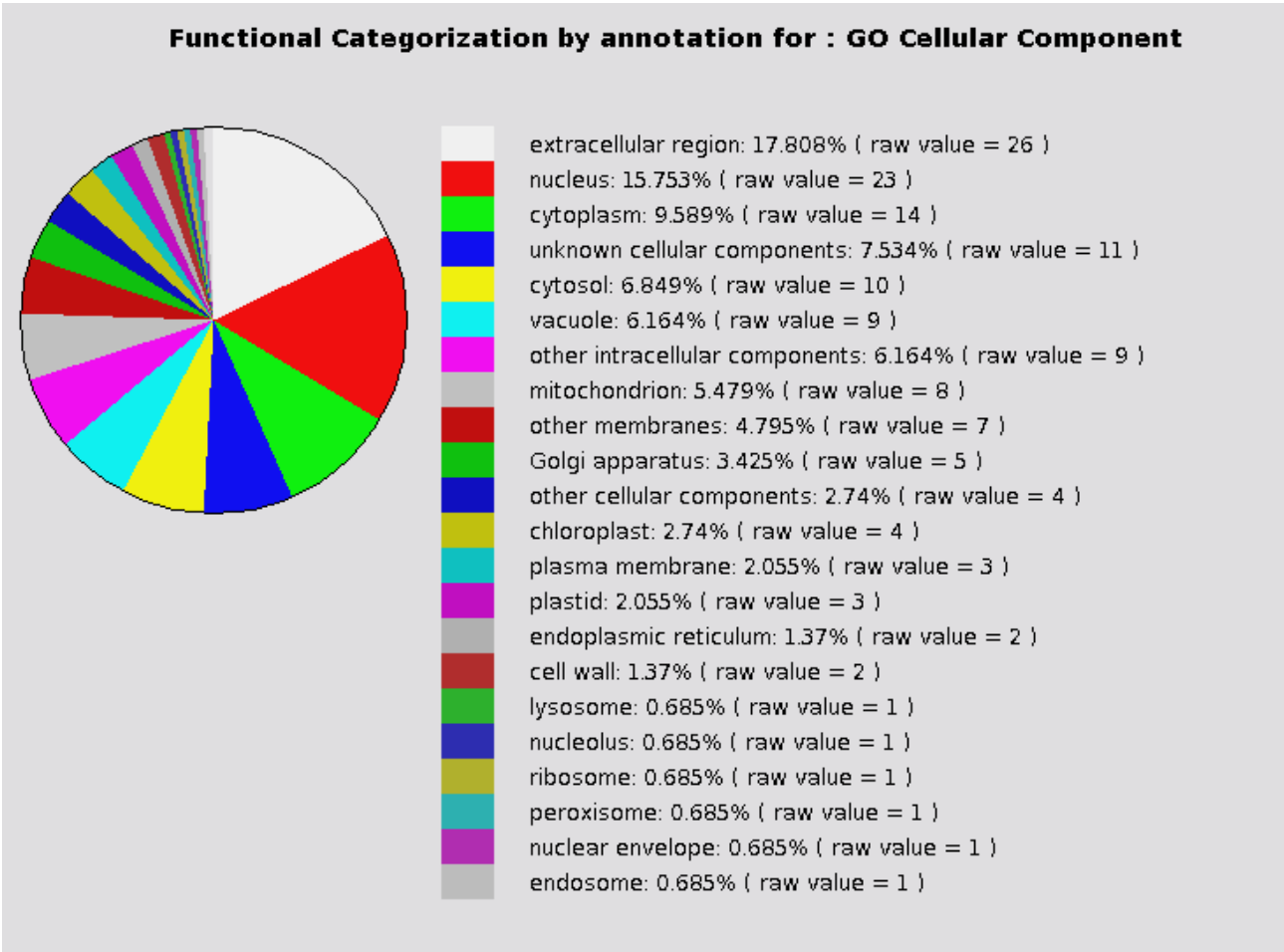
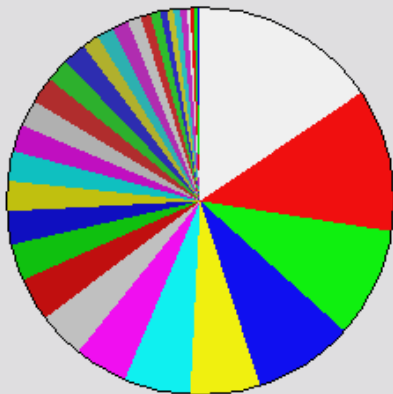


# Supplementary Figure S3 Functional Categorization

## UPREGULATED GENES

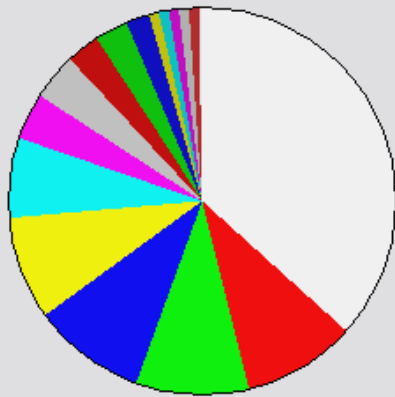


## Functional Categorization by annotation for : GO Biological Process



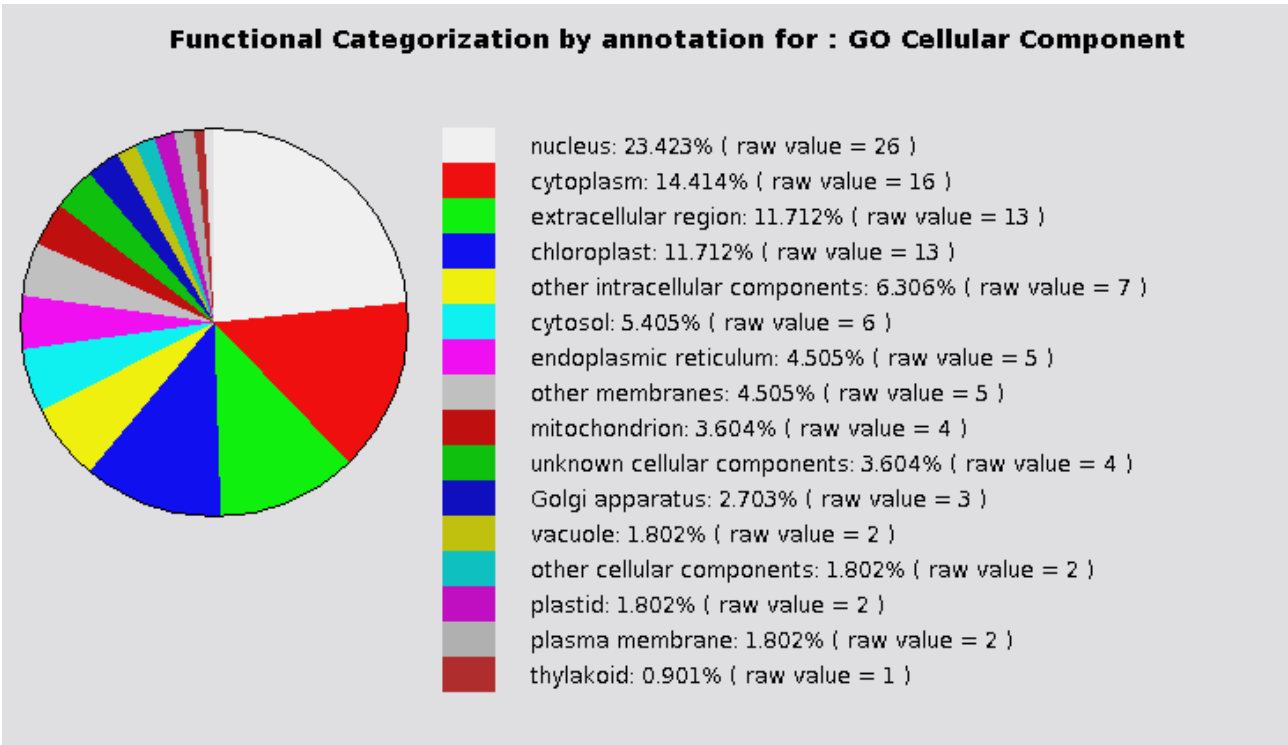
other cellular processes:	15.645% ( raw value = 74 )
other metabolic processes:	12.051% ( raw value = 57 )
response to stress:	9.302% ( raw value = 44 )
response to chemical:	8.457% ( raw value = 40 )
biosynthetic process:	5.92% ( raw value = 28 )
unknown biological processes:	5.497% ( raw value = 26 )
response to external stimulus:	4.44% ( raw value = 21 )
response to biotic stimulus:	4.017% ( raw value = 19 )
response to endogenous stimulus:	3.594% ( raw value = 17 )
response to abiotic stimulus:	3.171% ( raw value = 15 )
catabolic process:	2.748% ( raw value = 13 )
signal transduction:	2.537% ( raw value = 12 )
protein metabolic process:	2.537% ( raw value = 12 )
reproduction:	2.114% ( raw value = 10 )
anatomical structure development:	2.114% ( raw value = 10 )
cellular component organization:	2.114% ( raw value = 10 )
transport:	1.903% ( raw value = 9 )
multicellular organism development:	1.903% ( raw value = 9 )
nucleobase-containing compound metabolic process:	1.48% ( raw value = 7 )
carbohydrate metabolic process:	1.48% ( raw value = 7 )
secondary metabolic process:	1.268% ( raw value = 6 )
post-embryonic development:	1.057% ( raw value = 5 )
cell communication:	0.846% ( raw value = 4 )
lipid metabolic process:	0.846% ( raw value = 4 )
other biological processes:	0.634% ( raw value = 3 )
growth:	0.634% ( raw value = 3 )
cell growth:	0.423% ( raw value = 2 )
cell differentiation:	0.423% ( raw value = 2 )
translation:	0.211% ( raw value = 1 )
response to light stimulus:	0.211% ( raw value = 1 )
generation of precursor metabolites and energy:	0.211% ( raw value = 1 )
tropism:	0.211% ( raw value = 1 )

### Functional Categorization by annotation for : GO Molecular Function

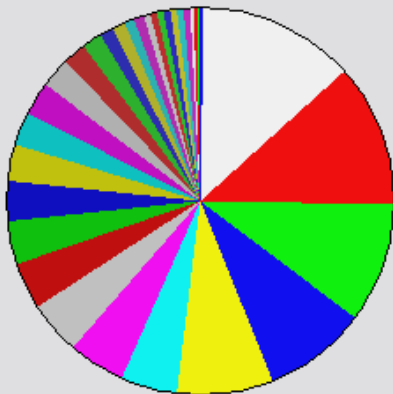


	unknown molecular functions: 36.792% ( raw value = 39 )
	hydrolase activity: 9.434% ( raw value = 10 )
	protein binding: 9.434% ( raw value = 10 )
	transferase activity: 9.434% ( raw value = 10 )
	catalytic activity: 8.491% ( raw value = 9 )
	transporter activity: 6.604% ( raw value = 7 )
	RNA binding: 3.774% ( raw value = 4 )
	other binding: 3.774% ( raw value = 4 )
	enzyme regulator activity: 2.83% ( raw value = 3 )
	other molecular functions: 2.83% ( raw value = 3 )
	DNA binding: 1.887% ( raw value = 2 )
	DNA-binding transcription factor activity: 0.943% ( raw value = 1 )
	nucleotide binding: 0.943% ( raw value = 1 )
	lipid binding: 0.943% ( raw value = 1 )
	structural molecule activity: 0.943% ( raw value = 1 )
	nucleic acid binding: 0.943% ( raw value = 1 )

# DOWNREGULATED GENES

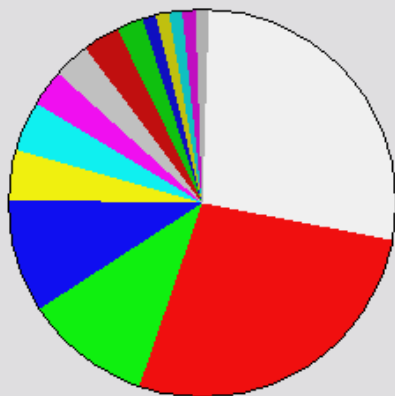


## Functional Categorization by annotation for : GO Biological Process



	other cellular processes: 13.216% ( raw value = 60 )
	response to stress: 11.894% ( raw value = 54 )
	response to chemical: 10.132% ( raw value = 46 )
	other metabolic processes: 8.59% ( raw value = 39 )
	response to abiotic stimulus: 7.93% ( raw value = 36 )
	response to endogenous stimulus: 4.846% ( raw value = 22 )
	anatomical structure development: 4.626% ( raw value = 21 )
	biosynthetic process: 4.405% ( raw value = 20 )
	multicellular organism development: 3.965% ( raw value = 18 )
	reproduction: 3.744% ( raw value = 17 )
	post-embryonic development: 3.304% ( raw value = 15 )
	lipid metabolic process: 3.084% ( raw value = 14 )
	response to external stimulus: 2.863% ( raw value = 13 )
	response to biotic stimulus: 2.643% ( raw value = 12 )
	unknown biological processes: 2.423% ( raw value = 11 )
	nucleobase-containing compound metabolic process: 1.982% ( raw value = 9 )
	signal transduction: 1.542% ( raw value = 7 )
	cell communication: 1.101% ( raw value = 5 )
	catabolic process: 1.101% ( raw value = 5 )
	transport: 0.881% ( raw value = 4 )
	response to light stimulus: 0.881% ( raw value = 4 )
	pollination: 0.661% ( raw value = 3 )
	embryo development: 0.661% ( raw value = 3 )
	cellular component organization: 0.661% ( raw value = 3 )
	other biological processes: 0.661% ( raw value = 3 )
	secondary metabolic process: 0.441% ( raw value = 2 )
	cell growth: 0.441% ( raw value = 2 )
	growth: 0.441% ( raw value = 2 )
	tropism: 0.22% ( raw value = 1 )
	protein metabolic process: 0.22% ( raw value = 1 )
	cell differentiation: 0.22% ( raw value = 1 )
	cell death: 0.22% ( raw value = 1 )

### Functional Categorization by annotation for : GO Molecular Function



unknown molecular functions:	28.125% ( raw value = 27 )
catalytic activity:	27.083% ( raw value = 26 )
transferase activity:	10.417% ( raw value = 10 )
protein binding:	9.375% ( raw value = 9 )
hydrolase activity:	4.167% ( raw value = 4 )
kinase activity:	4.167% ( raw value = 4 )
DNA binding:	3.125% ( raw value = 3 )
other binding:	3.125% ( raw value = 3 )
other molecular functions:	3.125% ( raw value = 3 )
nucleic acid binding:	2.083% ( raw value = 2 )
signaling receptor activity:	1.042% ( raw value = 1 )
RNA binding:	1.042% ( raw value = 1 )
DNA-binding transcription factor activity:	1.042% ( raw value = 1 )
chromatin binding:	1.042% ( raw value = 1 )
lipid binding:	1.042% ( raw value = 1 )