

A. Caste-specific gene expression

| | | | | |
|--|----|----|----|----|
| chemical synaptic transmission | * | ** | * | * |
| learning or memory | * | * | * | |
| axon guidance | ** | * | | |
| compound eye development | * | | | * |
| cytoplasmic translation | ** | | | ** |
| central nervous system formation | | * | | |
| negative regulation of glial cell proliferation | | * | | ** |
| translation | ** | | ** | ** |
| Golgi organization | | * | | ** |
| defense response to bacterium | | | ** | |
| mitotic cytokinesis | | | | ** |
| chromatin remodeling | | | | ** |
| chromatin organization | | | | ** |
| histone acetylation | | | | ** |
| endoplasmic reticulum unfolded protein response | | * | | ** |
| intracellular protein transport | | * | | ** |
| protein sumoylation | | | | ** |
| microtubule-based movement | | | | ** |
| protein deubiquitination | | * | | ** |
| syncytial blastoderm mitotic cell cycle | | * | | ** |
| regulation of alternative mRNA splicing, via spliceosome | | | * | ** |
| peptidoglycan recognition protein signaling pathway | * | | | |
| mitochondrion morphogenesis | | * | * | ** |
| protein import into nucleus | | * | ** | ** |
| mitotic sister chromatid segregation | | | | ** |
| protein folding | | * | ** | * |
| transcription by RNA polymerase II | | * | ** | |
| pre-replicative complex assembly involved in nuclear cell cycle DNA replication | | | ** | * |
| cellular response to DNA damage stimulus | | * | * | ** |
| eggshell chorion gene amplification | | * | ** | * |
| mitotic cell cycle | | * | ** | ** |
| transcription initiation from RNA polymerase II promoter | | * | ** | * |
| double-strand break repair via break-induced replication | | * | * | * |
| tRNA processing | * | | ** | * |
| chromosome condensation | | * | * | ** |
| ribosomal small subunit biogenesis | * | * | ** | |
| mRNA export from nucleus | | * | * | ** |
| ribosomal large subunit assembly | * | * | ** | |
| ribosome biogenesis | * | * | ** | * |
| maturation of SSU-rRNA from tricistronic rRNA transcript (SSU-rRNA, 5.8S rRNA, LSU-rRNA) | | * | * | * |
| translational initiation | | * | ** | * |
| mRNA splicing, via spliceosome | ** | * | ** | ** |
| double-strand break repair via homologous recombination | * | | * | ** |
| chromosome organization | * | * | * | ** |
| DNA replication initiation | | * | ** | ** |
| DNA-dependent DNA replication | * | * | ** | * |
| DNA repair | ** | * | ** | ** |
| mitochondrial translation | ** | * | ** | |
| DNA replication | * | ** | ** | ** |
| rRNA processing | ** | ** | ** | ** |

2 4 6 8
Hours post-grafting

B. Caste-specific DNA methylation

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|---|---|---|---|---|
| * | * | * | * | olfactory learning |
| * | * | * | * | medium-term memory |
| * | * | * | * | associative learning |
| * | * | * | * | sensory perception of touch |
| * | * | * | * | positive regulation of cell population proliferation |
| * | * | * | * | pseudocleavage involved in syncytial blastoderm formation |
| * | * | * | * | intra-S DNA damage checkpoint |
| * | * | * | * | cilium movement involved in cell motility |
| | * | * | * | imaginal disc morphogenesis |
| * | * | * | | chemical synaptic transmission |
| | | * | * | phototransduction |
| | | * | * | cilium assembly |
| | | * | * | establishment or maintenance of neuroblast polarity |
| * | * | * | * | sphingolipid metabolic process |

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