

WLS Regression

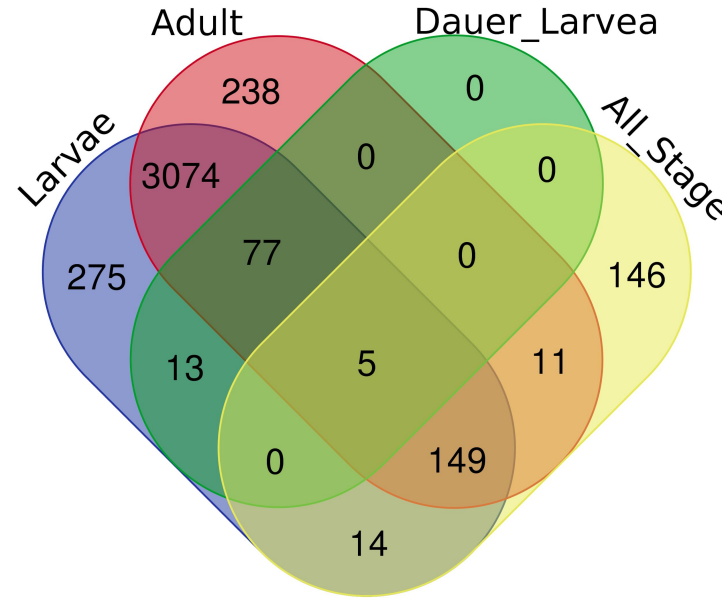
Sample	Pearson Corelation	coef	std error
hermaphrodite, organism, post dauer stage Ce	0.2376867647	-4.1165	0.284
hermaphrodite, organism, L4 larva Ce	0.2281196172	-2.0041	0.17
hermaphrodite, organism, dauer larva Ce	0.2928248384	-1.0374	0.178
hermaphrodite, organism, late cleavage stage embryo Ce	0.3432841122	-0.3639	0.068
hermaphrodite, organism, newly molted young adult hermaphrodite Ce	0.3243311729	-0.0857	0.129
hermaphrodite, organism, proliferating embryo Ce	0.2125023456	0.0628	0.213
hermaphrodite, organism, enclosing embryo Ce	0.3188085239	0.1169	0.083
hermaphrodite, organism, elongating embryo Ce	0.3598104596	0.1695	0.042
hermaphrodite, organism, 3-fold embryo Ce	0.3754411087	0.2836	0.047
hermaphrodite, organism, L1 larva Ce	0.2795741483	0.3762	0.033
hermaphrodite, organism, fully-elongated embryo Ce	0.3897335716	0.42	0.051
hermaphrodite, organism, L3 larva Ce	0.3495400599	0.4858	0.089
hermaphrodite, organism, adult Ce	0.3385791887	0.7757	0.103
hermaphrodite, organism, 4-cell embryo Ce	0.2582421355	0.827	0.046
hermaphrodite, organism, L2d-dauer molt Ce	0.3572073541	0.933	0.06
hermaphrodite, organism, L2 larva Ce	0.3816304921	1.5982	0.087
hermaphrodite, organism, gastrulating embryo Ce	0.3046859335	2.4276	0.19
Prediction	0.5095706496		

From the regression result, life stages include **post dauer**, **L4 larva** and **dauer larva** have a reverse relationship with the average gene expression. It's very possible that there are stage specific genes in these life stages that led to this observation.

Stage Timelines

hermaphrodite, organism, proliferating embryo Ce					
hermaphrodite, organism, gastrulating embryo Ce					
hermaphrodite, organism, 4-cell embryo Ce					
hermaphrodite, organism, 3-fold embryo Ce					
hermaphrodite, organism, late cleavage stage embryo Ce					
hermaphrodite, organism, enclosing embryo Ce					
hermaphrodite, organism, elongating embryo Ce					
hermaphrodite, organism, fully-elongated embryo Ce					
hermaphrodite, organism, L1 larva Ce					
hermaphrodite, organism, L2 larva Ce			hermaphrodite, organism, L2d-dauer molt Ce		
hermaphrodite, organism, L3 larva Ce			hermaphrodite, organism, dauer larva Ce		
			hermaphrodite, organism, post dauer stage Ce		
hermaphrodite, organism, L4 larva Ce					
hermaphrodite, organism, newly molted young adult hermaphrodite Ce					
hermaphrodite, organism, adult Ce					

Venn Diagram of 4 different sets



Spearman Rank Matrix

	Embryo	Larvae	L3_L4	Dauer	Adult
Embryo	1.0000	0.7555	0.7445	0.7351	0.7735
Larvae	0.7555	1.0000	0.7371	0.7317	0.7434
L3_L4	0.7445	0.7371	1.0000	0.8205	0.8541
Dauer	0.7351	0.7317	0.8205	1.0000	0.8401
Adult	0.7735	0.7434	0.8541	0.8401	1.0000

Spearman Correlation Matrix of Five range of life stages.

