

Table S5: Gene ontology (GO) terms for the 8,966 inductive genes identified

GO term	Ontology	Description	Number	P-value	FDR
Up					
GO:0003824	F	Catalytic activity	1766	9.50E-38	1.70E-34
GO:0044710	P	Single-organism metabolic process	692	4.90E-31	1.50E-27
GO:0044699	P	Single-organism process	874	4.90E-27	7.40E-24
GO:0016491	F	Oxidoreductase activity	453	7.30E-25	6.70E-22
GO:0009415	P	Response to water	37	1.10E-24	8.60E-22
GO:0001101	P	Response to acid chemical	37	1.10E-24	8.60E-22
GO:1901700	P	Response to oxygen-containing compound	42	4.60E-23	2.80E-20
GO:0010035	P	Response to inorganic substance	41	7.10E-23	3.60E-20
GO:0048037	F	Cofactor binding	179	1.70E-22	1.00E-19
GO:0055114	P	Oxidation-reduction process	430	4.10E-22	1.80E-19
GO:0044281	P	Small molecule metabolic process	239	1.20E-17	4.40E-15
GO:0009628	P	Response to abiotic stimulus	37	1.00E-16	3.40E-14
GO:0006082	P	Organic acid metabolic process	170	1.90E-16	5.70E-14
GO:0050662	F	Coenzyme binding	120	7.10E-15	3.20E-12
GO:0008152	P	Metabolic process	1617	1.80E-14	5.00E-12
GO:0043436	P	Oxoacid metabolic process	143	6.90E-13	1.70E-10
GO:0005975	P	Carbohydrate metabolic process	207	2.30E-12	5.30E-10
GO:0030170	F	Pyridoxal phosphate binding	49	2.50E-12	9.00E-10
GO:0019752	P	Carboxylic acid metabolic process	140	2.50E-12	5.30E-10
GO:0016614	F	Oxidoreductase activity, acting on CH-OH group of donors	70	1.80E-10	5.50E-08

(Continued)

Table S5 (continued)

GO term	Ontology	Description	Number	P-value	FDR
Down					
GO:0003824	F	Catalytic activity	1592	2.10E-53	3.70E-50
GO:0015979	P	Photosynthesis	106	4.60E-48	1.20E-44
GO:0008152	P	Metabolic process	1566	2.70E-46	3.40E-43
GO:0034357	C	Photosynthetic membrane	91	7.40E-40	2.70E-37
GO:0009579	C	Thylakoid	94	2.30E-39	2.80E-37
GO:0044436	C	Thylakoid part	94	2.30E-39	2.80E-37
GO:0009521	C	Photosystem	88	7.80E-39	7.10E-37
GO:0009654	C	Photosystem II oxygen evolving complex	42	1.30E-28	8.50E-27
GO:0042651	C	Thylakoid membrane	45	1.40E-28	8.50E-27
GO:0044710	P	Single-organism metabolic process	587	7.20E-27	6.10E-24
GO:1990204	C	Oxidoreductase complex	45	3.00E-24	1.50E-22
GO:0006793	P	Phosphorus metabolic process	456	5.50E-23	3.50E-20
GO:0009523	C	Photosystem II	57	4.60E-22	2.10E-20
GO:0006796	P	Phosphate-containing compound metabolic process	451	4.90E-22	2.50E-19
GO:0019898	C	Extrinsic component of membrane	33	9.10E-22	3.70E-20
GO:0009522	C	Photosystem I	31	1.60E-21	5.80E-20
GO:0098796	C	Membrane protein complex	107	4.80E-21	1.60E-19
GO:0044699	P	Single-organism process	724	2.80E-20	1.20E-17
GO:0016310	P	Phosphorylation	392	3.50E-20	1.30E-17
GO:0016020	C	Membrane	424	3.40E-18	1.00E-16