

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

*	*	*	*	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

2 4 6 8
Hours post-grafting