

Supplementary Table 3. Gene families that are significantly enriched in each t-SNE cluster of DEGs between flight and ground control in Arabidopsis roots or leaves from human-tended VG suborbital spaceflight. Threshold of significant enrichment is FDR Padj < 0.01.

t-SNE cluster	Gene family	Short name	Padj
Cluster 0	None		
Cluster 1	Basic helix-loop-helix (bHLH) gene family	bHLH	8.88E-04
Cluster 2	None		
Cluster 3	Core histone (CH) gene family	CH	4.01E-09
Cluster 4	Glutathione S-transferase (GST) gene family	GST	4.42E-04
	Cytochrome P450 gene family	CYP	3.91E-03
Cluster 5	FAD-binding Berberine (FBBE) gene family	FBBE	7.61E-03
Cluster 6	HSP90 gene family	HSP90	7.08E-04
	Heat shock factor (HSF) gene family	HSF	4.21E-03
Cluster 7	Chlorophyll a/b-binding (LHC) gene family	LHC	1.82E-05
Cluster 8	None		
Cluster 9	Glutathione S-transferase (GST) gene family	GST	1.89E-04
Cluster 10	None		
Cluster 11	Arabidopsis response regulators (ARR) gene family	ARR	8.75E-03
	Dof gene family	Dof	8.75E-03
Cluster 12	None		
Cluster 13	None		
Cluster 14	None		
Cluster 15	None		
Cluster 16	HSP20 gene family	HSP20	3.27E-21
Cluster 17	Heat shock factor (HSF) gene family	HSF	4.97E-05
	Caffeic acid o-methyltransferase (COMT) gene family	COMT	1.60E-03
Cluster 18	TAZ gene family	TAZ	1.04E-04
	CTP synthase (CTPS) gene family	CTPS	1.89E-03
Cluster 19	None		
Cluster 20	None		
Cluster 21	None		
Cluster 22	None		
Cluster 23	None		
Cluster 24	None		
Cluster 25	None		
Cluster 26	None		