

Supplementary Table 3. List of training genes retrieved by the NCBI database for the 'reproduction' and 'egg production' queried terms in *Gallus gallus*.

Gene ID	Description	Queried term
GNRH1 IGF1 MSTN TGFB2 GHRL PCK1 IGF2 LITAF STAT3 TSHR ACTA2 LAMA1 STAT5A ZNF764L	gonadotropin releasing hormone 1 insulin like growth factor 1 myostatin transforming growth factor beta 2 ghrelin, preproghrelin phosphoenolpyruvate carboxykinase 1 insulin like growth factor 2 lipopolysaccharide induced TNF factor signal transducer and activator of transcription 3 thyroid stimulating hormone receptor actin, alpha 2, smooth muscle, aorta laminin subunit alpha 1 signal transducer and activator of transcription 5A zinc finger protein 764-like	reproduction
PRL GH PPARG PRLR HMGCR GDF9 POSTN NPY GNRHR FOXL2 RARRES1 THRSP BMP15 CETP PDGFRL C9ORF152 NCOA1	prolactin growth hormone peroxisome proliferator-activated receptor gamma prolactin receptor 3-hydroxy-3-methylglutaryl-CoA reductase growth differentiation factor 9 periostin neuropeptide Y gonadotropin-releasing hormone receptor forkhead box L2 retinoic acid receptor responder 1 thyroid hormone responsive bone morphogenetic protein 15 cholesteryl ester transfer protein platelet derived growth factor receptor like chromosome 2 open reading frame, human C9orf152 nuclear receptor coactivator 1	egg production