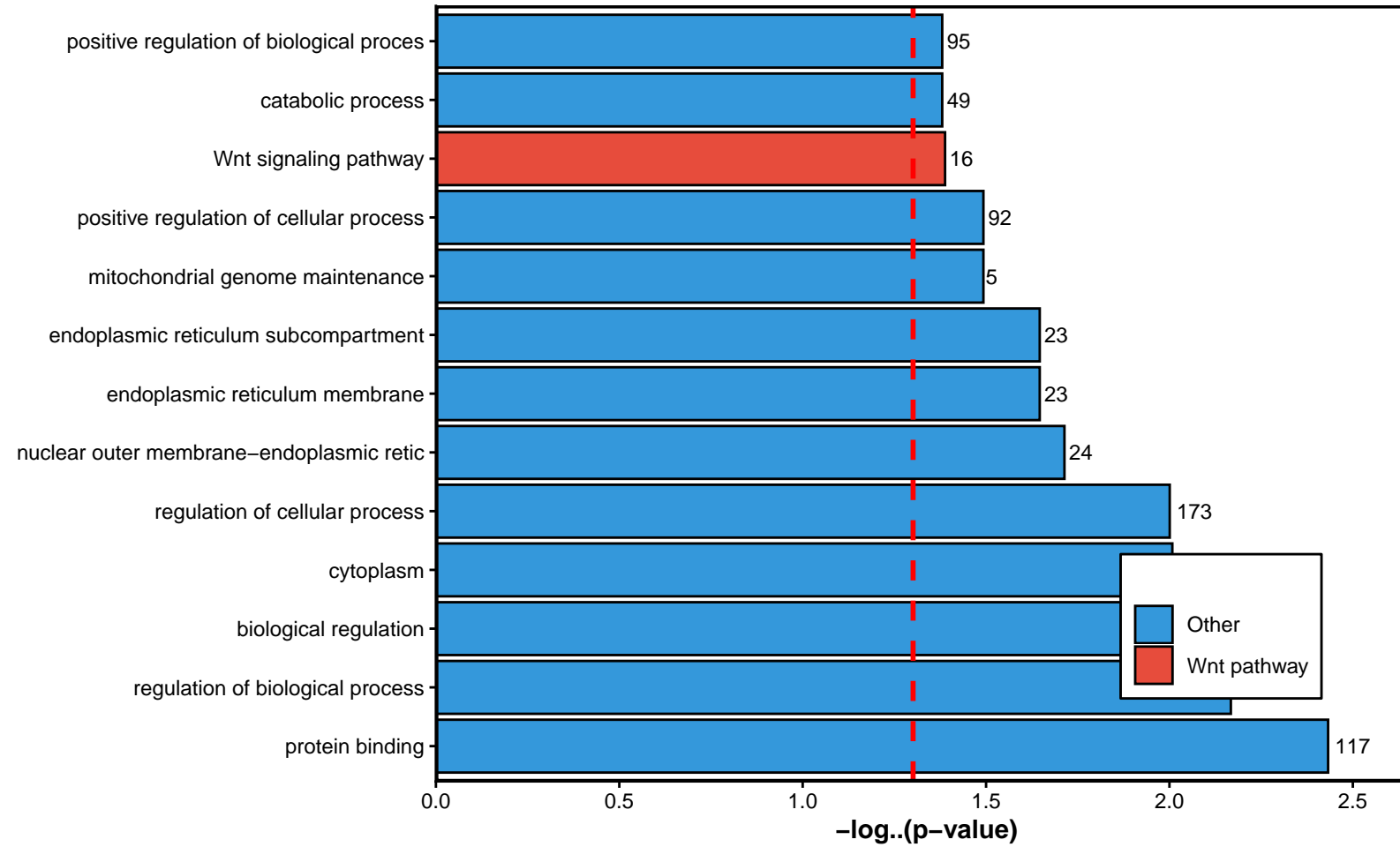


Figure 3: Wnt Signaling Pathway Enrichment and Neural Crest Hypothesis

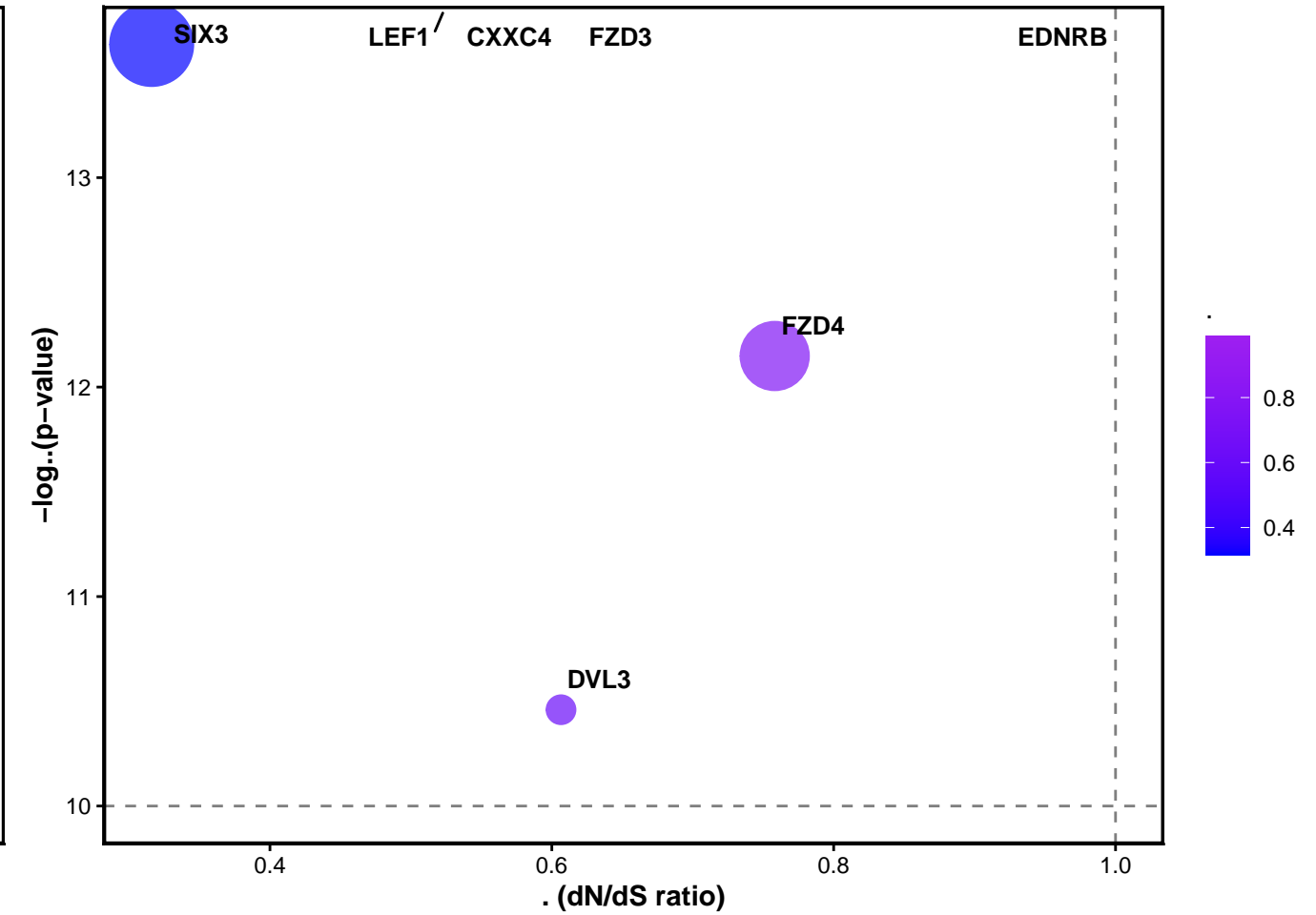
Genomic support for the neural crest hypothesis of domestication syndrome

Enriched Gene Ontology Terms

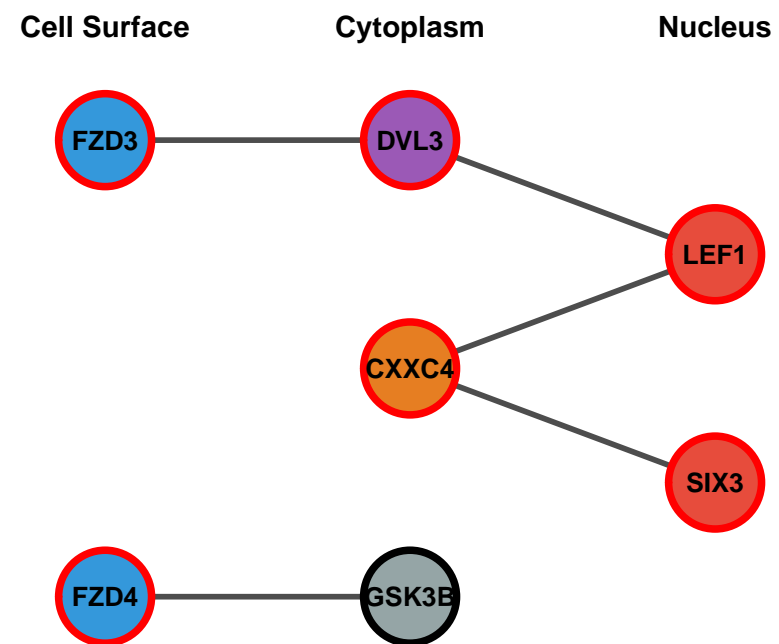
FDR < 0.05 (g:Profiler enrichment analysis)



Wnt Pathway Genes Under Selection



Wnt Signaling Pathway (Simplified)



Under Selection

○ No
○ Yes

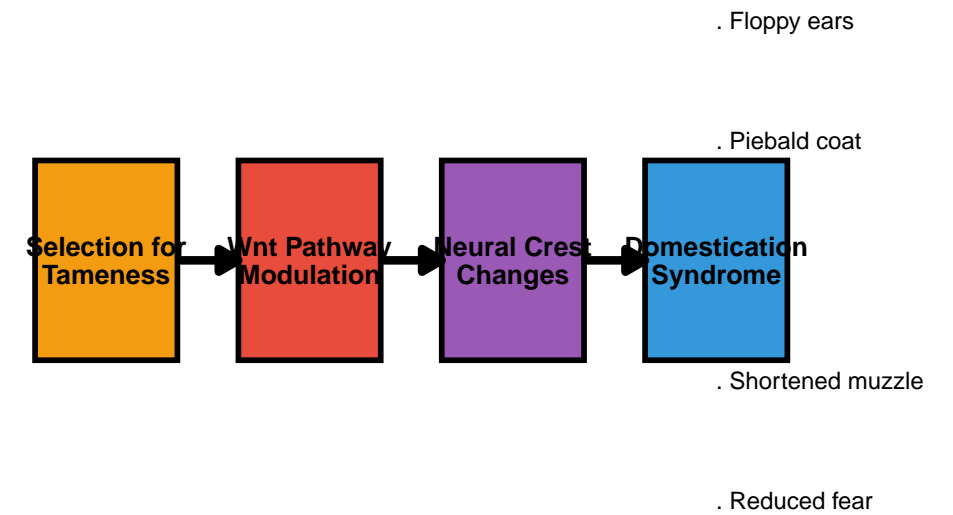
Interaction

→ activate
→ inhibit

Function

● Inhibitor
● Receptor
● Regulator
● TF
● Transducer

Neural Crest Hypothesis of Domestication Syndrome



- (A) Enriched GO terms among 337 domestication–selected genes. Wnt signaling pathway highlighted in red (p=0.041).
(B) Seven Wnt pathway genes under strong positive selection (all p<1×10⁻¹). Points colored by . value.
(C) Simplified Wnt signaling pathway showing selected genes (red outline) across cellular compartments.
(D) Neural crest hypothesis: Selection for tameness → Wnt pathway changes → Neural crest defects → Domestication syndrome traits.