Appendix A

Figure 1. Demonstrating sensitivity of T1rho to proteoglycan content and change in the hip joint without the need of a contrast agent.

Figure 2. Spearman rank correlation coefficient (rho: -0.60, p<0.001*)
Figure 3. Cartilage Mapping

**Zone width:**
2-3 MRI slices
6-9 mm

**Zone height:**
Full cartilage thickness
(Femur + Acetabulum)
5-6 MRI pixel, each 0.5 x 0.5 mm²
2.5-3 mm

**Number of pixels in zone:**
~ 500-900
(depending on cartilage thickness and if 2 or 3 slices)