

**SUPPLEMENTARY MATERIAL**

**Table S1. Detailed description of the sample collections used in this study. N= Sample size; Std Dev = Standard deviation**

| Tissue    | Study  | Set           | N   | Age Mean | Age Range | Std.Dev. | Woman % |
|-----------|--|---------------|-----|----------|-----------|----------|---------|
| Blood     | Current study  | Controls      | 182 | 60.70    | 45 to 88  | 11.51    | 46.70   |
|           |  | Hand OA       | 206 | 60.58    | 32 to 88  | 10.06    | 88.35   |
|           |  | Knee OA       | 229 | 67.66    | 55 to 78  | 5.63     | 82.09   |
|           |  | Hip OA        | 273 | 68.38    | 55 to 84  | 5.50     | 59.70   |
| Cartilage | Fernández-Tajes J et al, Ann Rheum Dis 2014; 73:668        | Knee Controls | 18  | 59.28    | 40 to 79  | 10.83    | 33.33   |
|           |  | Knee OA       | 29  | 68.52    | 54 to 79  | 7.25     | 69.00   |
|           | Aref-Eshghi E et al, BMC Musculoskelet Disord 2015; 16:287 | Knee OA       | 6   | 65.35    | 54 to 78  | 10.63    | 100.00  |
|           |  | Hip Controls  | 10  | 79.37    | 63 to 95  | 11.38    | 90.00   |
|           |  | Hip OA        | 7   | 60.93    | 41 to 80  | 14.29    | 100.00  |
|           | Lokk K et al, Genome Biol 2014; 15:R54                     | Controls      | 3   | 49.00    | 40 to 54  | 7.81     | 0.00    |
| Bone      | Delgado-Calle J et al, Arthritis Rheum 2013; 65:197        | Controls      | 4   | 51.75    | 40 to 60  | 8.42     | 25.00   |
|           |  | Hip Cadaver   | 7   | 80.29    | 69 to 92  | 8.08     | 100.00  |
|           |  | Hip Fracture  | 34  | 80.68    | 65 to 104 | 7.11     | 100.00  |
|           |  | Hip OA        | 33  | 75.42    | 58 to 89  | 6.74     | 100.00  |