

Table S2. Significantly enriched transcription factors (TFs) from CiiiDER enrichment analysis. The group column denotes the planned comparisons and direction of gene expression (upregulated or downregulated) used as input for the analysis. The enriched TF column denotes the over-represented enriched TF shared between the sexes at the planned comparison. Differentially expressed (DE) target columns denote the predicted DE genes that the TF contains enriched binding sites in, for male and female AGS.

Group	Enriched TF between the sexes	DE target genes males	DE targets genes females
Upregulated DE genes in males and females at LH vs. EH	<i>Dmbx1</i>	<i>Ccdc177</i>	<i>Ccdc177</i>
	<i>Gcm2</i>	<i>Adra2, Ccdc177, Tk1, Vtn, Gja4, Acot11, Tspo</i>	<i>Ccdc177, Slc16a2</i>
Downregulated DE genes in males and females at LH vs. EH	<i>Hoxc11</i>	<i>Eva1c, Fem1</i>	<i>Klf4, Barhl2</i>
	<i>Nfic</i>	<i>Eva1c, Fem1</i>	<i>Papln, Scn11a, Comp, Fam107a</i>
	<i>Hoxd12</i>	<i>Eva1c, Fem1</i>	<i>Klf4, Barhl2</i>
	<i>Hoxd11</i>	<i>Eva1c, Fem1</i>	<i>Klf4, Barhl2</i>
	<i>Hoxc12</i>	<i>Eva1c, Fem1</i>	<i>Klf4, Barhl2</i>
	<i>Hoxa11</i>	<i>Eva1c, Fem1</i>	<i>Klf4, Barhl2</i>
	<i>Hoxd10</i>	<i>Eva1c, Fem1</i>	<i>Klf4, Barhl2</i>