

A. Caste-specific DNA methylation

visual behavior	*	*	*	*
regulation of JNK cascade	*	*	*	*
pupariation	*	*	*	
gene silencing by miRNA	*	*	*	
salivary gland development	*	*	*	
microtubule-based process		*	*	*
positive regulation of transcription initiation from RNA polymerase II promoter			*	*
olfactory behavior				*
positive regulation of actin filament polymerization		*	*	
short-term memory			*	*
photoreceptor cell maintenance			*	*
spermatid development		*	*	
regulation of protein stability			*	*
positive regulation of RNA export from nucleus			*	*
oocyte microtubule cytoskeleton polarization			*	
plasma membrane to endosome transport				*
regulation of circadian rhythm	*	*		
locomotor rhythm				*
neurotransmitter secretion		*	*	*
protein processing	*	*		
developmental pigmentation	*	*		
regulation of protein localization				*
nuclear migration				*
protein refolding			*	*
establishment or maintenance of apical/basal cell polarity			*	*
mitochondrial cytochrome c oxidase assembly				*
protein ubiquitination		*	*	*
cellularization			*	*
oogenesis	*	*	*	*
ubiquitin-dependent protein catabolic process		*	*	*
mitotic DNA replication checkpoint	*	*		
peptidyl-threonine phosphorylation				*
rRNA catabolic process	*	*		
actomyosin structure organization				*
	2	4	6	8

Hours post-grafting

B. Caste-specific gene expression

*	*	*	*	chemical synaptic transmission
*	*	*		learning or memory
**	*			axon guidance
*				intracellular signal transduction
*			*	compound eye development
	*			regulation of Toll signaling pathway
**			**	cytoplasmic translation
	*			central nervous system formation
*			*	ubiquitin-dependent protein catabolic process
	*		*	negative regulation of glial cell proliferation
**		*	*	translation
			*	mitotic cytokinesis
			*	chromatin remodeling
			*	chromatin organization
			*	histone acetylation
			*	protein sumoylation
	*	*	**	intracellular protein transport
			**	microtubule-based movement
	*		*	protein deubiquitination
	*		*	syncytial blastoderm mitotic cell cycle
		*	*	regulation of alternative mRNA splicing, via spliceosome
	*	*	*	mitochondrion morphogenesis
	*	*	*	centrosome cycle
	*	*	**	protein import into nucleus
	*	*	*	protein folding
			**	mitotic sister chromatid segregation
	*	*		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
	*	*	*	chromosome condensation
*	*	*	*	ribosome biogenesis
*	*	*	*	ribosomal small subunit biogenesis
	*	*	*	mRNA export from nucleus
*		*	*	tRNA processing
*	*	*		ribosomal large subunit assembly
*	*	*	*	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 repair
*	*	*	*	DNA-dependent DNA replication
**	*	**		mitochondrial translation
*	*	**	*	DNA replication
**	**	**	**	rRNA processing
2	4	6	8	

Hours post-grafting