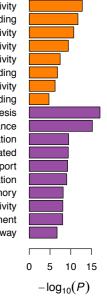
## Genes with ribosome-associated uORFs



Transcription factor activity ATP binding Protein serine/threonine kinase activity Metal ion binding GTPase activator activity Transmembrane signaling receptor activity Protein homodimerization activity Actin binding Rho guanyl-nucleotide exchange factor activity Cytoskeletal protein binding Imaginal disc-derived wing morphogenesis Axon guidance Actin filament organization Regulation of transcription, DNA-templated Transmembrane transport Protein phosphorylation Long-term memory Regulation of GTPase activity Gonad development G-protein coupled receptor signaling pathway

B

15

10

 $-\log_{10}(P)$ 

0

## A Genes without ribosome-associated uORFs

ctural constituent of chitin-based larval cuticle Serine-type endopeptidase activity Electron carrier activity Structural constituent of ribosome Odorant binding Iron ion binding Oxidoreductase activity Glutathione transferase activity DNA-directed 5'-3' RNA polymerase activity Enzyme regulator activity Chromatin assembly or disassembly Multicellular organism reproduction Chitin-based cuticle development Proteolvsis Oxidation-reduction process Translation Glutathione metabolic process Response to pheromone Ribosome biogenesis Regulation of protein kinase activity