D12 WT vs D12 KD Morphine addiction -Primary immunodeficiency -Carbohydrate digestion and absorption -ABC transporters -N-Glycan biosynthesis -NF-kappa B signaling pathway Transcription Thyroid hormone signaling pathway -Axon guidance -Decreased Increased Wnt signaling pathway -Inflammatory bowel disease (IBD) -Oxytocin signaling pathway -Purine metabolism -Rheumatoid arthritis -Neurotrophin signaling pathway -Chemokine signaling pathway -Genes