## Supplementary Table S1  Comparisons of baseline anthropometric and biochemical characteristics of normoandrogenemic and hyperandrogenemic polycystic ovary syndrome and normal cycling controls

| Variables                      | Non-PCOS (μ ± SD) | NA-PCOS (μ ± SD) | HA-PCOS (μ ± SD) |
|-------------------------------|------------------|-----------------|-----------------|
| **Anthropometric**            |                  |                 |                 |
| BW (kg)                       | 61.4 ± 8.8       | 70.8 ± 16.7     | 73.4 ± 17.0<sup>a,b</sup> |
| BMI (kg/m²)                   | 23.4 ± 3.0       | 27.5 ± 1.2      | 28.6 ± 6.6<sup>a,b</sup> |
| DBP (mmHg)                    | 116.9 ± 9.5      | 116.9 ± 12.4    | 118.7 ± 12.3<sup>a,b</sup> |
| SBP (mmHg)                    | 71.9 ± 9.0       | 74.6 ± 6.0      | 76.1 ± 9.3<sup>a,b</sup> |
| WC (cm)                       | 72.4 ± 7.1       | 82.4 ± 1.6      | 85.1 ± 1.1<sup>a,b,c</sup> |
| WHR (ratio)                   | 0.74 ± 0.05      | 0.78 ± 0.07     | 0.81 ± 0.08<sup>a,b,d</sup> |
| LBM (kg)                      | 43.2 ± 4.4       | 46.3 ± 5.9      | 46.5 ± 6.6<sup>a,b</sup> |
| LBM (%)                       | 70.8 ± 5.9       | 65.0 ± 7.6      | 63.5 ± 8.4<sup>a,b</sup> |
| FM (kg)                       | 18.3 ± 5.9       | 25.5 ± 1.1      | 27.4 ± 1.3<sup>a,b</sup> |
| FM (%)                        | 29.9 ± 5.8       | 34.9 ± 7.6      | 35.8 ± 8.4<sup>a,b</sup> |
| FM/LBM (ratio)                | 0.42 ± 0.1       | 0.56 ± 0.2      | 0.60 ± 0.2<sup>a,b</sup> |
| **Anthropometric metabolic indexes** |                  |                 |                 |
| WTI (WC/TG)                   | 60.6 ± 4.4       | 83.1 ± 8.7      | 115.3 ± 13.9<sup>a,b,d</sup> |
| CI (%, pg/ml,nmoll/L)         | 1.07 ± 0.06      | 1.12 ± 0.01     | 1.16 ± 0.01<sup>a,b,c</sup> |
| BSI (10⁻¹⁴ kg⁻² m⁻²)          | 0.19 ± 0.01      | 0.21 ± 0.02     | 0.22 ± 0.03    |
| VAI (cm, kg/m, mmol)          | 1.08 ± 0.08      | 1.71 ± 0.02     | 1.96 ± 0.02<sup>a,b</sup> |
| LAP (cm, mmol/L)              | 11.8 ± 2.1       | 21.8 ± 2.5      | 29.5 ± 2.7<sup>a,b,l</sup> |
| **Metabolic parameters**      |                  |                 |                 |
| Go (mmol/L)                   | 4.7 ± 0.4        | 4.8 ± 0.4       | 5.0 ± 0.6<sup>a,b</sup> |
| G120 (mmol/L)                 | 5.2 ± 1.1        | 6.5 ± 1.9       | 6.6 ± 2.2<sup>a,b</sup> |
| Io (mmol/L)                   | 43.7 ± 3.2       | 76.7 ± 6.7      | 81.2 ± 9.3<sup>a,b,d</sup> |
| Go/Io (ratio)                 | 0.11 ± 0.01      | 0.07 ± 0.01     | 0.07 ± 0.04<sup>a,b</sup> |
| HOMA-IR                       | 0.87 ± 0.01      | 1.41 ± 0.11     | 1.70 ± 0.16<sup>a,b,d</sup> |
| HOMA%B                        | 95.3 ± 3.3       | 125.8 ± 1.4     | 128.8 ± 6.3<sup>a,b</sup> |
| Cpep (nmol/L)                 | 0.49 ± 0.02      | 0.74 ± 0.40     | 0.83 ± 0.41<sup>a,b,h</sup> |
| eAG (mmol/L)                  | 5.3 ± 0.6        | 5.8 ± 1.4       | 6.0 ± 1.3<sup>a,b</sup> |
| TC (mmol/L)                   | 4.3 ± 0.8        | 4.6 ± 0.7       | 4.6 ± 0.9<sup>a,b</sup> |
| HDL-C (mmol/L)                | 1.4 ± 1.2        | 1.2 ± 0.3       | 1.2 ± 0.3<sup>a,b</sup> |
| LDL-C (mmol/L)                | 2.5 ± 0.7        | 2.7 ± 0.8       | 2.8 ± 0.7<sup>a,b</sup> |
| VLDL-C (mmol/L)               | 0.44 ± 0.03      | 0.58 ± 0.37     | 0.65 ± 0.46<sup>a,b</sup> |
| TG (mmol/L)                   | 0.85 ± 0.05      | 1.20 ± 0.67     | 1.40 ± 0.89<sup>h,l,m</sup> |
| **Hormones**                  |                  |                 |                 |
| T (nmol/L)                    | 1.0 ± 0.2        | 1.0 ± 0.3       | 2.0 ± 0.1<sup>a,b</sup> |
| FT pmol/L(l)                  | 0.011 ± 0.001    | 0.013 ± 0.001   | 0.042 ± 0.001<sup>a,b,n</sup> |
| DHEA (nmol/L)                 | 14.2 ± 1.9       | 13.6 ± 0.9      | 16.4 ± 1.6<sup>a,b,n</sup> |
| DHEAS (umol/l)                | 3.8 ± 0.2        | 3.5 ± 0.2       | 5.3 ± 0.3<sup>a,b,n</sup> |
| A4 (nmol/L)                   | 4.9 ± 0.4        | 5.1 ± 0.5       | 10.± 0.6<sup>a,b,n</sup> |
| SHBG (nmol/L)                 | 60.4 ± 3.2       | 49.7 ± 3.3      | 33.1 ± 3.2<sup>a,b,n</sup> |
| FAI (%)                       | 1.8 ± 0.5        | 2.2 ± 0.4       | 7.2 ± 1.8<sup>a,b,n</sup> |
| IHA                           | 403.4 ± 6.2      | 435.8 ± 3.1     | 4479.0 ± 4.4<sup>a,b,n</sup> |

<sup>a</sup>= Non-PCOS vs NA-PCOS, p < 0.001; <sup>b</sup>= Non-PCOS vs HA-PCOS, p < 0.001; <sup>c</sup>= NA-PCOS vs HA-PCOS, p = 0.010; <sup>d</sup>= NA-PCOS vs HA-PCOS, p = 0.003; <sup>e</sup>= NA-PCOS vs NA-PCOS, p = 0.009; <sup>f</sup>= NA-PCOS vs HA-PCOS, p = 0.004; <sup>G</sup>= Non-PCOS vs NA-PCOS, p = 0.001; <sup>h</sup>= NA-PCOS vs HA-PCOS, p = 0.024; <sup>i</sup>= Non-PCOS vs NA-PCOS, p = 0.017; <sup>j</sup>= Non-PCOS vs NA-PCOS, p = 0.031; <sup>k</sup>= Non-PCOS vs NA-PCOS, p = 0.023; <sup>l</sup>= Non-PCOS vs NA-PCOS, p = 0.002; <sup>m</sup>= NA-PCOS vs NA-PCOS, p = 0.022; <sup>n</sup>= NA-PCOS vs HA-PCOS, p < 0.001.

Abbreviations: BW, body weight; BMI, body mass index; DBP, diastolic blood pressure; SBP, systolic blood pressure; WC, waist circumference; WHR, waist-hip ratio; LBM, lean body mass; FM, fat mass; WTI, waist circumference-triglyceride index; CI, conicity index; BSI, body shape index; VAI, visceral adiposity index; LAP, lipid accumulation product; Go, fasting glucose; G120, glucose; Io, fasting insulin; HOMA-IR, homeostatic assessment model of insulin resistance; HOMA%B, homeostatic model assessment of β-cell function; Cpep, C-peptide; eAG, average glucose; TC, total cholesterol; HDL-C, high-density lipoprotein cholesterol; LDL-C, low-density lipoprotein cholesterol; VLDL-C, very-low-density lipoprotein cholesterol; TG, triglyceride; T, testosterone; FT, free thyroxin; DHEA, dehydroepiandrosterone; DHEAS, sulfate of dehydroepiandrosterone; A4, androstenedione; SHBG= sex hormone binding-globulin; FAI, free androgen index; IHA, index of hyperandrogenism.