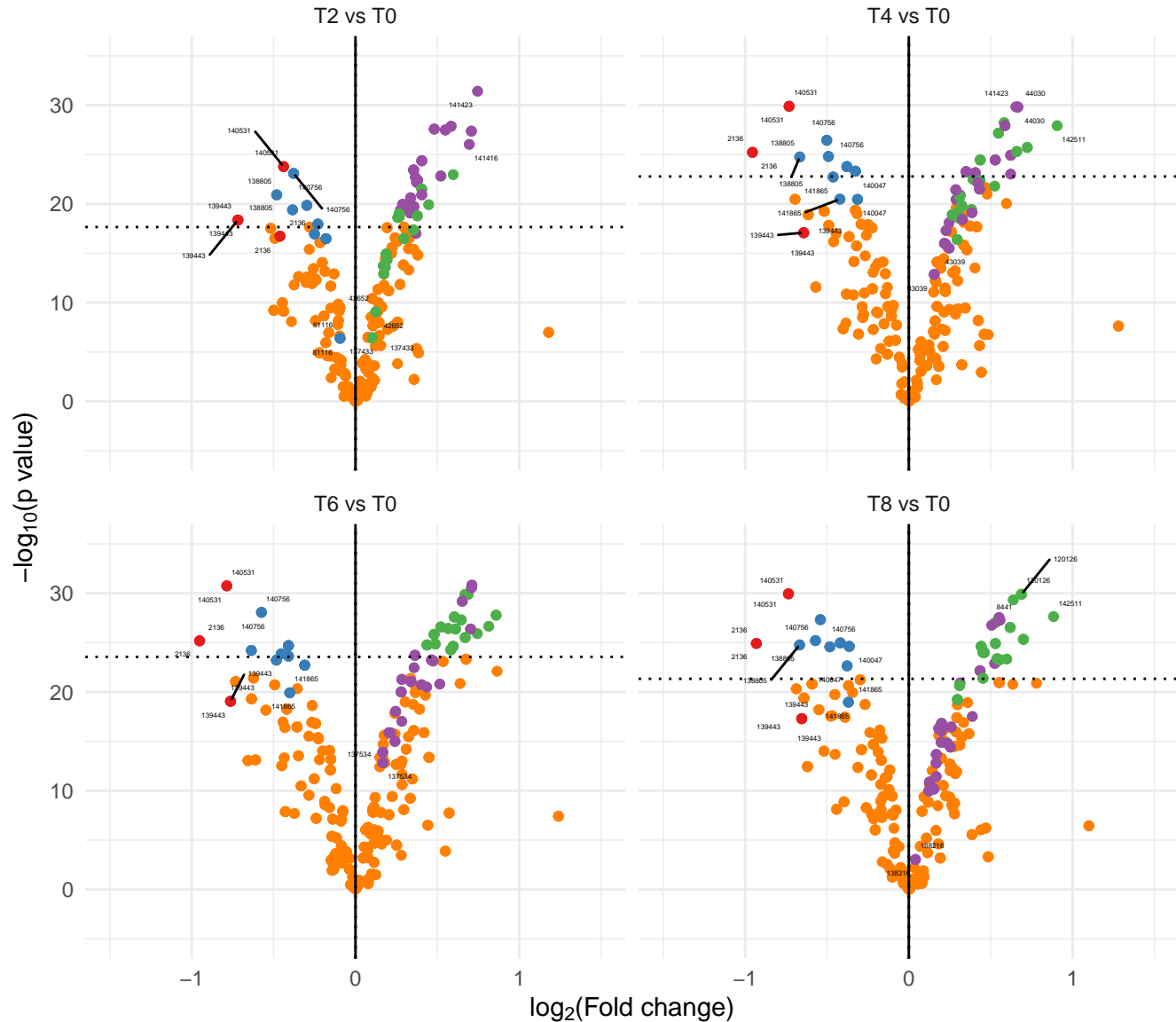
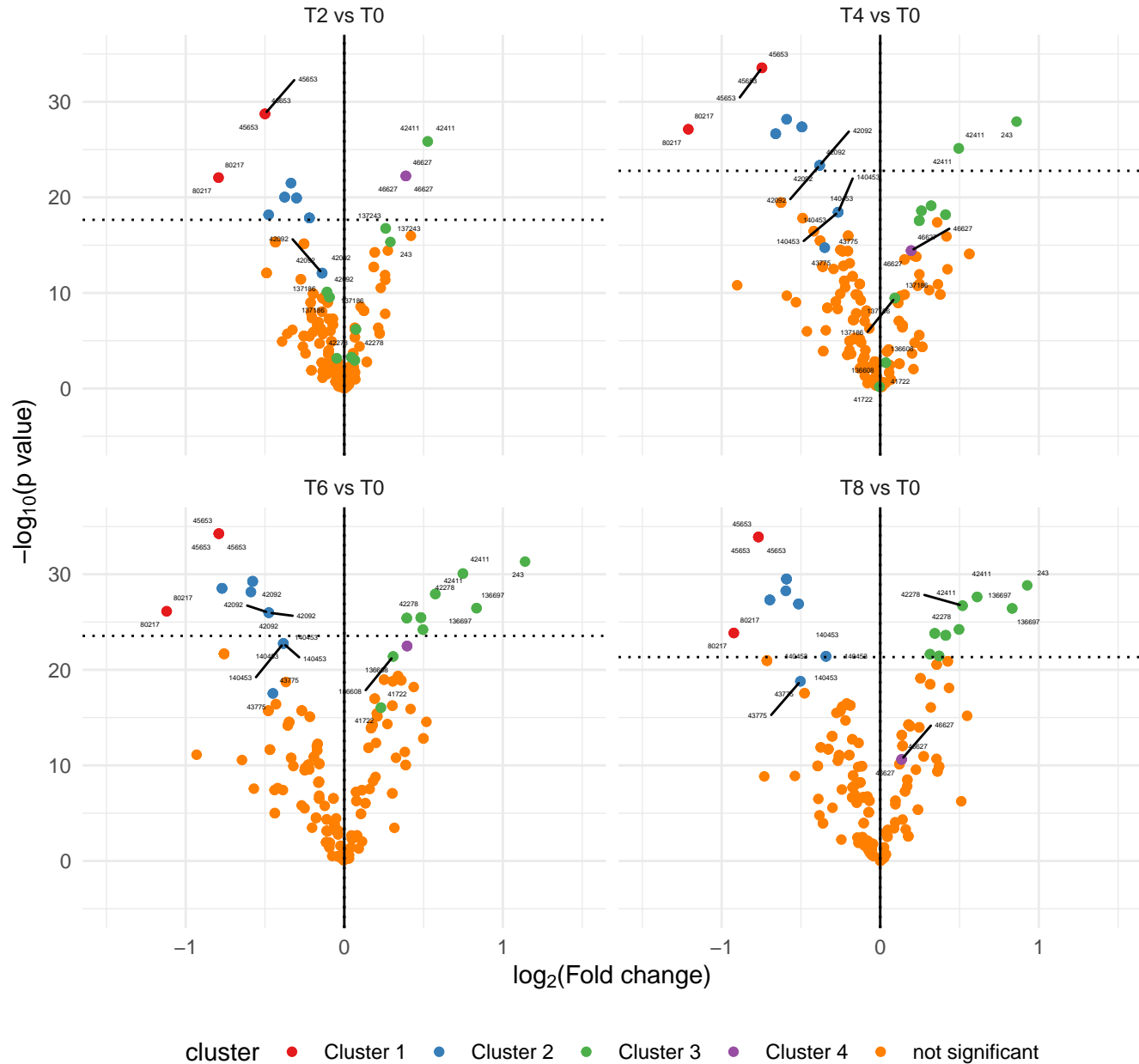


# Amino acid transport and metabolism

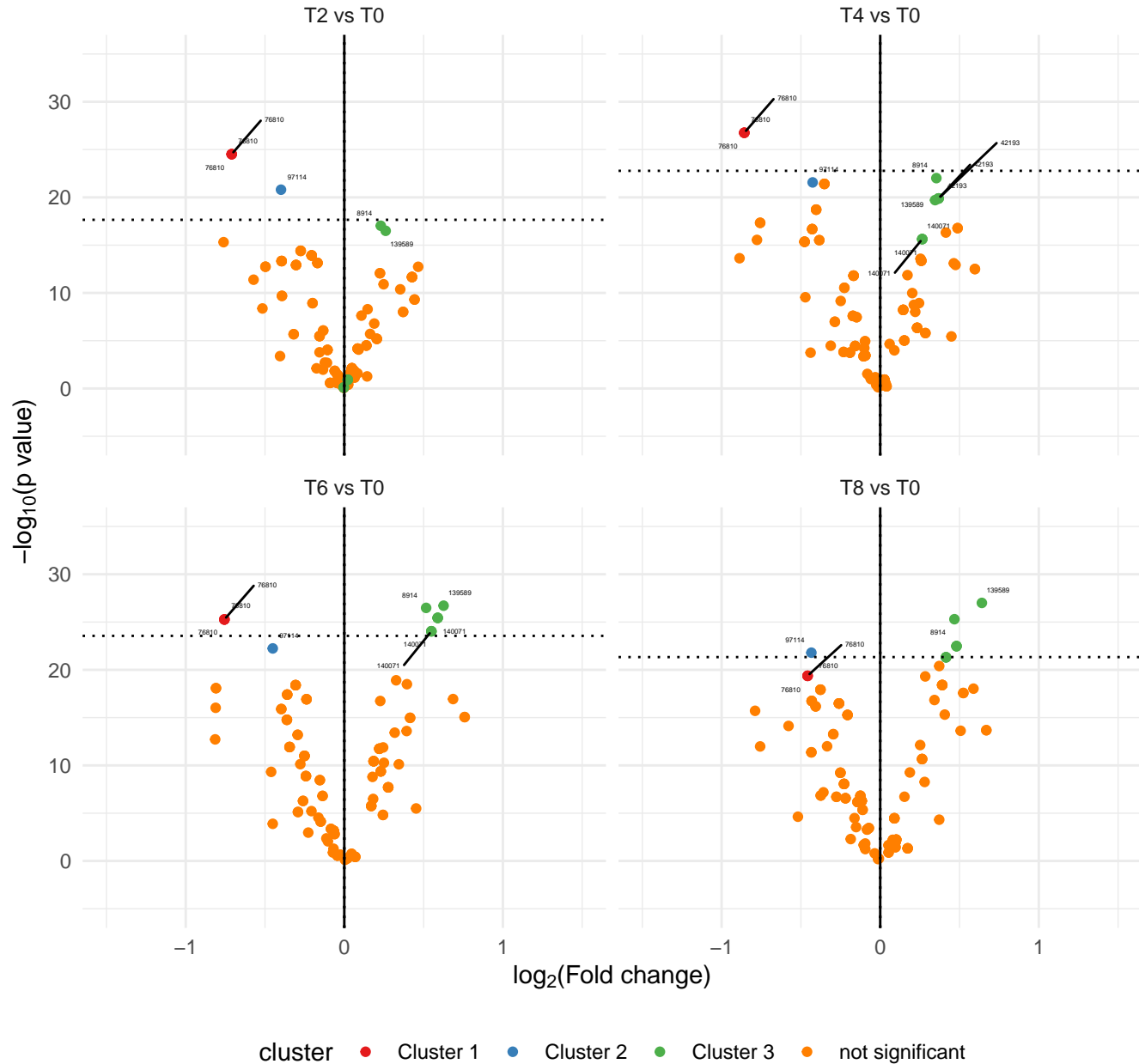


cluster    ● Cluster 1    ● Cluster 2    ● Cluster 3    ● Cluster 4    ● not significant

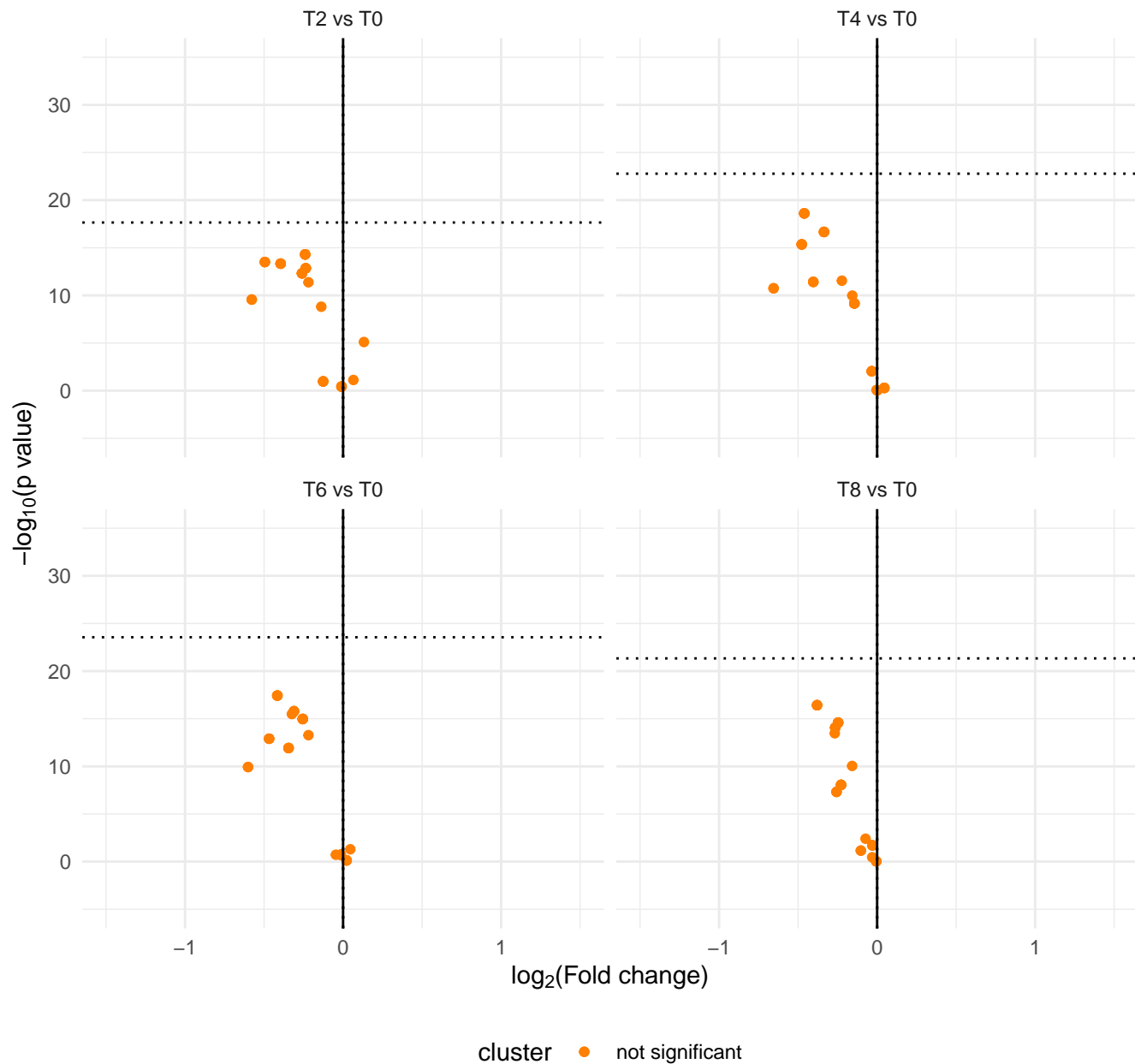
# Carbohydrate transport and metabolism



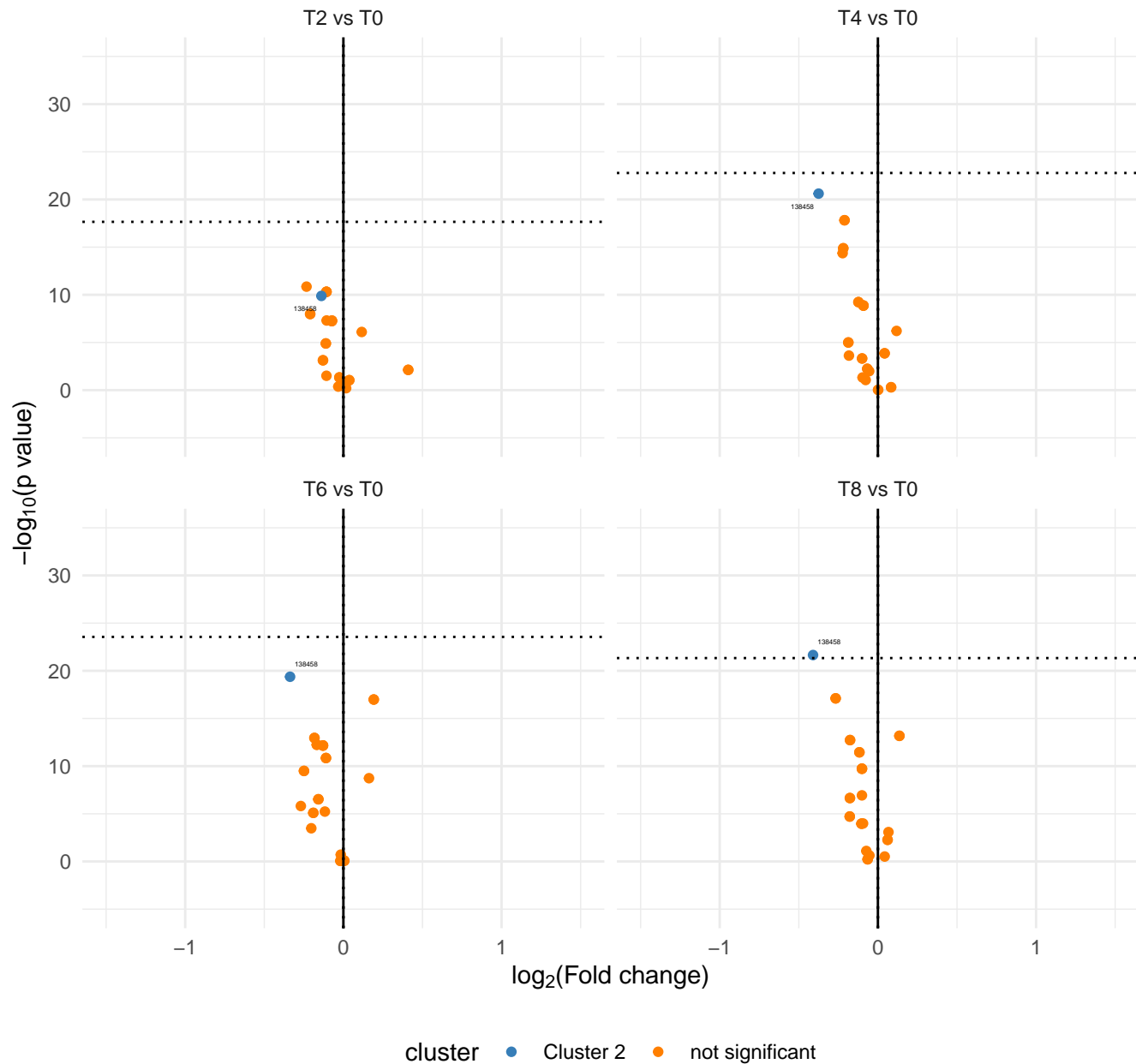
## Cell cycle control, cell division, chromosome partitioning



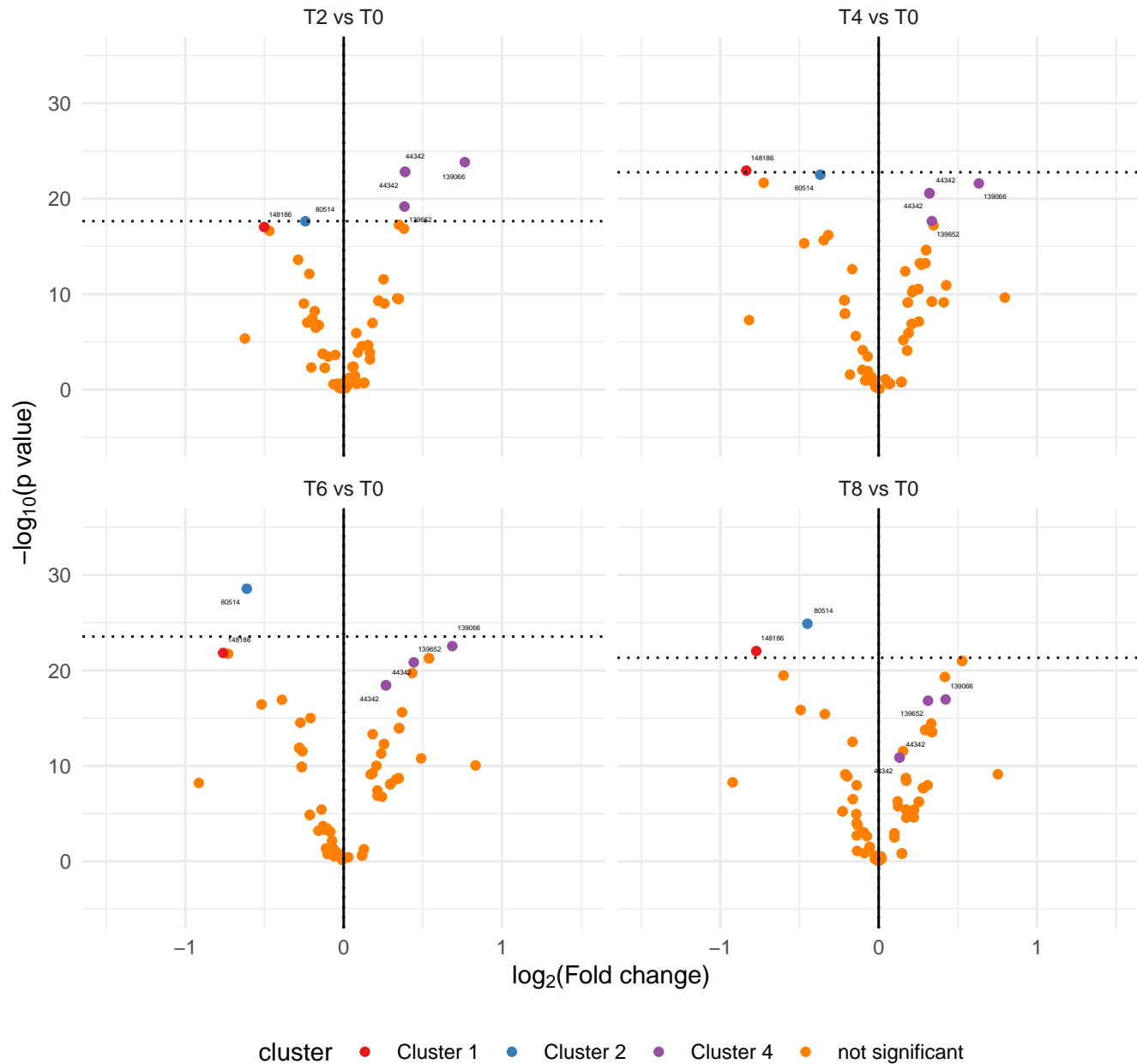
# Cell motility



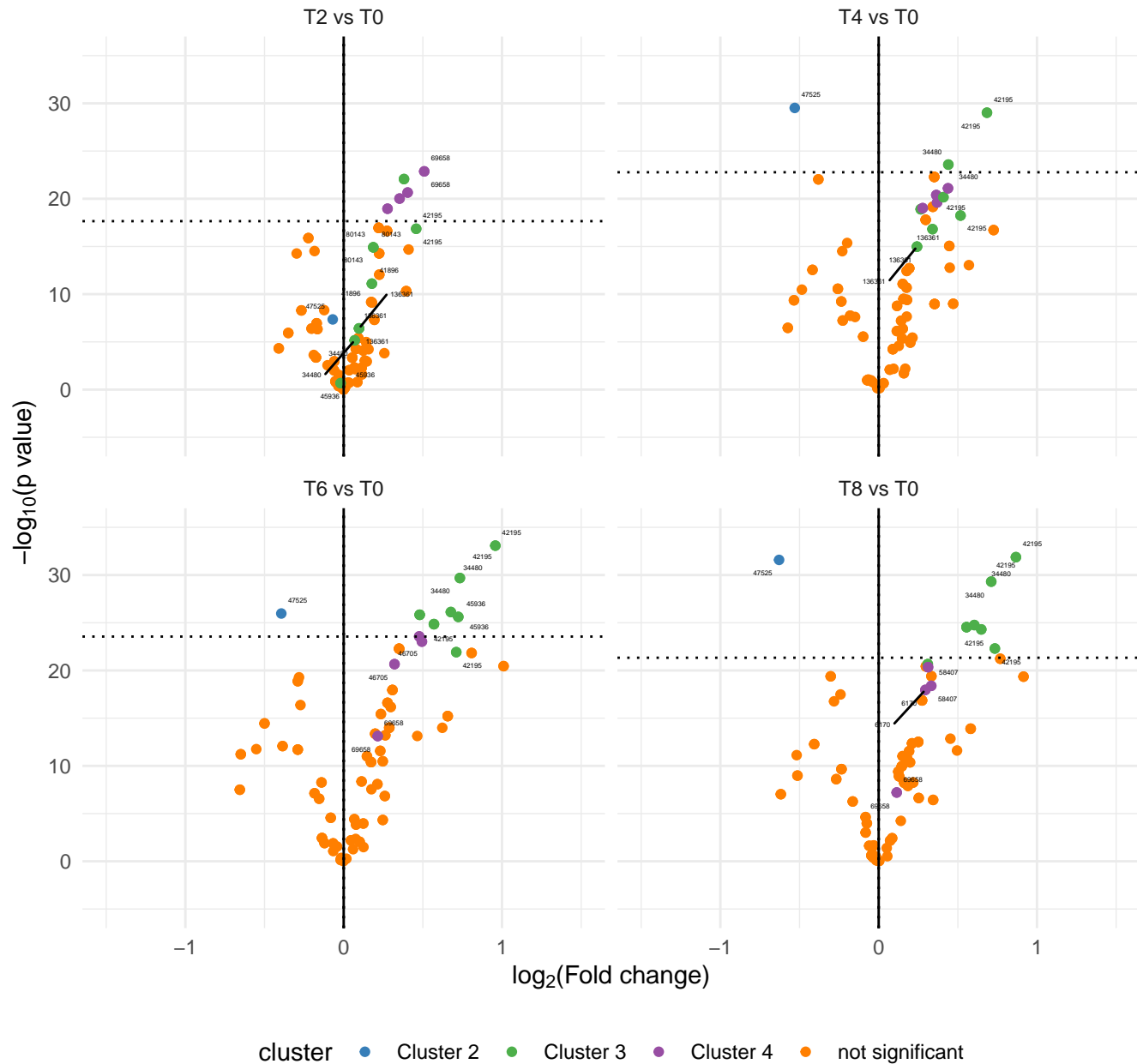
# Cell wall/membrane/envelope biogenesis



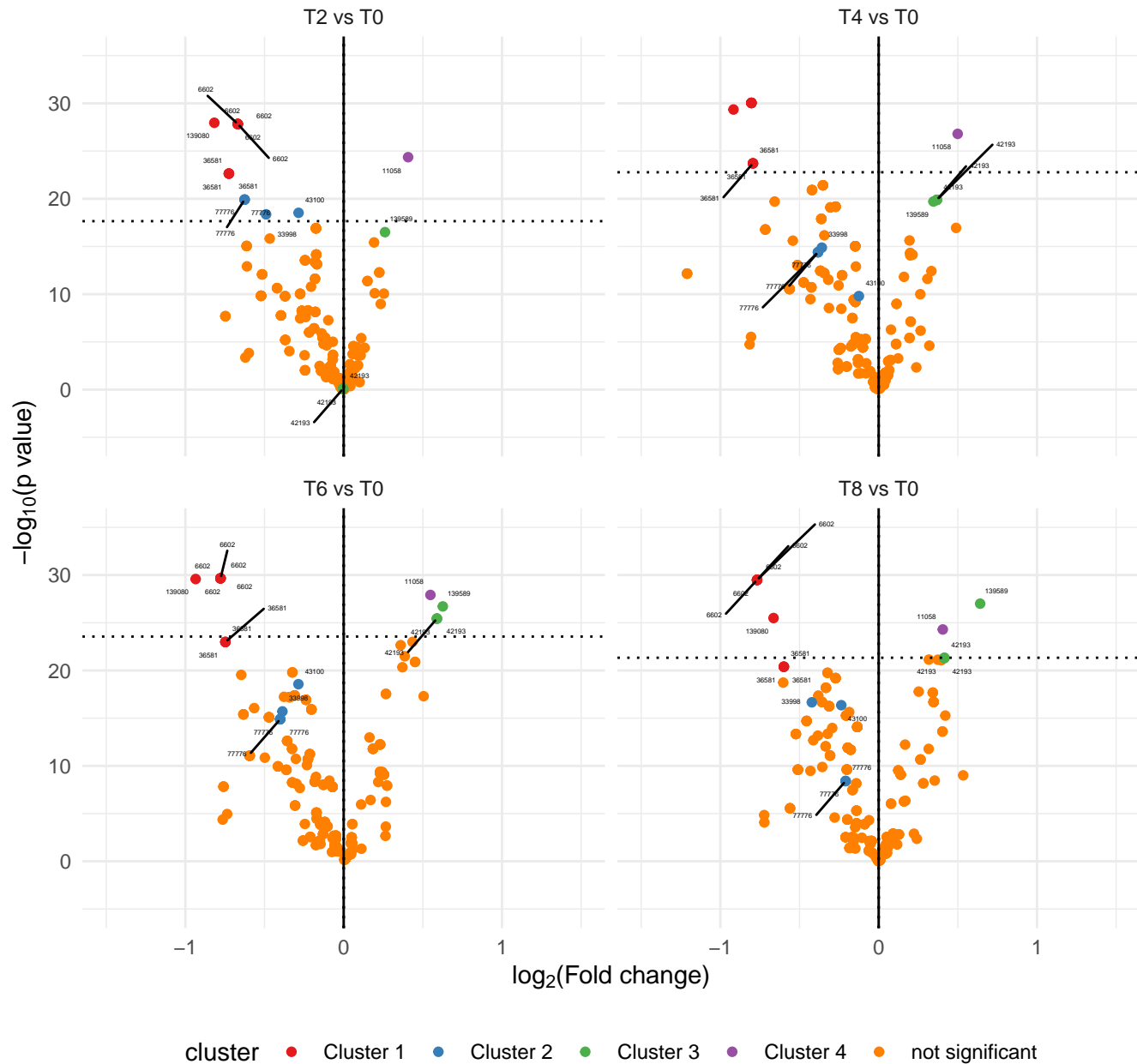
# Chromatin structure and dynamics



# Coenzyme transport and metabolism

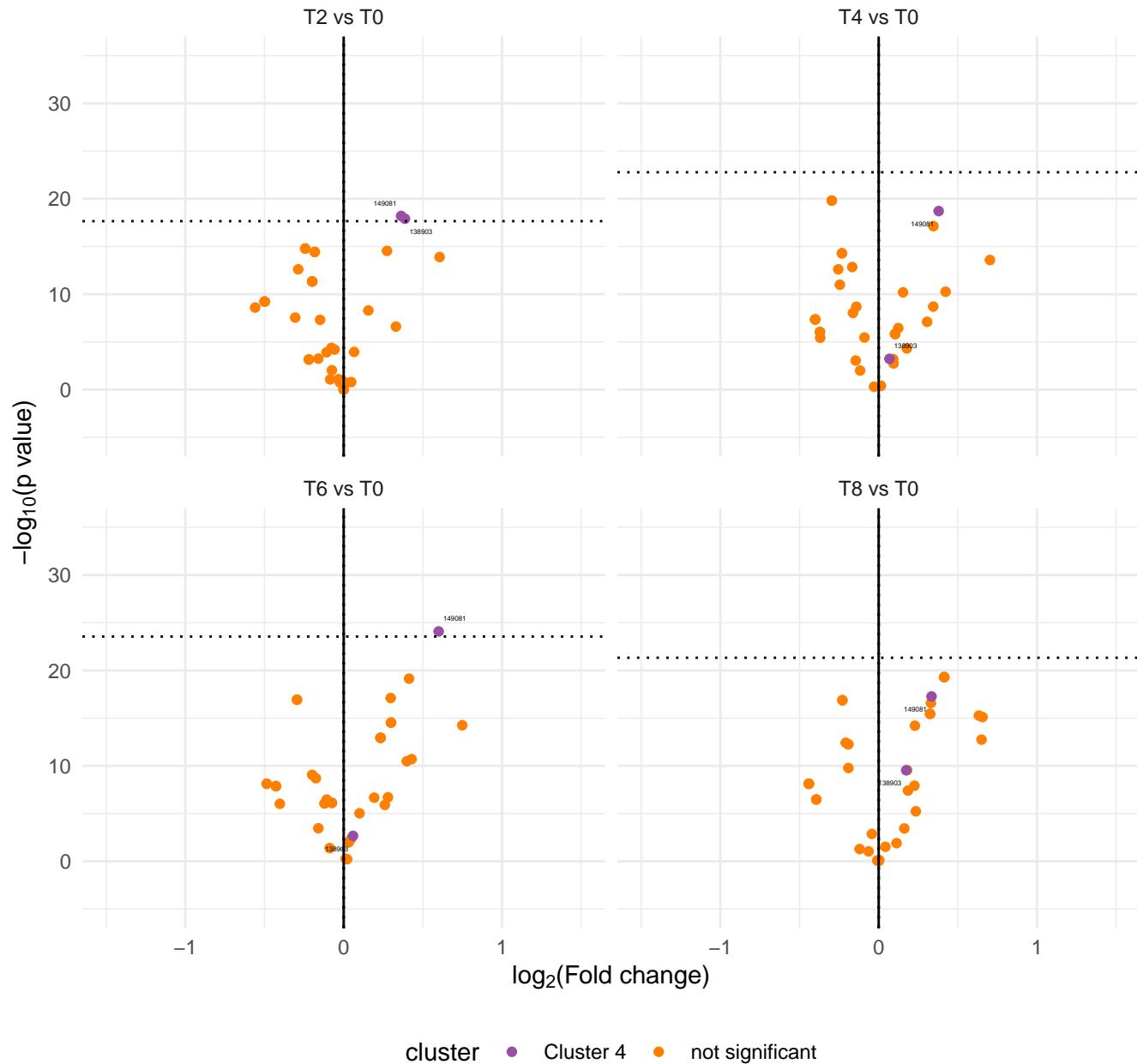


# Cytoskeleton

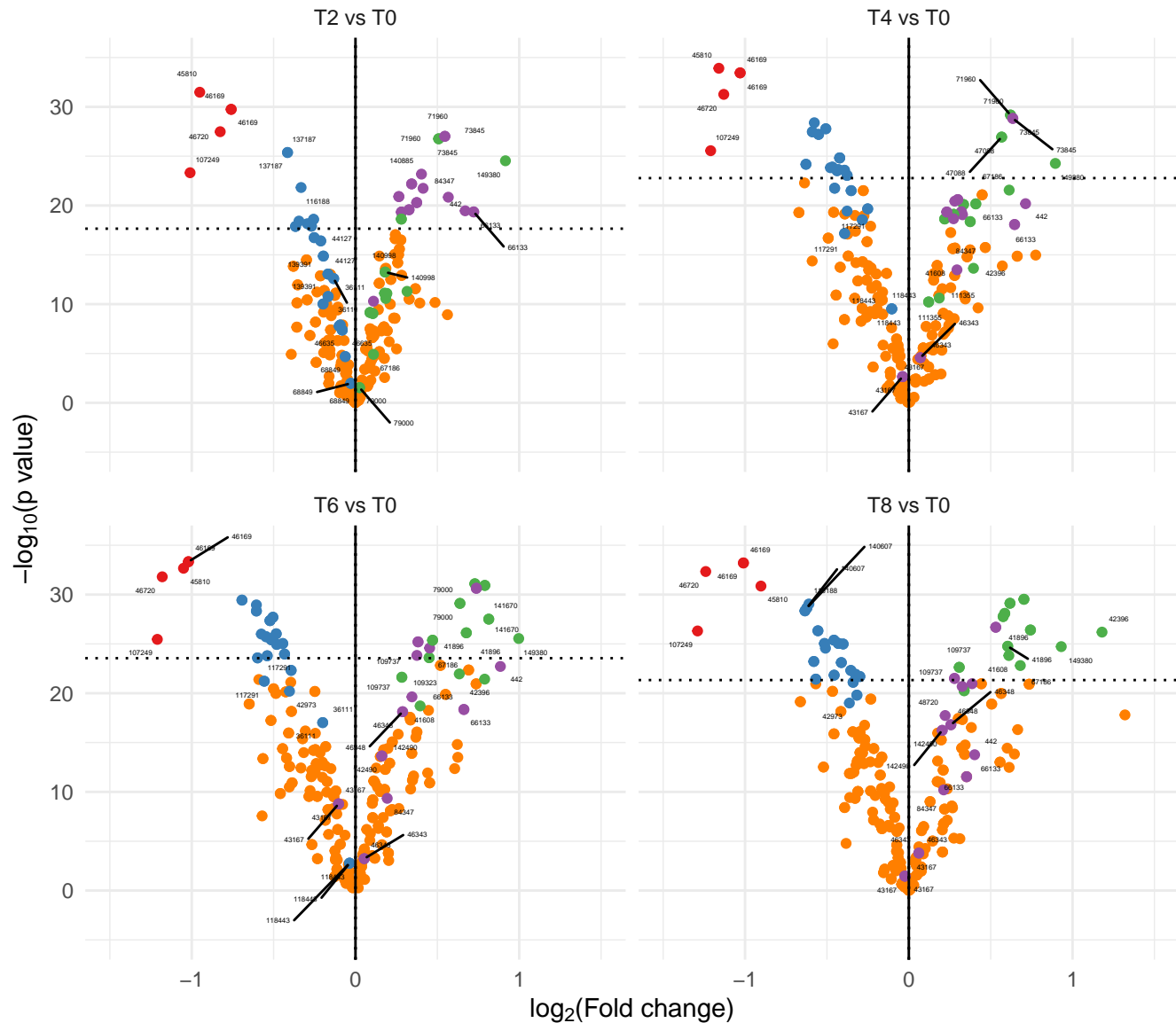




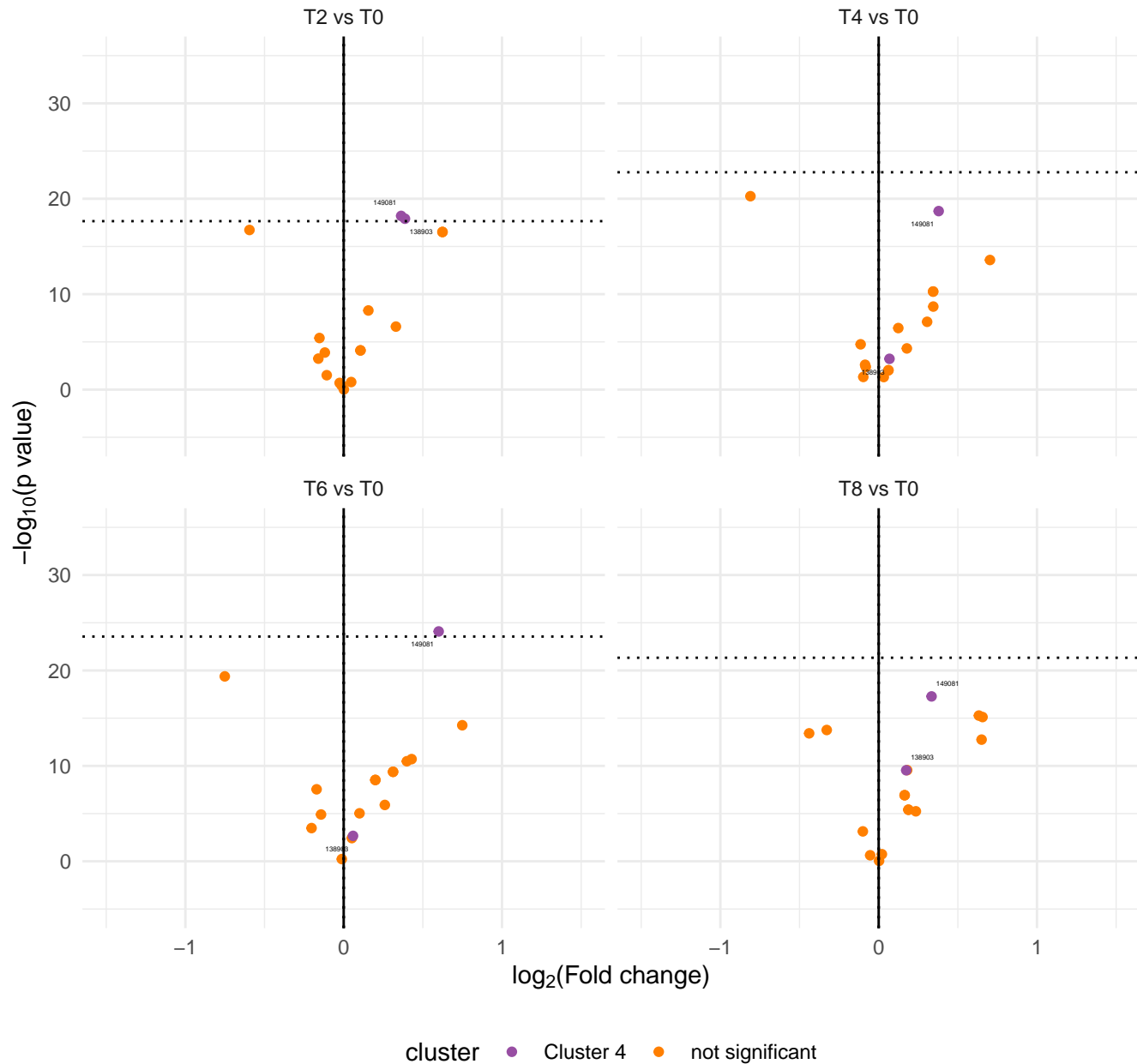
# Defense mechanisms



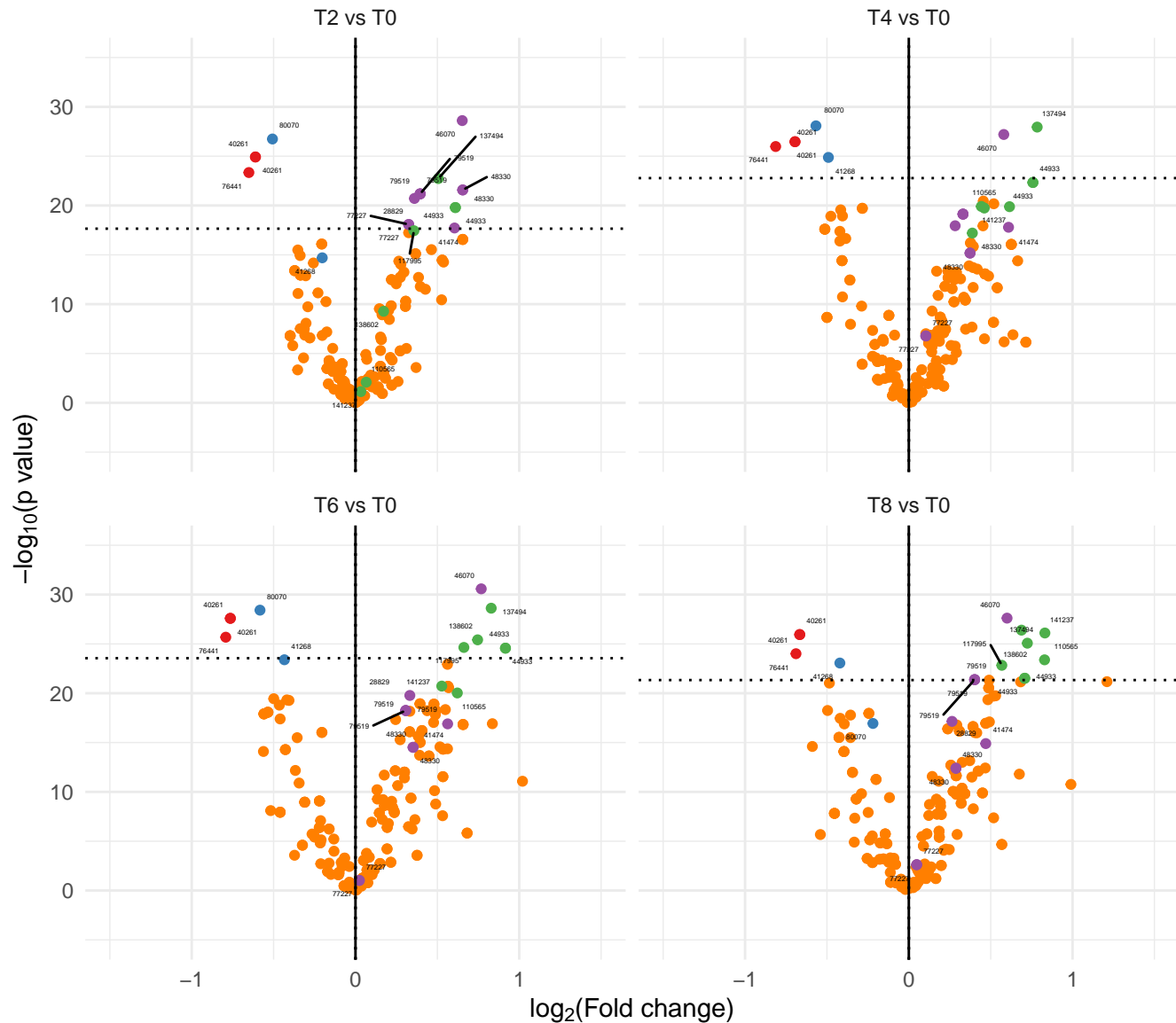
# Energy production and conversion



# Extracellular structures

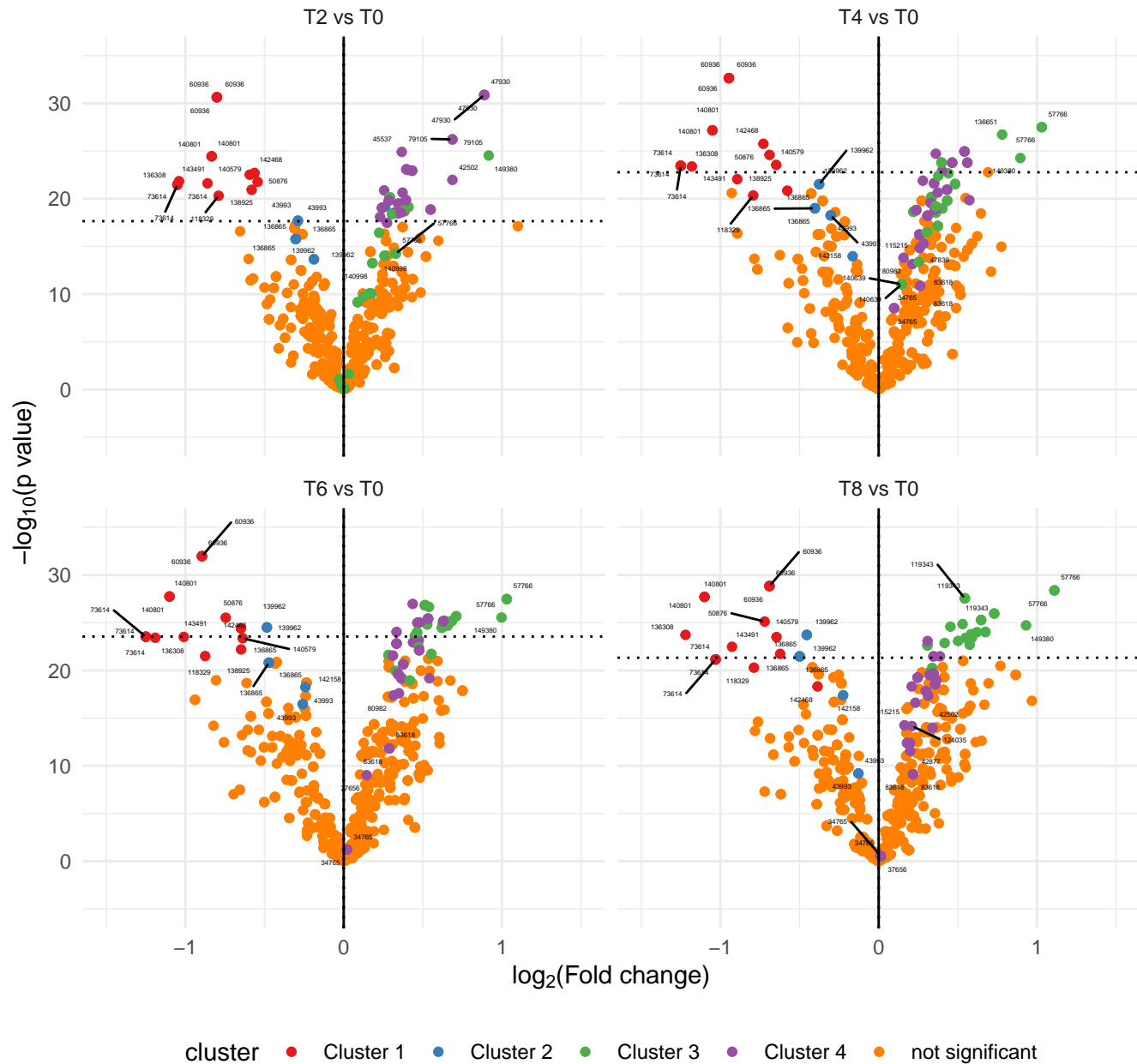


# Function unknown

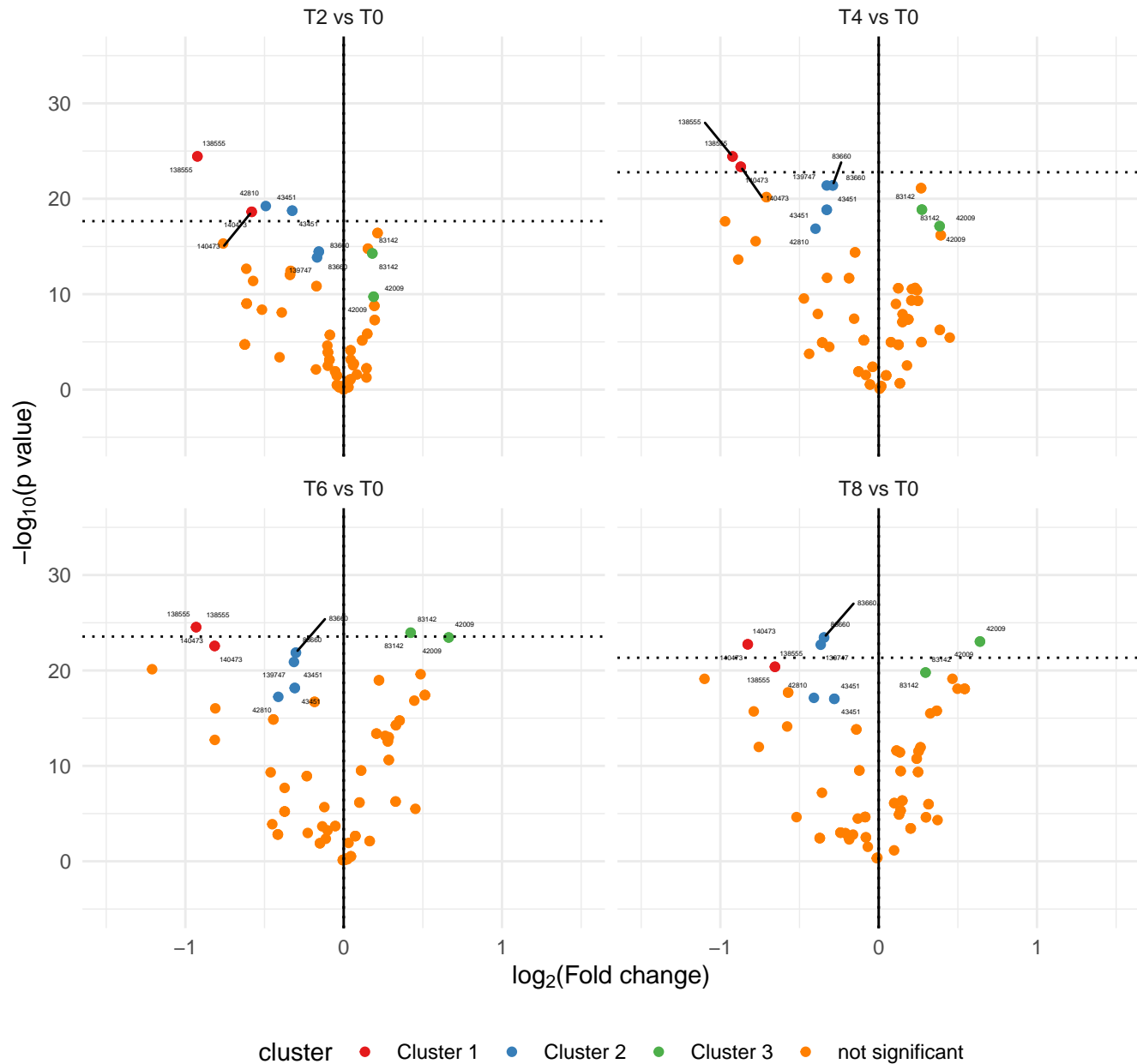


cluster    ● Cluster 1    ● Cluster 2    ● Cluster 3    ● Cluster 4    ● not significant

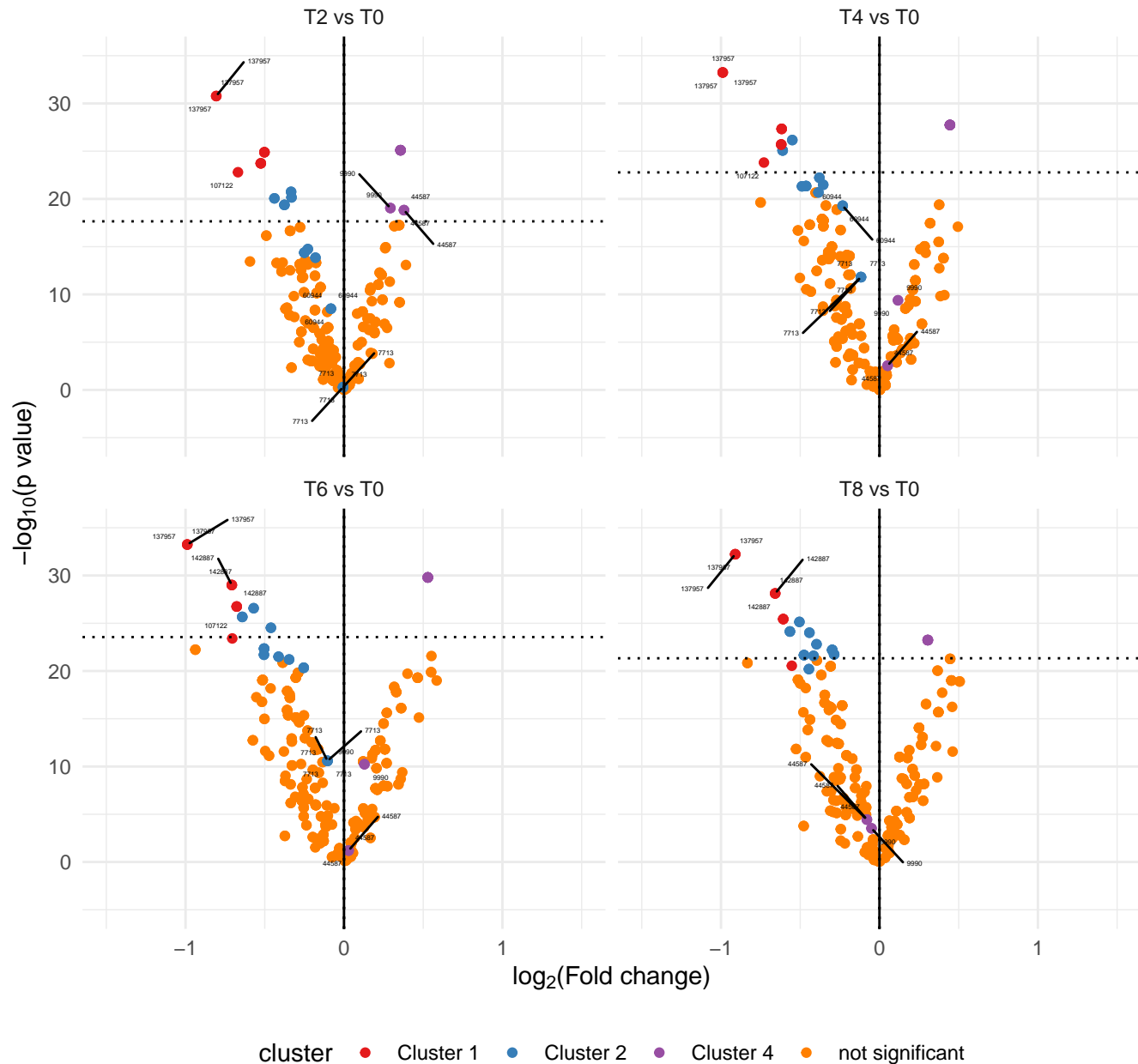
# General function prediction only



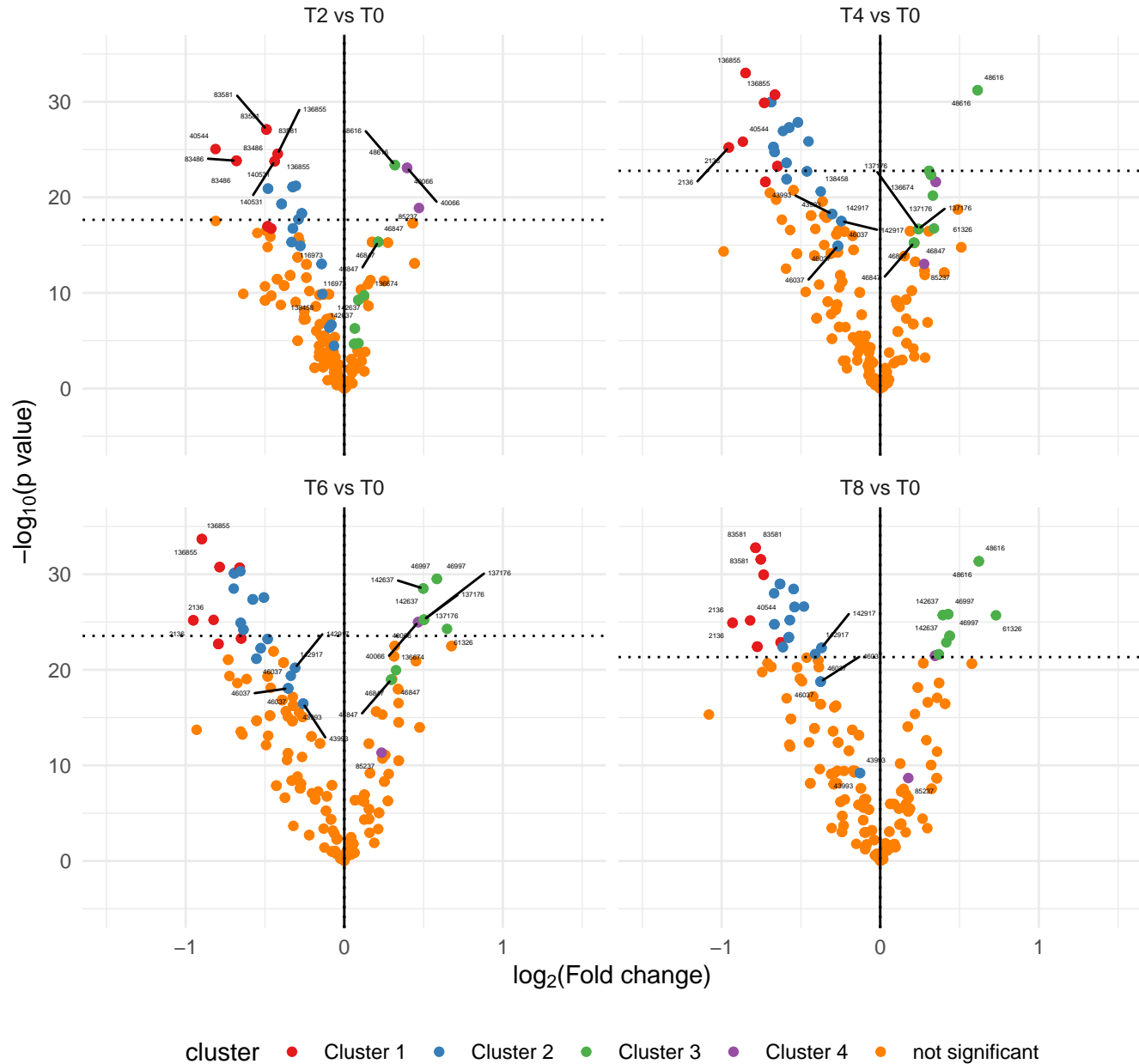
# Inorganic ion transport and metabolism



# Intracellular trafficking, secretion, and vesicular transport

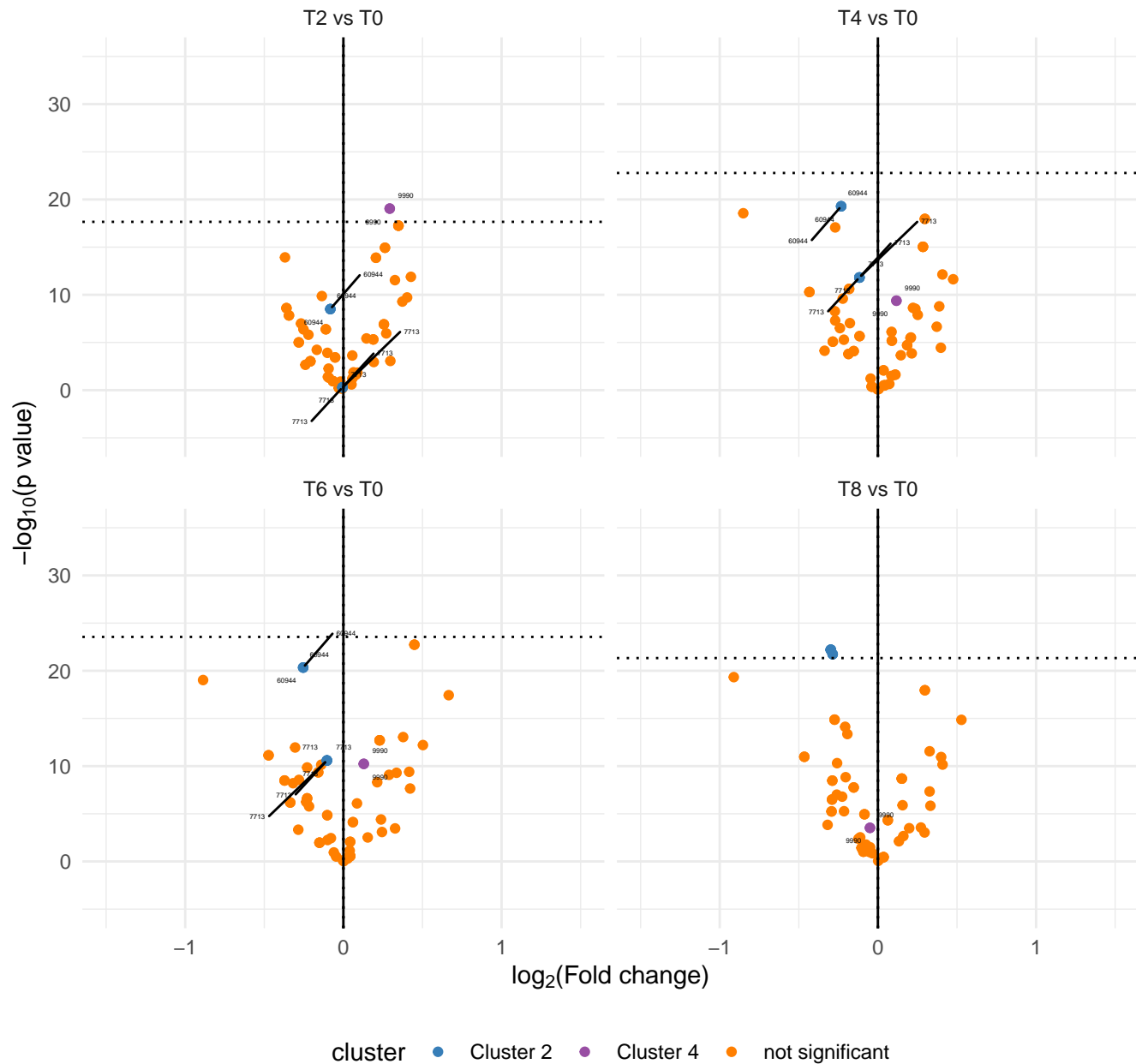


# Lipid transport and metabolism

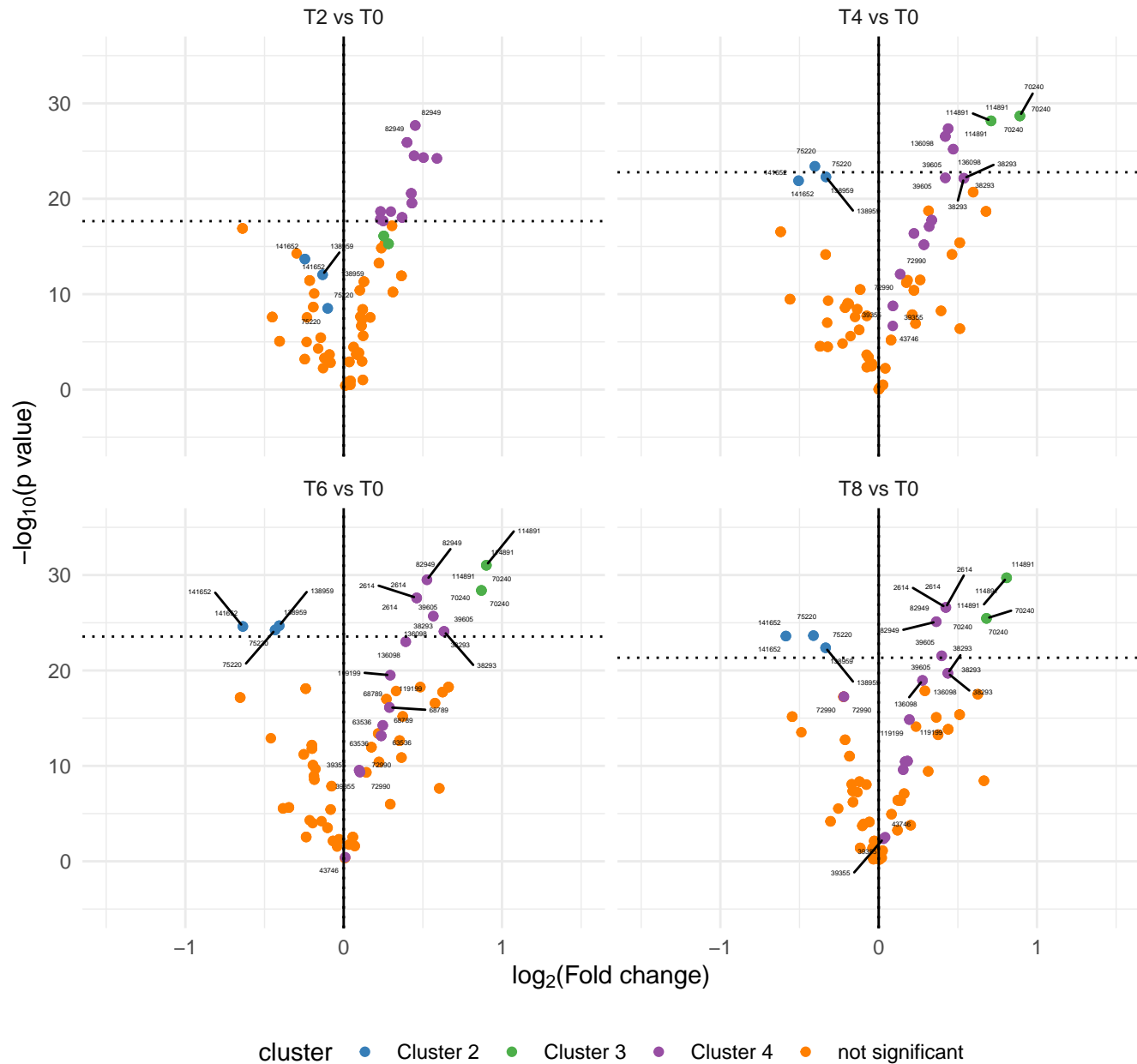




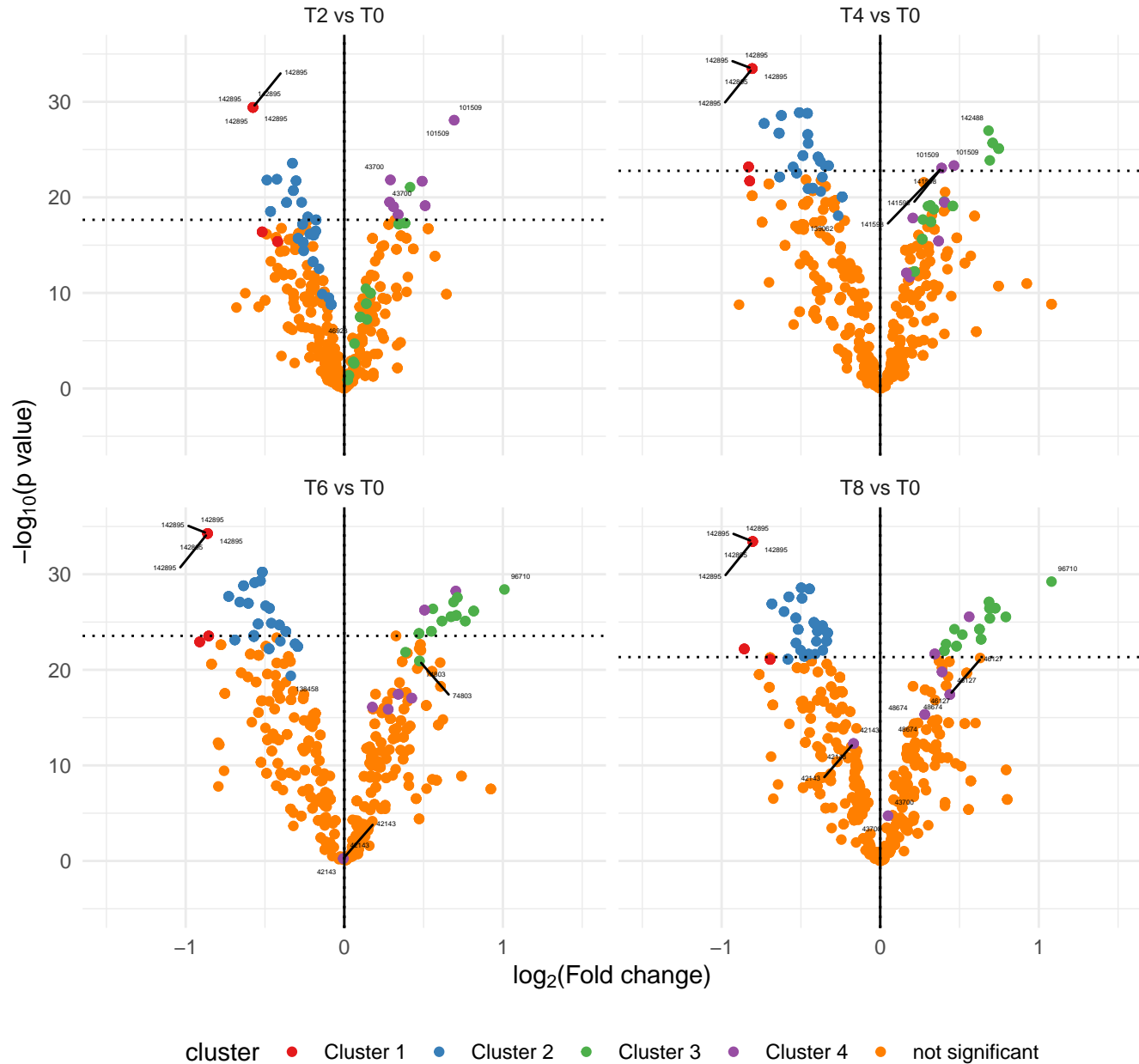
# Nuclear structure



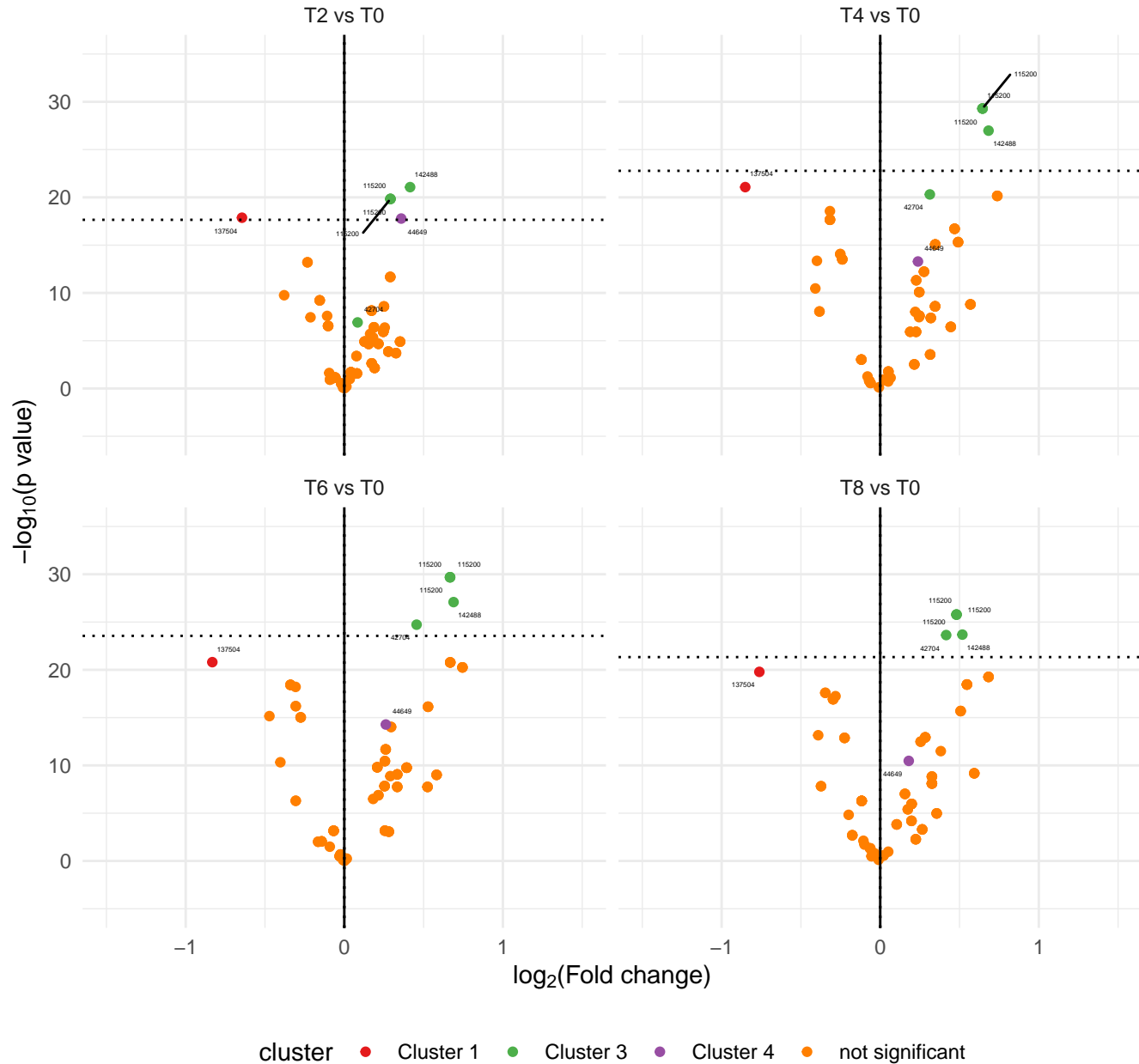
# Nucleotide transport and metabolism



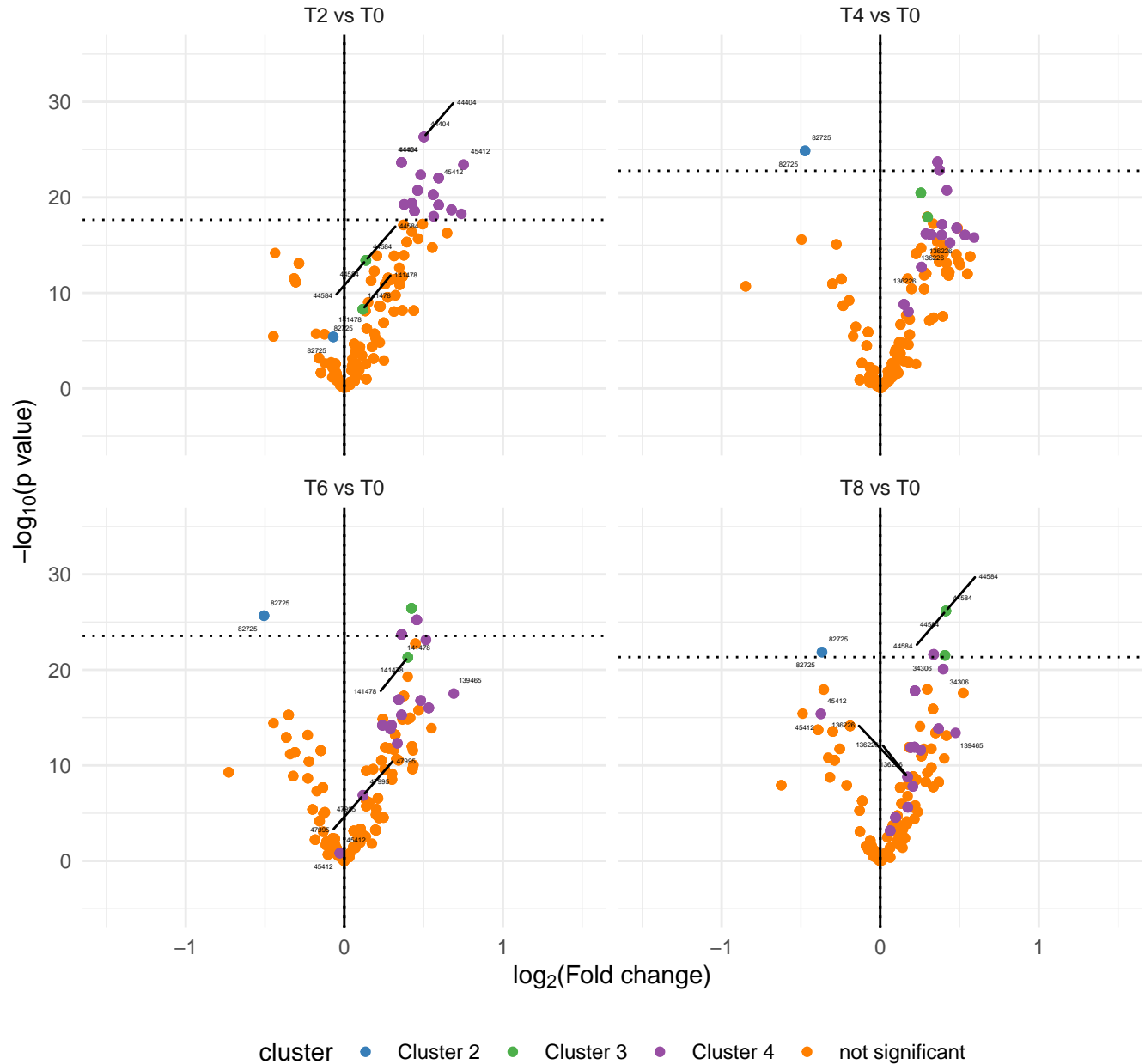
## Posttranslational modification, protein turnover, chaperones



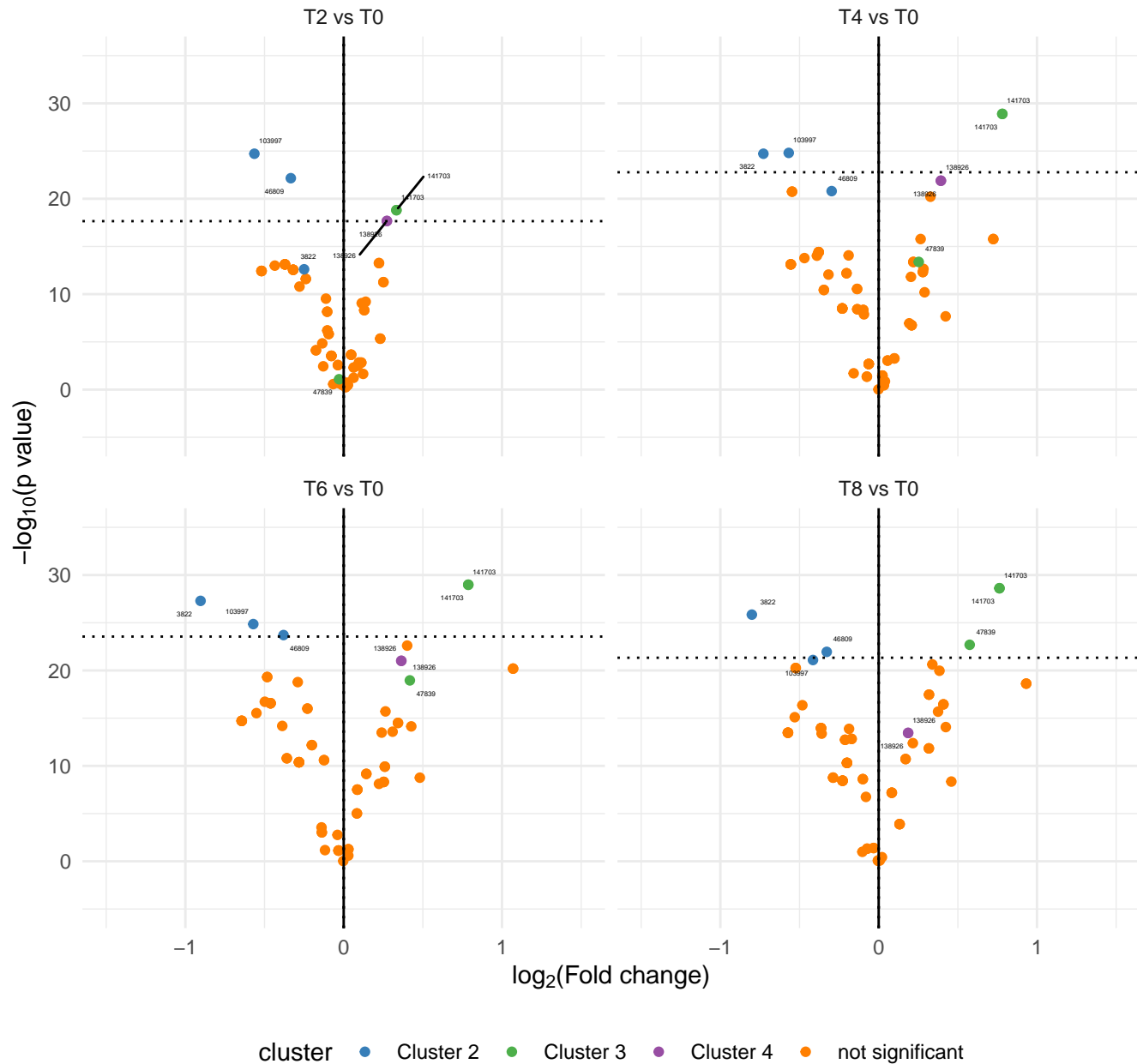
## Replication, recombination and repair



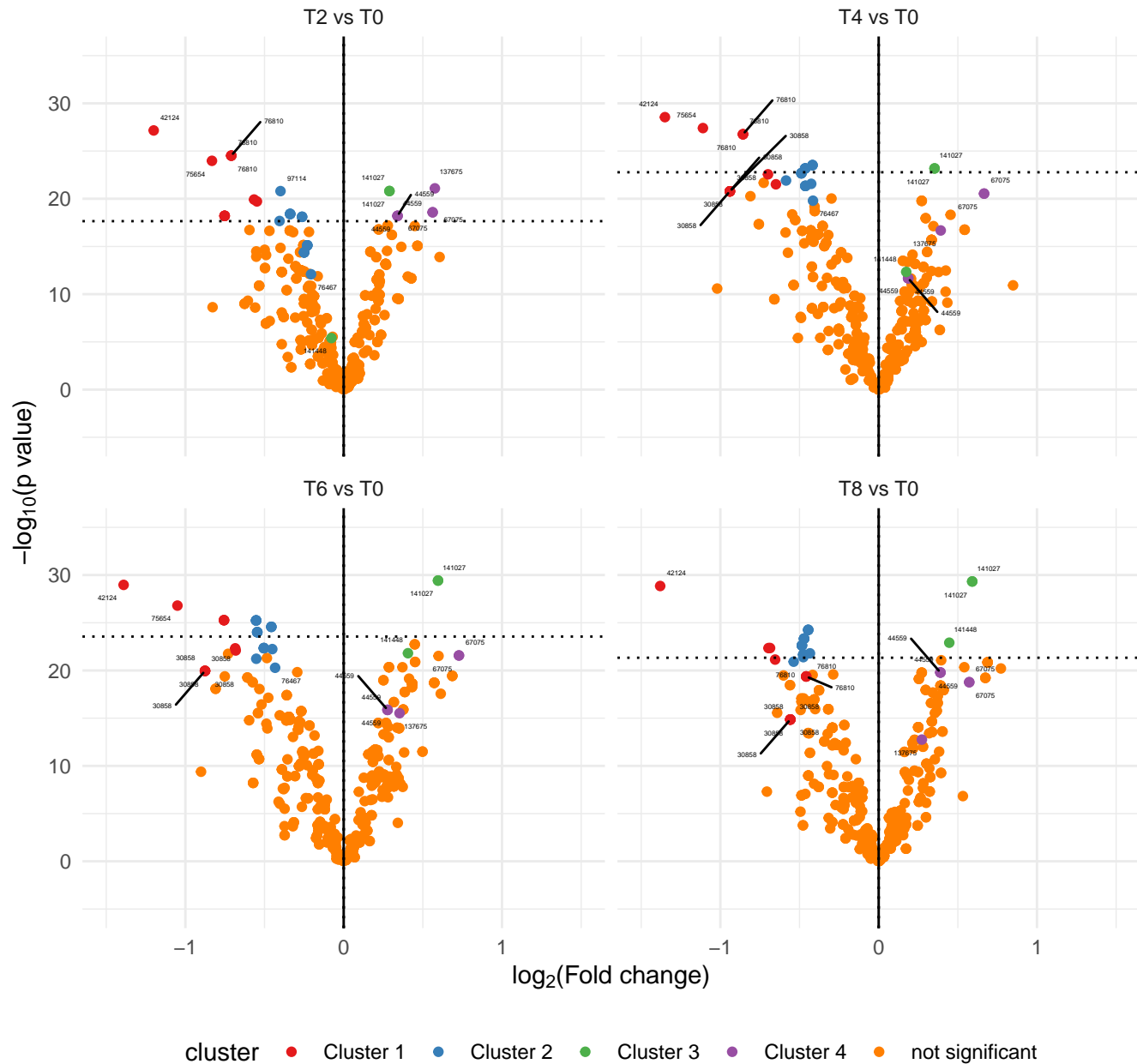
## RNA processing and modification



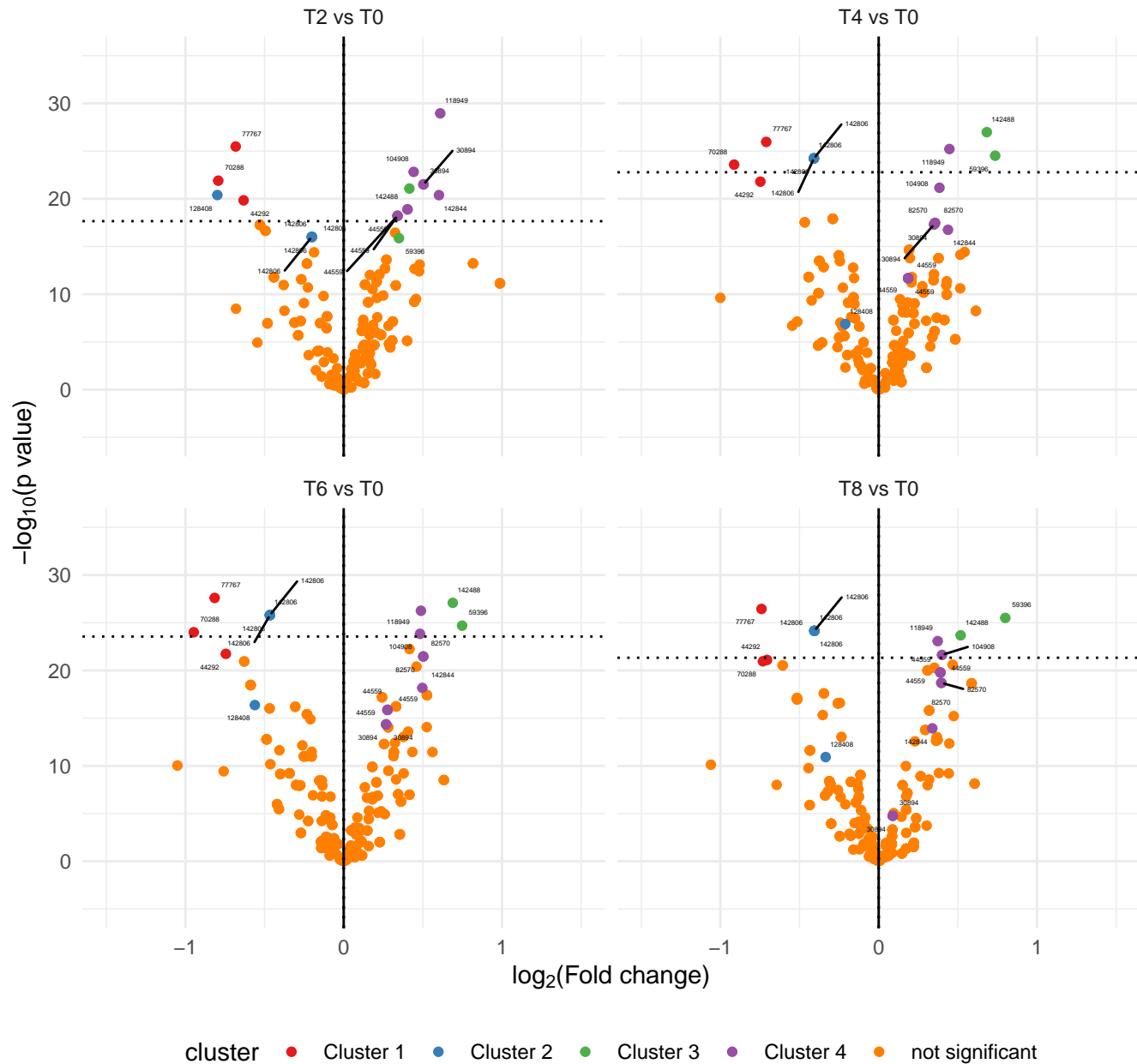
# Secondary metabolites biosynthesis, transport and catabolism



# Signal transduction mechanisms

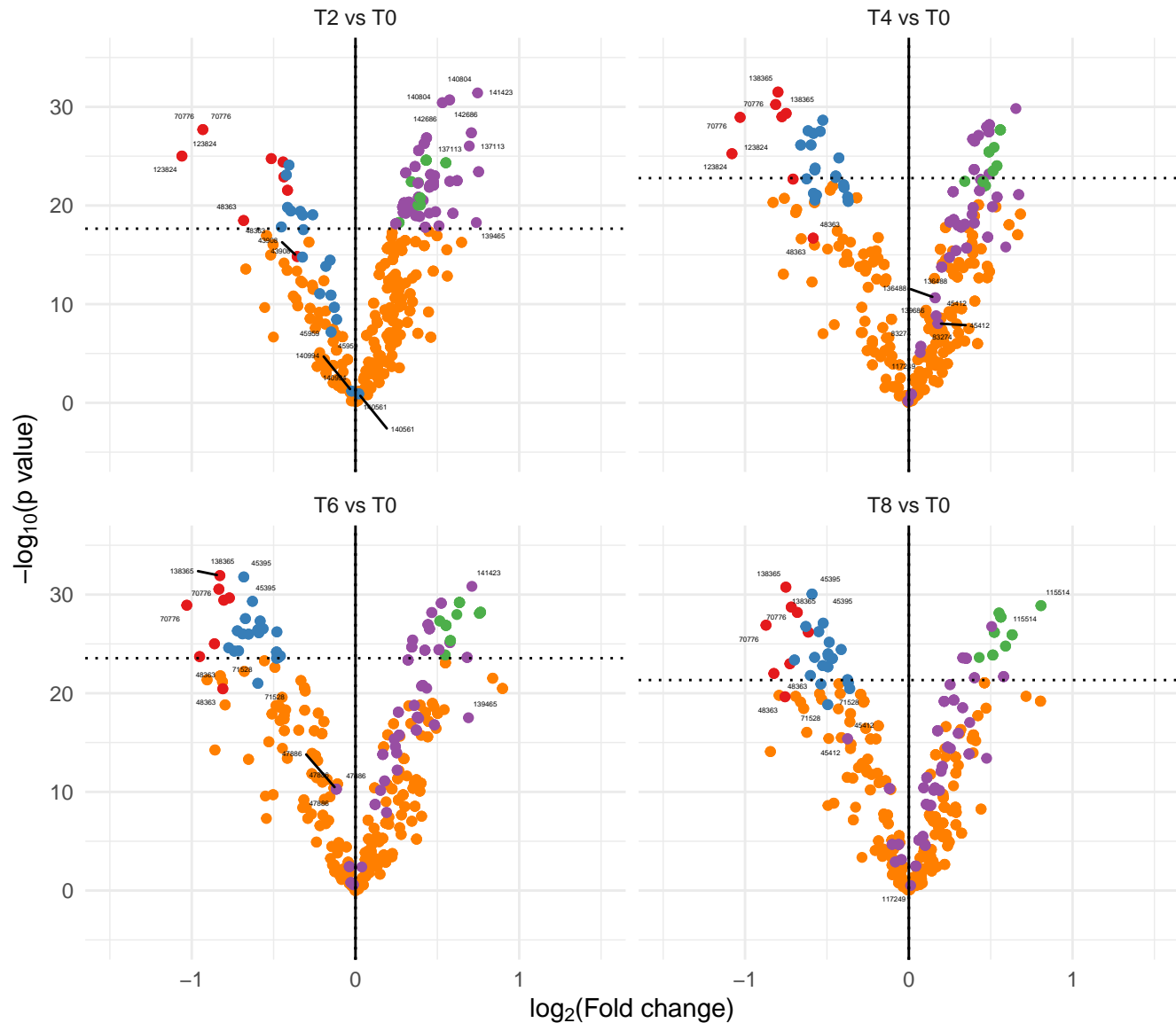


# Transcription



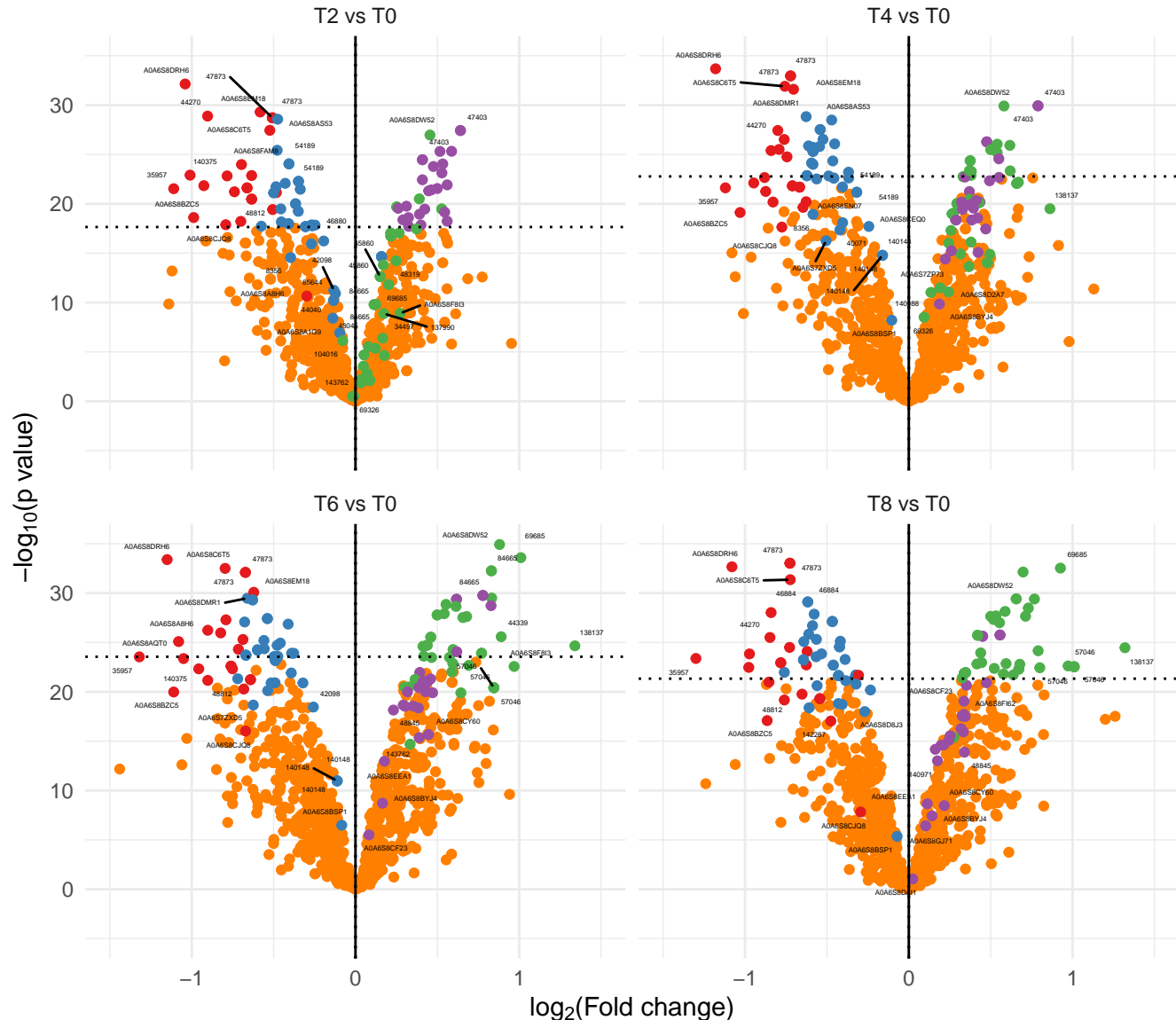


# Translation, ribosomal structure and biogenesis



cluster    ● Cluster 1    ● Cluster 2    ● Cluster 3    ● Cluster 4    ● not significant

# Unknown kogClass



cluster    ● Cluster 1    ● Cluster 2    ● Cluster 3    ● Cluster 4    ● not significant