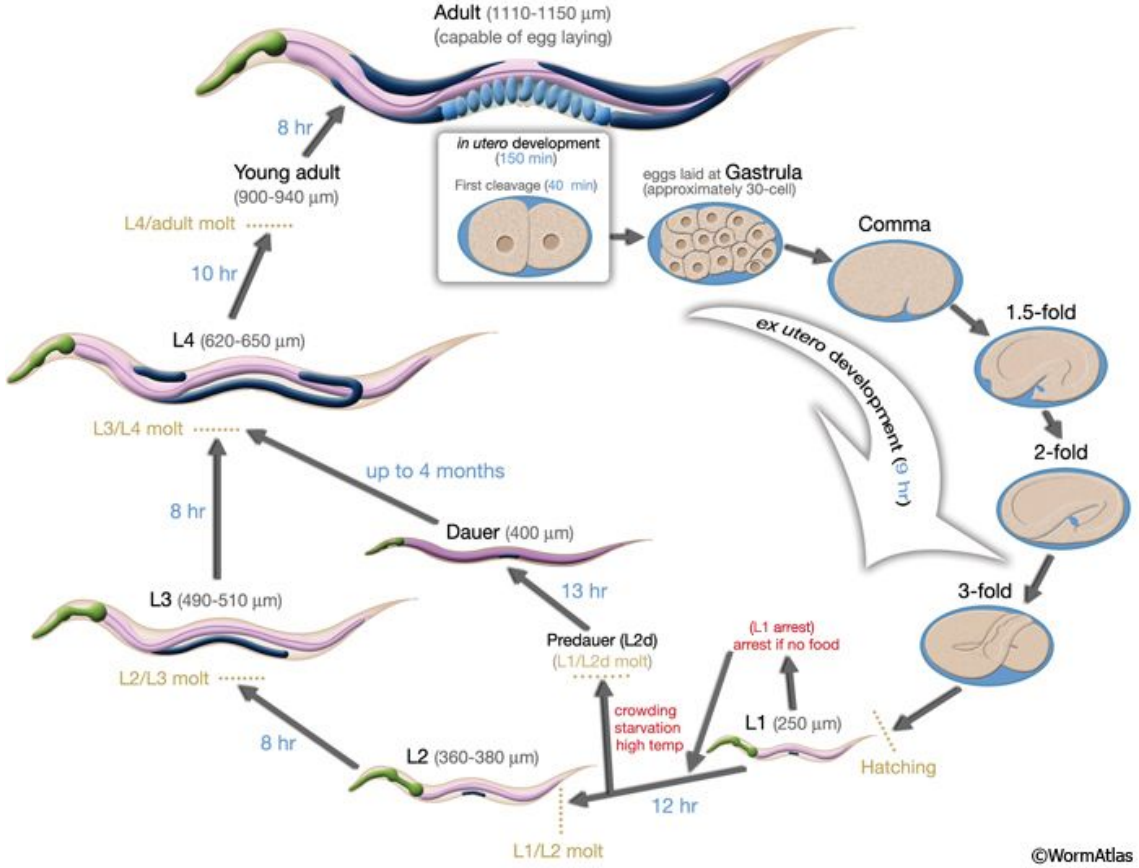
Adult (1110-1150 µm)
(capable of egg laying)
8 hr
Young adult
(900-940 µm)
L4/adult molt
10 hr
L4 (620-650 µm)
L3/L4 molt
8 hr
up to 4 months
Dauer (400 µm)
13 hr
L3 (490-510 µm)
L2/L3 molt
8 hr
L2 (360-380 µm)
L1/L2 molt
Predauer (L2d)
(L1/L2d molt)
crowding
starvation
high temp
12 hr
(L1 arrest)
arrest if no food
L1 (250 µm)
Hatching
in utero development
(150 min)
First cleavage (40 min)
eggs laid at Gastrula
(approximately 30-cell)
ex utero development (9 hr)
Comma
1.5-fold
2-fold
3-fold
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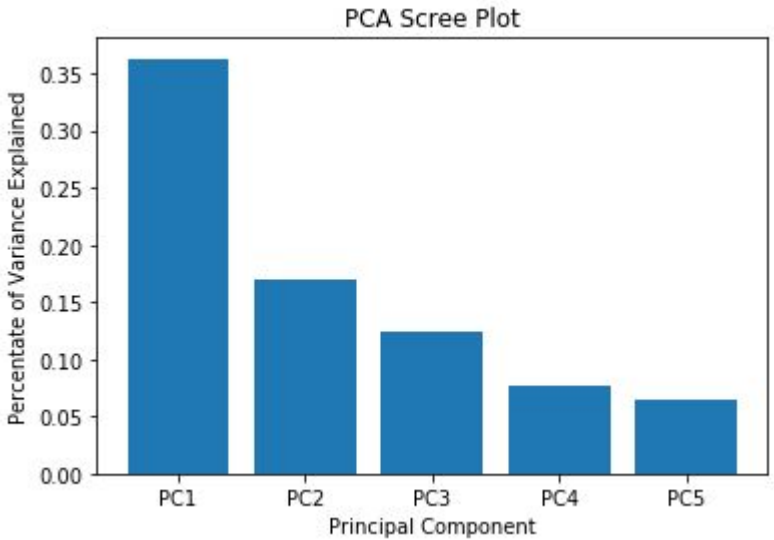
WLS Regression

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.

PCA


PCA Scree Plot
Percentate of Variance Explained
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
PC1
PC2
PC3
PC4
PC5
Principal Component

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	

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.

Venn Diagram of 4 different sets