

Supplemental File 5.C. DOWN Dataset				
Term_ID	Description	Frequency	Log10 p-value	Representative
GO:0007623	circadian rhythm	0.01%	-0.4559	7623
GO:0008152	metabolic process	82.18%	-3.6198	8152
GO:0009628	response to abiotic stimulus	0.31%	-13.6198	9628
GO:0006979	response to oxidative stress	0.54%	-3.7959	9628
GO:0009607	response to biotic stimulus	0.47%	-0.9208	9628
GO:0006952	defense response	0.57%	-0.5086	9628
GO:0006950	response to stress	4.12%	-8.0315	9628
GO:0042221	response to chemical	1.60%	-5.2291	9628
GO:0009987	cellular process	65.99%	-0.5086	9987
GO:0010876	lipid localization	0.10%	-17.1739	10876
GO:0006869	lipid transport	0.09%	-3.1612	10876
GO:0015979	photosynthesis	0.34%	-25.6198	15979
GO:0048511	rhythmic process	0.02%	-0.4559	48511
GO:0050896	response to stimulus	8.82%	-13.6198	50896
GO:0051179	localization	17.86%	-0.3372	51179
GO:0015977	carbon fixation	0.18%	-4.301	15977
GO:0009657	plastid organization	0.01%	-1.7959	9657
GO:0043933	macromolecular complex subunit organization	1.06%	-1	9657
GO:0022607	cellular component assembly	1.47%	-0.585	9657
GO:0070271	protein complex biogenesis	0.57%	-1.1135	9657
GO:0006461	protein complex assembly	0.56%	-1.1135	9657
GO:0009658	chloroplast organization	0.01%	-0.5086	9657
GO:0065003	macromolecular complex assembly	0.68%	-1.1192	9657
GO:0009812	flavonoid metabolic process	0.01%	-0.3872	9812
GO:0006949	syncytium formation	0.00%	-1.4559	6949
GO:0009791	post-embryonic development	0.05%	-1.4559	6949
GO:0009845	seed germination	0.00%	-0.6021	6949
GO:0044273	sulfur compound catabolic process	0.01%	-1.301	44273
GO:0016143	S-glycoside metabolic process	0.00%	-0.7959	44273
GO:0019684	photosynthesis, light reaction	0.09%	-11.0655	19684
GO:0009773	photosynthetic electron transport in photosystem I	0.00%	-2.699	19684

GO:0042548	regulation of photosynthesis, light reaction	0.01%	-2.1024	19684
GO:0009767	photosynthetic electron transport chain	0.05%	-6.1938	19684
GO:0009765	photosynthesis, light harvesting	0.01%	-3.1308	19684
GO:0019253	reductive pentose-phosphate cycle	0.08%	-2.3468	19684
GO:0043467	regulation of generation of precursor metabolites and energy	0.01%	-1.8539	19684
GO:0010109	regulation of photosynthesis	0.01%	-1.8539	19684
GO:0022900	electron transport chain	1.16%	-4.3565	19684
GO:0019685	photosynthesis, dark reaction	0.08%	-2.2076	19684
GO:0009825	multidimensional cell growth	0.00%	-0.3565	9825
GO:0016265	death	0.28%	-0.7696	16265
GO:0006769	nicotinamide metabolic process	0.00%	-0.6383	6769
GO:0006915	apoptotic process	0.25%	-0.9208	6915
GO:0008219	cell death	0.28%	-0.7696	6915
GO:0012501	programmed cell death	0.27%	-0.8539	6915
GO:0006091	generation of precursor metabolites and energy	3.22%	-7.2596	6091
GO:0043603	cellular amide metabolic process	0.91%	-0.5086	43603
GO:0044262	cellular carbohydrate metabolic process	1.84%	-3.585	44262
GO:0046365	monosaccharide catabolic process	0.55%	-0.9208	44262
GO:0016052	carbohydrate catabolic process	1.35%	-1.9208	44262
GO:0006006	glucose metabolic process	0.74%	-1.2218	44262
GO:0006007	glucose catabolic process	0.40%	-0.9586	44262
GO:0044275	cellular carbohydrate catabolic process	0.23%	-2	44262
GO:0005996	monosaccharide metabolic process	1.21%	-2.2676	44262
GO:0019318	hexose metabolic process	0.98%	-0.9586	44262
GO:0019320	hexose catabolic process	0.45%	-0.9208	44262
GO:0051186	cofactor metabolic process	3.61%	-2.1024	51186
GO:0019682	glyceraldehyde-3-phosphate metabolic process	0.15%	-1.6383	19682

GO:0019748	secondary metabolic process	0.18%	-2.5376	19748
GO:0005975	carbohydrate metabolic process	5.98%	-2.3565	5975
GO:0046148	pigment biosynthetic process	0.45%	-4.2441	46148
GO:0015995	chlorophyll biosynthetic process	0.05%	-2.2676	46148
GO:0042440	pigment metabolic process	0.49%	-4.2441	42440
GO:0006081	cellular aldehyde metabolic process	0.47%	-2.3565	6081
GO:0009813	flavonoid biosynthetic process	0.00%	-0.6021	9813
GO:0009853	photorespiration	0.01%	-1.5528	9853
GO:0006629	lipid metabolic process	3.09%	-3.0915	6629
GO:0006066	alcohol metabolic process	0.58%	-2.5376	6066
GO:0046164	alcohol catabolic process	0.10%	-0.7959	6066
GO:0006779	porphyrin-containing compound biosynthetic process	0.48%	-2.8861	6779
GO:0015994	chlorophyll metabolic process	0.05%	-2.3372	6779
GO:0006778	porphyrin-containing compound metabolic process	0.52%	-2.7696	6779
GO:0033014	tetrapyrrole biosynthetic process	0.81%	-2.5376	6779
GO:0006096	glycolytic process	0.52%	-0.5528	6779
GO:0042398	cellular modified amino acid biosynthetic process	0.71%	-0.3279	6779
GO:0046496	nicotinamide nucleotide metabolic process	0.66%	-0.6383	6779
GO:0006733	oxidoreduction coenzyme metabolic process	0.81%	-0.9208	6779
GO:0051188	cofactor biosynthetic process	2.76%	-2.041	6779
GO:1901663	quinone biosynthetic process	0.29%	-1.1367	6779
GO:0019362	pyridine nucleotide metabolic process	0.67%	-0.4685	6779
GO:1901661	quinone metabolic process	0.29%	-1.1367	6779
GO:0009820	alkaloid metabolic process	0.00%	-1.3468	9820
GO:0043094	cellular metabolic compound salvage	0.37%	-0.8539	43094

GO:0016139	glycoside catabolic process	0.00%	-1.1135	16139
GO:0034641	cellular nitrogen compound metabolic process	33.43%	-7.3372	34641
GO:0055114	oxidation-reduction process	15.04%	-3.585	55114
GO:0042180	cellular ketone metabolic process	0.41%	-2.3565	42180
GO:0009624	response to nematode heterocycle biosynthetic process	0.00%	-0.9208	9624
GO:0018130		16.15%	-3.7696	18130
GO:0044271	cellular nitrogen compound biosynthetic process	15.79%	-2.0223	18130
GO:0006766	vitamin metabolic process	1.32%	-0.4437	6766
GO:0016137	glycoside metabolic process	0.03%	-0.7959	16137
GO:0033013	tetrapyrrole metabolic process	0.84%	-2.585	33013
GO:0046483	heterocycle metabolic process	33.33%	-1.3768	46483
GO:0033036	macromolecule localization cellular modified amino acid metabolic process	1.97%	-1.5528	33036
GO:0006575		0.98%	-0.4318	6575
GO:0009827	plant-type cell wall modification	0.00%	-1.6383	9827
GO:0042547	cell wall modification involved in multidimensional cell growth	0.00%	-1.1367	9827
GO:0042545	cell wall modification	0.02%	-0.4318	9827
GO:0009831	plant-type cell wall modification involved in multidimensional cell growth	0.00%	-1.2291	9827
GO:0009828	plant-type cell wall loosening	0.00%	-1.1192	9827
GO:0009664	plant-type cell wall organization	0.01%	-1.4437	9827
GO:0009063	cellular amino acid catabolic process	0.75%	-1.301	9063
GO:0032787	monocarboxylic acid metabolic process	2.31%	-1.1549	9063
GO:0016054	organic acid catabolic process	1.14%	-0.9208	9063
GO:0046395	carboxylic acid catabolic process	1.14%	-0.9208	9063

GO:0006090	pyruvate metabolic process	0.73%	-0.8239	9063
GO:0044248	cellular catabolic process	7.95%	-1.1135	9063
GO:0009310	amine catabolic process	0.07%	-1.2076	9063
GO:0044106	cellular amine metabolic process	0.48%	-0.3279	9063
GO:0019762	glucosinolate catabolic process	0.00%	-1.1549	19762
GO:0019760	glucosinolate metabolic process	0.00%	-0.7959	19762
GO:0019759	glycosinolate catabolic process	0.00%	-1.1549	19762
GO:0019757	glycosinolate metabolic process	0.00%	-0.7959	19762
GO:0016145	S-glycoside catabolic process	0.00%	-1.1549	19762
GO:0019637	organophosphate metabolic process	11.97%	-0.3098	19637
GO:0046942	carboxylic acid transport	1.35%	-0.3188	46942
GO:0015849	organic acid transport	1.35%	-0.3188	46942
GO:0009416	response to light stimulus	0.08%	-8.6576	9416
GO:0009266	response to temperature stimulus	0.15%	-4.0269	9416
GO:0010218	response to far red light	0.00%	-5.8861	9416
GO:0010114	response to red light	0.00%	-4.4202	9416
GO:0009314	response to radiation	0.09%	-8.2366	9416
GO:0009642	response to light intensity	0.01%	-5.4202	9416
GO:0009644	response to high light intensity	0.00%	-3.9586	9416
GO:0009637	response to blue light	0.01%	-5.6021	9416
GO:0009639	response to red or far red light	0.01%	-1.9586	9416
GO:0009651	response to salt stress	0.01%	-1.7212	9416
GO:0006970	response to osmotic stress	0.03%	-1.8239	9416
GO:0009409	response to cold	0.02%	-3.585	9416
GO:0009719	response to endogenous stimulus	0.11%	-2.0223	9719
GO:0006082	organic acid metabolic process	9.36%	-1.9208	6082
GO:0010035	response to inorganic substance	0.27%	-5.2441	10035
GO:0009753	response to jasmonic acid	0.01%	-1.301	10035
GO:0000302	response to reactive oxygen species	0.22%	-0.5686	10035
GO:0009737	response to abscisic acid	0.01%	-1.5528	10035
GO:0009739	response to gibberellin	0.00%	-1.8239	10035

GO:0009725	response to hormone	0.08%	-1.4815	10035
GO:0009723	response to ethylene	0.01%	-0.3098	10035
GO:0009269	response to desiccation	0.00%	-0.6021	10035
GO:0046686	response to cadmium ion	0.00%	-2.0223	10035
GO:0010038	response to metal ion	0.07%	-2.284	10035
GO:0009414	response to water deprivation	0.01%	-1.6021	10035
GO:0009415	response to water	0.01%	-1.6778	10035
GO:0010033	response to organic substance	0.29%	-0.7959	10035
GO:0008610	lipid biosynthetic process	2.21%	-2.3188	8610
GO:0006775	fat-soluble vitamin metabolic process	0.00%	-1.1135	8610
GO:0006520	cellular amino acid metabolic process	6.44%	-0.5528	8610
GO:0008299	isoprenoid biosynthetic process	0.46%	-2.0555	8610
GO:0009240	isopentenyl diphosphate biosynthetic process	0.17%	-1.301	8610
GO:0019288	isopentenyl diphosphate biosynthetic process, methylerythritol 4-phosphate pathway	0.15%	-1.6383	8610
GO:0016053	organic acid biosynthetic process	4.67%	-0.699	8610
GO:0043436	oxoacid metabolic process	9.21%	-1.9208	8610
GO:0046394	carboxylic acid biosynthetic process	4.62%	-0.699	8610
GO:0019752	carboxylic acid metabolic process	9.04%	-1.9208	8610
GO:0044255	cellular lipid metabolic process	2.58%	-0.9208	8610
GO:0006631	fatty acid metabolic process	0.87%	-0.4318	8610
GO:0006633	fatty acid biosynthetic process	0.63%	-0.699	8610
GO:0016108	tetraterpenoid metabolic process	0.04%	-1.0555	8610
GO:0016109	tetraterpenoid biosynthetic process	0.04%	-1.4559	8610
GO:0016116	carotenoid metabolic process	0.04%	-1.0555	8610
GO:0016114	terpenoid biosynthetic process	0.28%	-0.699	8610
GO:0016117	carotenoid biosynthetic process	0.04%	-1.4559	8610
GO:0009110	vitamin biosynthetic process	1.22%	-1.4559	8610

GO:0046490	isopentenyl diphosphate metabolic process	0.17%	-1.301	8610
GO:0042362	fat-soluble vitamin biosynthetic process	0.00%	-1.1135	8610
GO:0006720	isoprenoid metabolic process	0.47%	-1.9208	8610
GO:0006721	terpenoid metabolic process	0.28%	-0.6576	8610
GO:0042214	terpene metabolic process	0.00%	-0.7696	8610