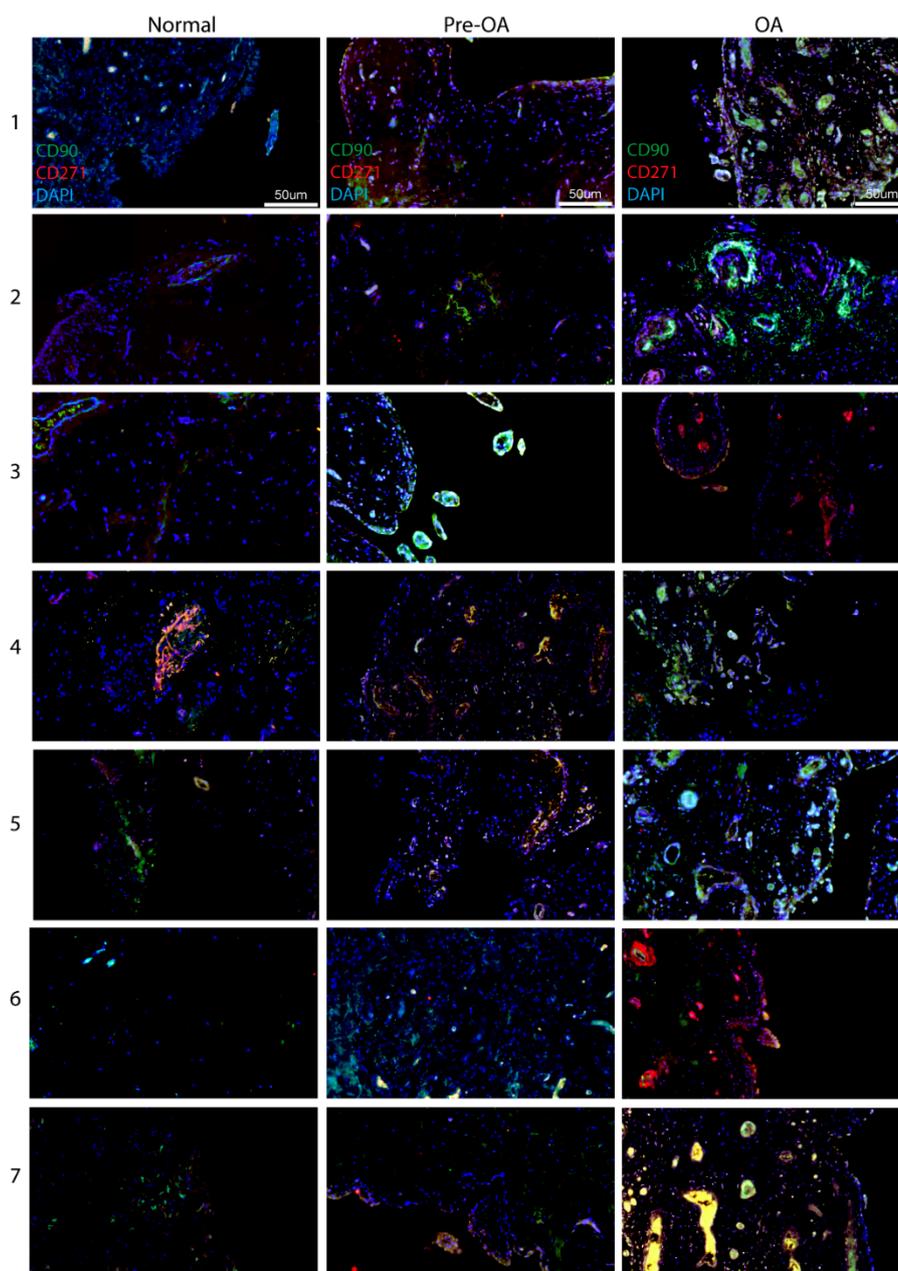
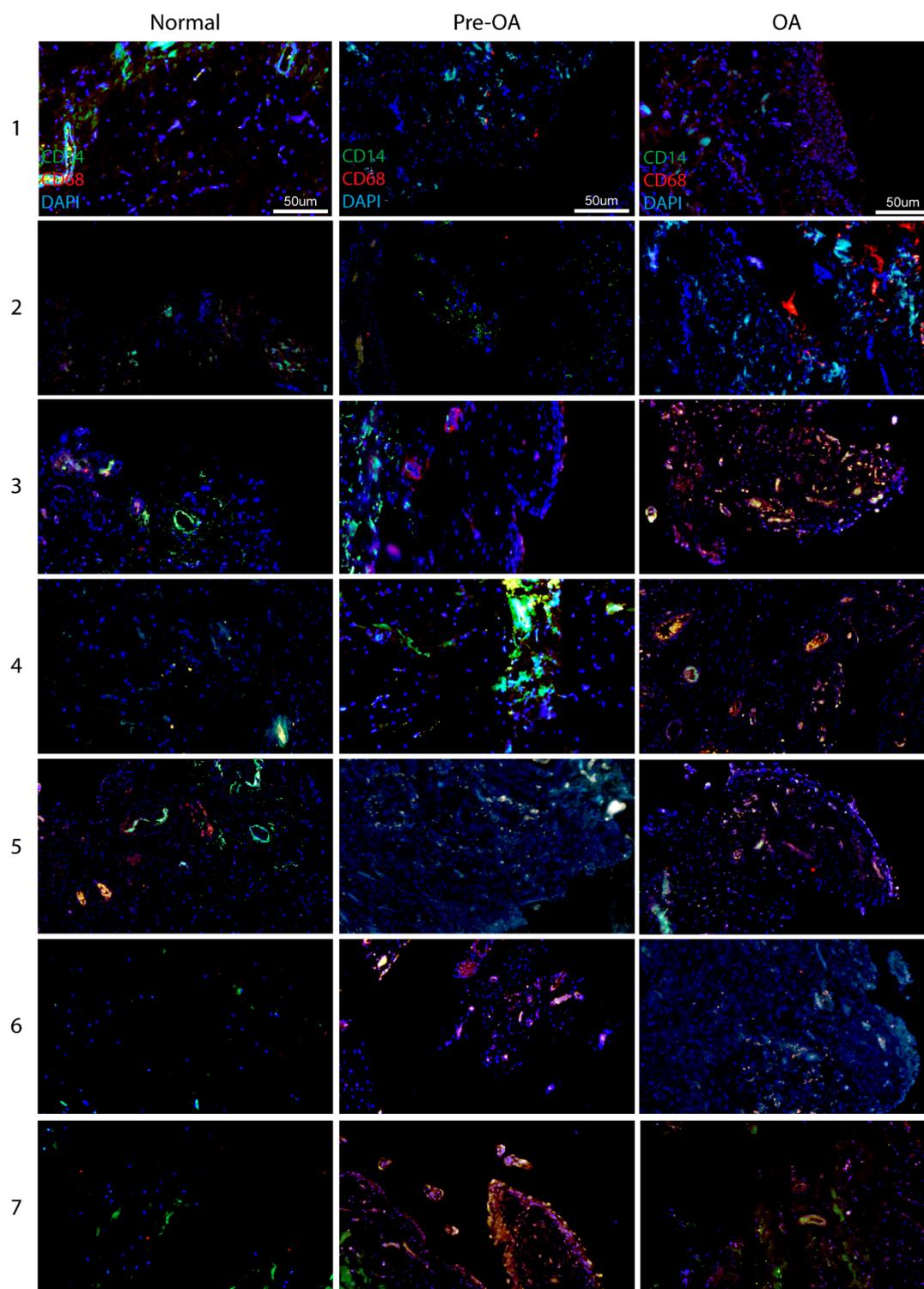


# Supplementary Materials: Enumeration and Localization of Mesenchymal Progenitor Cells and Macrophages in Synovium from Normal Individuals and Patients with Pre-Osteoarthritis or Clinically Diagnosed Osteoarthritis

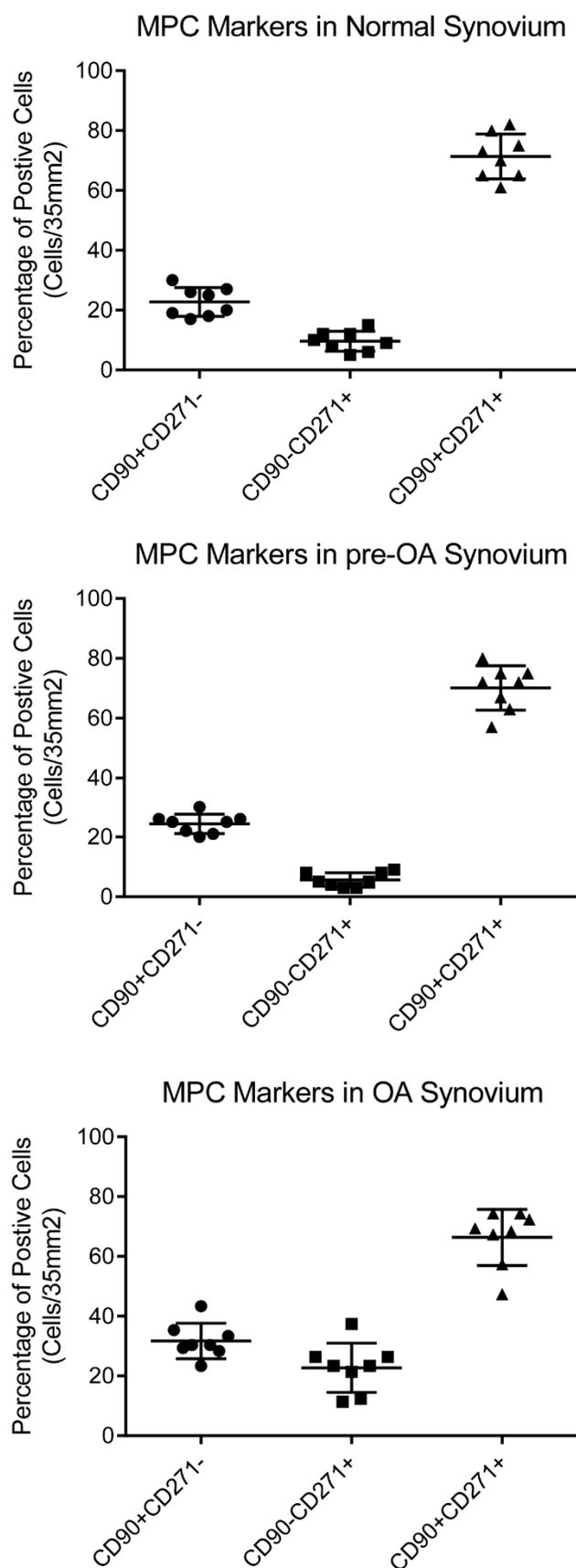
Kate O'Brien, Pankaj Tailor, Catherine Leonard, Lisa M DiFrancesco, David A Hart, John R Matyas, Cyril B Frank and Roman J Krawetz



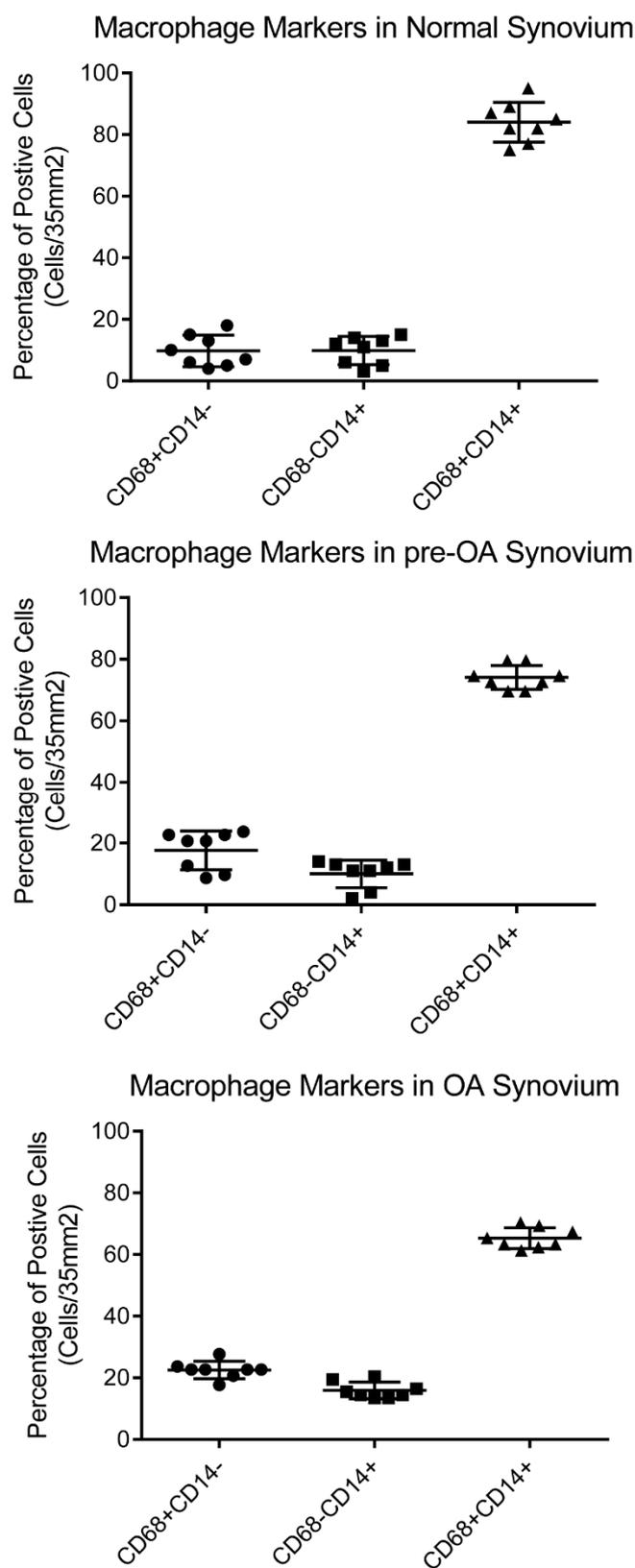
**Figure S1.** Markers of mesenchymal progenitor cells (MPCs) (CD90, CD271) in Normal, Pre-osteoarthritis (OA) and OA synovial tissue. Representative images from the remaining seven individuals from the normal, pre-OA and OA cohorts stained with CD90 (green), CD271 (red) and 4',6-diamidino-2-phenylindole (DAPI) (blue). Scale bar represents 50µm.



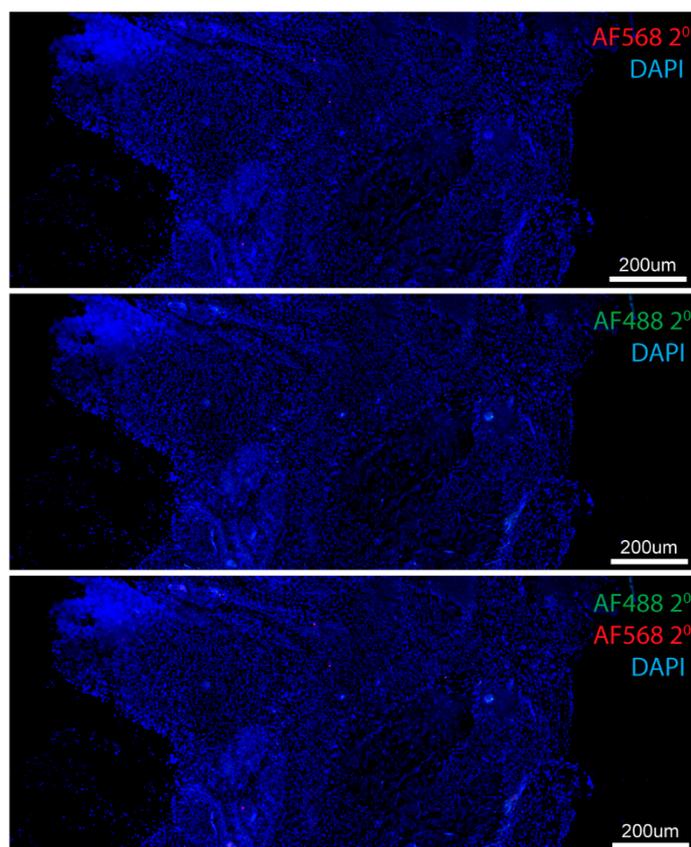
**Figure S2.** Markers of macrophages (CD14, CD68) in Normal, Pre-OA and OA synovial tissue. Representative images from the remaining seven individuals from the normal, pre-OA and OA cohorts stained with CD14 (green), CD68 (red) and DAPI (blue). Scale bar represents 50µm.



**Figure S3.** Enumeration of single and double positive cells expressing MPC markers. CD90<sup>+</sup>, CD271<sup>+</sup> and CD90<sup>+</sup> CD271<sup>+</sup> cells were quantified in normal, pre-OA and OA synovium. In all cohorts examined, the majority of cells expressing both markers (CD90 and CD271).



**Figure S4.** Enumeration of single and double positive cells expressing macrophage markers. CD14<sup>+</sup>, CD68<sup>+</sup> and CD14<sup>+</sup> CD68<sup>+</sup> cells were quantified in normal, pre-OA and OA synovium. In all cohorts examined the majority of cells expressed both markers (CD14 and CD68).



**Figure S5.** Isotype Controls. To control for non-specific binding of the primary antibody, isotype specific controls conjugated to each fluorophore were examined on synovial tissue sections. Limited/no reactivity was observed.