

Supplementary tables.

Supplementary Table 1. Descriptive characteristics of the four control sets used in the study

Control set	n	sex F%	Age years		BMI kg/m ²		height cm		WOMAC pain score (possible range 0-20) †		Current knee pain %‡	Current hip pain %‡	rs143383 frequency of T allele %
			mean	SD	mean	SD	mean	SD	mean	SD			
Hertfordshire	327	49.85%	64.84	2.67	25.72	3.64	1.673	0.087	0.43	1.19	0%	N/A	62.0%
sibs from Nottingham	476	58.40%	67.01	9.03	26.59	3.93	1.659	0.092	N/A	N/A	N/A	N/A	62.9%
IVU Nottingham	291	54.98%	66.14	8.77	26.54	3.95	1.666	0.119	N/A	N/A	N/A	N/A	61.6%
IVU from GOAL	812	50.74%	62.72	8.45	27.11	4.46	1.668	0.092	0.92	2.55	7.14%	6.02%	61.7%

† Western Ontario and McMaster Osteoarthritis Index scored 0=none to 4= extreme for each of the five pain questions and summed over them.

‡ Significant pain in or around the joint most days (15+) of any month over the past year

Supplementary Table 2. Radiographic characteristics of cases and controls.

	TF K/L		hip K/L	
	(0-1)	(2-4)	(0-1)	(2-4)
controls				
Hertfordshire	100%	0%	N/A	N/A
Nottingham	100%	0%	99.7%*	0.3%*
GOAL	100%	0%	100%	0%
cases				
TKR†	1.82%‡	98.18%	80.05%*	19.95%*
THR†	57.10%*	42.90%*	1.67%¶	98.33%

TF= tibiofemoral; K/L Kellgren-Lawrence radiographic grade

† GOAL and Nottingham cases combined.

* radiographic grade at this joint was not recorded for all subjects in this category

‡ patellofemoral K/L grade ≥ 2

¶ Croft grade ≥ 3 and/or minimal joint space width ≤ 1.5 mm.