

**Supplementary data Table S1** Characteristics of women with PCOS and control subjects in the Boston and Greek cohorts.

Parameter	Boston			Greek				
	PCOS <sub>NIH</sub>	Control	P-value	PCOS <sub>NIH</sub>	PCOS <sub>Rotterdam</sub>	Control	P-value Ctl NIH	P-value Ctl Rotterdam
Age (years)	28.4 ± 7.0	28.9 ± 8.5	0.3	24.0 ± 5.6	26.0 ± 5.6	31.0 ± 5.8	5.9 × 10 <sup>-23</sup>	6.5 × 10 <sup>-8</sup>
BMI (kg/m <sup>2</sup> )	30.8 ± 8.6	23.5 ± 3.8	1.7 × 10 <sup>-53</sup>	26.7 ± 7.2	25.8 ± 5.4	28.5 ± 7.6	0.03	0.01
Waist circumference (cm)	96.1 ± 18.9	80.6 ± 10.6	2.5 × 10 <sup>-36</sup>	83.6 ± 15.5	80.3 ± 11.9	87.2 ± 15.8	0.049	0.002
Hip Circumference (cm)	108.8 ± 16.9	98.4 ± 9.5	5.6 × 10 <sup>-22</sup>	106.1 ± 13.0	105.2 ± 10.1	109.8 ± 14.0	0.02	0.02
WHR	0.88 ± 0.08	0.82 ± 0.06	7.2 × 10 <sup>-29</sup>	0.78 ± 0.08	0.76 ± 0.07	0.79 ± 0.07	0.5	0.01
SBP (mmHg)	114.1 ± 15.8	109.5 ± 12.5	1.4 × 10 <sup>-6</sup>					
DBP (mmHg)	71.6 ± 12.2	70.0 ± 9.4	0.03					
Pulse (beats per minute)	74.7 ± 10.4	68.3 ± 9.4	8.3 × 10 <sup>-20</sup>					
Testosterone (ng/dl)	64.0 ± 33.5	35.7 ± 17.2	3.8 × 10 <sup>-33</sup>	78.7 ± 29.2	77.8 ± 28.6	39.7 ± 11.2	1.0 × 10 <sup>-38</sup>	2.8 × 10 <sup>-25</sup>
SHBG (nmol/l)	41.2 ± 22.1	65.8 ± 31.0	1.5 × 10 <sup>-24</sup>	42.2 ± 26.1	46.0 ± 25.5	54.6 ± 30.8	1.4 × 10 <sup>-5</sup>	0.02
Androstenedione (ng/ml)	3.6 ± 1.3	3.1 ± 1.5	0.0001	2.8 ± 1.1	2.9 ± 1.1	1.7 ± 0.5	5.8 × 10 <sup>-26</sup>	8.4 × 10 <sup>-20</sup>
DHEAS (µg/dl)	197 ± 103	210 ± 107	0.2	312 ± 132	328 ± 139	200 ± 81	1.1 × 10 <sup>-14</sup>	3.9 × 10 <sup>-12</sup>
LH (IU/l)	26.9 ± 16.7	14.9 ± 12.8	6.9 × 10 <sup>-21</sup>	8.0 ± 5.2	6.5 ± 4.4	5.4 ± 2.5	7.7 × 10 <sup>-6</sup>	0.07
FSH (IU/l)	10.5 ± 2.9	10.6 ± 3.6	0.8	5.9 ± 1.7	6.6 ± 1.8	6.8 ± 2.4	0.8	0.8
LH:FSH	2.6 ± 1.4	1.4 ± 0.9	1.1 × 10 <sup>-26</sup>	1.4 ± 0.9	1.0 ± 0.6	1.0 ± 1.6	0.0009	0.8
FG score	12.6 ± 7.6	4.1 ± 2.3	3.3 × 10 <sup>-72</sup>					
HbA1C (%)	5.3 ± 0.3	5.2 ± 0.3	0.0006					
Fasting glucose (mg/dl)	84.9 ± 9.4	80.9 ± 7.3	5.1 × 10 <sup>-10</sup>	98.0 ± 16.3	96.6 ± 11.0	100.5 ± 10.1	0.1	0.04
Glucose 120 min (mg/dl)	99.9 ± 28.6	85.2 ± 21.9	4.3 × 10 <sup>-13</sup>	112.8 ± 32.5	109.0 ± 26.8	107.7 ± 32.2	0.16	0.54
Fasting insulin (µIU/ml)	10.6 ± 10.3	5.2 ± 3.7	2.5 × 10 <sup>-18</sup>	12.4 ± 11.3	10.0 ± 6.4	12.3 ± 15.1	0.56	0.30
Insulin 120 min (µIU/ml)	60.1 ± 62.4	25.4 ± 17.5	2.0 × 10 <sup>-20</sup>					
HOMA-IR	2.3 ± 2.4	1.0 ± 0.7	1.6 × 10 <sup>-18</sup>					
Glucose/insulin	14.4 ± 10.5	20.0 ± 9.8	9.8 × 10 <sup>-13</sup>	11.8 ± 7.5	12.9 ± 11.0	11.8 ± 7.5	0.36	0.50
Cholesterol (mg/dl)	183.4 ± 35.3	173.9 ± 32.9	0.0004					
Triglycerides (mg/dl)	100.6 ± 63.5	67.1 ± 27.4	1.4 × 10 <sup>-17</sup>					
HDL (mg/dl)	52.8 ± 16.3	61.5 ± 14.2	7.4 × 10 <sup>-13</sup>					
LDL (mg/dl)	111.6 ± 32.3	96.1 ± 28.4	1.4 × 10 <sup>-10</sup>					
Ovarian volume (ml)	15.0 ± 8.0	9.2 ± 4.0	1.7 × 10 <sup>-25</sup>	9.1 ± 4.3	10.0 ± 5.1	6.2 ± 1.9	8.5 × 10 <sup>-9</sup>	2.6 × 10 <sup>-11</sup>
Follicle number	13.5 ± 3.8	9.4 ± 3.3	5.4 × 10 <sup>-44</sup>	11.8 ± 5.5	13.0 ± 4.0	7.6 ± 2.0	7.0 × 10 <sup>-13</sup>	2.7 × 10 <sup>-22</sup>

The data for the Greek cohort are separated into PCOS by the NIH criteria ( $n = 783$ ), PCOS by the Rotterdam criteria (hyperandrogenism and polycystic ovary morphology ( $n = 101$ )) and controls.