

# Fluoxetine Meta Analysis

2-7-2024

# Fluoxetine Expression Dataset Selection Steps

SSRI OR "selective serotonin reuptake inhibitor" OR fluoxetine	
	1958
Filter Expressing profiling by array OR Expression profiling by high throughput sequencing	
	100
Filter Series Entry type	
	97
Filter Homo sapiens OR Mus musculus OR Rattus norvegicus	
	84
Send to file and filter entries in text editor	
Filter SuperSeries	
	74
Filter by title/abstract (fluoxetine treatment or relevant cell type)	
	26
Filter by sample number	
	20

Table1 (1/5)

GEO Series Accession Number	Publication(s) (PMID)	GEO Series Title	Contributors	Inclusion or Exclusion Criteria
GSE224683	36932057	Transcriptomic profiling and electrophysiological analysis from microtransplanted synaptic membranes	Vawter M. P. et al.	3 - No fluoxetine treatment
GSE197622	36056172	Integrative multi-omics landscape of fluoxetine action across 27 brain regions (single cell profiling for 2 regions)	Arul Rayan N. et al.	2 - Single cell profiling
GSE194289	36056172	Integrative multi-omics landscape of fluoxetine action across 27 brain regions [bulk RNA-seq]	Arul Rayan N. et al.	<b>Included</b>
GSE203344	36030255	Brain transcriptome analysis of Arid1b heterozygote mutation and long-lasting effects of early chronic fluoxetine treatment for mutant mice	Kim E. et al.	4 - Superseries
GSE203343	36030255	Prefrontal cortex transcriptome of Arid1b heterozygote mutation mice and drug treated-mice age of postnatal day 120	Kim E. et al.	1 - Postnatal
GSE189653	36030255	Brain transcriptome analysis of Arid1b heterozygote mutation and long-lasting effects of early chronic fluoxetine treatment for mutant mice [RNA-Seq]	Kim E. et al.	1 - Postnatal
GSE202217	N/A	Neurodevelopmental ATM deficiency affects glutamatergic transmission through KCC2-KARs expression in the hippocampus but not in the cortex Modulation of behavioral and hippocampal transcriptomic responses in rat prolonged chronic unpredictable stress model by fluoxetine, eicosapentaenoic acid and lipopolysaccharide	Focchi E. et al.	3 - No fluoxetine treatment
GSE205325	36460699		Demin K. A. et al. Chottekalapanda R. U. et al.	<b>Included</b>
GSE202172	31431686	Translatome profiling of cortical layer5a neurons using S100a10 bacTRAP mice		<b>Included</b>
GSE200209	35620287	Antidepressants fluoxetine mediates endoplasmic reticulum stress and autophagy of Non-small cell lung cancer cells through ATF4-AKT-mTOR signaling pathway Altered serotonergic circuitry in SSRI-resistant major depressive disorder patient-derived neurons	Shao S. et al.	1,2 - Lung cancer
GSE126512	N/A		Vandodaria K. C. et al.	3 - No fluoxetine treatment
GSE188845	35281892	Impact of fluoxetine treatment and folic acid supplementation on the mammary gland transcriptome during peak lactation	Hernandez L. et al.	1,2 - Mammary gland, lactation
GSE158674	34731610	RNA-sequencing Analysis of GBM Neurosphere Cells with Fluoxetine or DMSO treatment	Bi J. et al.	1,2 - Cancer
GSE174409	34380600 35347109	Transcriptional alterations in dorsolateral prefrontal cortex and nucleus accumbens implicate neuroinflammation and synaptic remodeling in opioid use disorder Effects of five developmental neurotoxicants on neuronal differentiation of human embryonic stem cell derived neural progenitors	Logan R. et al. de Leeuw V. C. et al.	3 - No fluoxetine treatment 1 - Neural development

Table1 (2/5)

GEO Series Accession Number	Publication(s) (PMID)	GEO Series Title	Contributors	Inclusion or Exclusion Criteria
GSE160310	34006945	In-depth transcriptomic analyses investigating molecular mechanisms underlying diabetic retinopathy	Becker K. et al.	4 - Superseries
GSE160306	34006945	In-depth transcriptomic analyses investigating molecular mechanisms underlying diabetic retinopathy (totalRNA)	Becker K. et al.	1,2 - Retinopathy
GSE153836	33636252	Effects of fluoxetine and venlafaxine in the mouse neural embryonic stem cell test	Pennings J. et al.	1 - Neural development
GSE158377	N/A	Apigenin as a Candidate Prenatal Treatment for Trisomy 21: Effects in Human Amniocytes and the Ts1Cje Mouse Model [Human]	Guedj F. et al.	3 - No fluoxetine treatment
GSE158376	N/A	Apigenin as a Candidate Prenatal Treatment for Trisomy 21: Effects in Human Amniocytes and the Ts1Cje Mouse Model [Mouse]	Guedj F. et al.	3 - No fluoxetine treatment
GSE150431	32681022	Reduced Brd1 expression leads to reversible depression-like behaviors and gene-expression changes in female mice [amygdala]	Rajkumar A. et al.	<b>Included</b>
GSE150265	32681022	Reduced Brd1 expression leads to reversible depression-like behaviors and gene-expression changes in female mice	Rajkumar A. et al.	4 - Superseries
GSE150264	32681022	Reduced Brd1 expression leads to reversible depression-like behaviors and gene-expression changes in female mice [anterior cingulate cortex (aCC)]	Rajkumar A. et al.	3 - No fluoxetine treatment
GSE150028	32681022	Reduced Brd1 expression leads to reversible depression-like behaviors and gene-expression changes in female mice [Striatum (CPu)]	Anto R. et al.	3 - No fluoxetine treatment
GSE140599	32762937	Hippocampal Gene Expression in bred High Responder (bHR) vs. bred Low Responder (bLR) Rats	Hagenauer M. H. et al.	4 - Superseries
GSE140287	32762937	Hippocampal Gene Expression in bred High Responder (bHR) vs. bred Low Responder (bLR) Rats: RNA-Seq Data from Generation F43	Hagenauer M. H. et al.	3 - No fluoxetine treatment
GSE144219	32119089	Rx-TGx: Toxicogenomic Study Of Pharmaceuticals Using RNA-Seq	Podtelezhnikov A. A. et al.	1,2 - Liver toxicity
GSE128387	N/A	Expression data from children and adolescents treated with Fluoxetine	Torres T. et al.	<b>Included</b>
GSE125664	30700803	Serotonin-induced hyperactivity in SSRI-resistant major depressive disorder patient-derived neurons	Vandodaria K. C. et al.	3 - No fluoxetine treatment
GSE121825	<a href="http://dx.doi.org/10.1101/587709">http://dx.doi.org/10.1101/587709</a>	Identification of the genes regulated by the 5-HT2B serotonin receptor agonist BW723C86 in human M-CSF-primed monocyte-derived macrophages	Corbi Lopez A. L. et al.	3 - No fluoxetine treatment
GSE88794	31238007	Transcriptome as marker for nutrition-related health: added value of time course analyses during challenge tests before and after energy restriction	van Bussel I. P. et al.	3 - No fluoxetine treatment

Table1 (3/5)

GEO Series Accession Number	Publication(s) (PMID)	GEO Series Title	Contributors	Inclusion or Exclusion Criteria
GSE115614	31442236	Treatment with antidepressant drugs in a rat model of Traumatic Brain Injury	Hellmich H. et al.	1 - Traumatic brain injury
GSE129359	30967529	Antidepressants affect gut microbiota and Ruminococcus flavefaciens is able to abolish their effects on depressive-like behavior	Lukic I. et al.	3 - No fluoxetine treatment
GSE118670	30772953	Gene expression microarray analysis on the medial prefrontal cortex and dentate gyrus of wild-type mice	Hagihara H. et al.	4 - Superseries
GSE118669	36414974	Gene expression microarray analysis on the dentate gyrus of mice chronically treated with fluoxetine	Hagihara H. et al.	<b>Included</b>
GSE118668	30772953	Gene expression microarray analysis on the medial prefrontal cortex of mice chronically treated with fluoxetine	Hagihara H. et al.	<b>Included</b>
GSE110256	29901742	Transcriptomic RNAseq drug screen in cerebrocortical cultures; towards novel neurogenetic disease therapies.	Hadwen J. A. et al.	5 - Small sample size
GSE118481	34208365	Gene array of laser capture microdissectioned human diabetic vs non-diabetic plaque macrophages	Chai J. T. et al.	3 - No fluoxetine treatment
GSE111491	N/A	Prenatal selective serotonin reuptake inhibitor (SSRI) exposure induces working memory and social recognition deficits by disrupting inhibitory synaptic networks in male mice	Yu W. et al.	5 - Small sample size
GSE111362	25451292	Perinatal paroxetine exposure in Selectively-bred Low Responder rats	Glover M. et al.	3 - No fluoxetine treatment
GSE109445	N/A	RNA sequencing analysis of gene expression in rat hippocampus exposed to chronic stress and albiforin treatment	Cui Y. et al.	<b>Included</b>
GSE85333	29377288	Transcriptional effects of anti-inflammatory or anti-depressant drugs on primary human macrophages inflammatory response	Regan T. et al.	3 - No fluoxetine treatment
GSE86392	28780410	Genome-wide Transcriptome Analysis of Hippocampus, Frontal cortex and Pituitary gland in Rats Elucidated the Pathogenesis of Depressive Disorder Induced by Chronic Restraint	Bao T. et al.	<b>Included</b>
GSE84185	28848385	Transcription profiling of blood, dentate gyrus and anterior cingulate cortex in mice exposed Unpredictable Chronic Mild Stress and treated with fluoxetine	Herve M. et al.	4 - Superseries
GSE84184	28848385	Transcription profiling of blood in mice exposed Unpredictable Chronic Mild Stress and treated with fluoxetine	Herve M. et al.	<b>Included</b>
GSE84183	28848385	Transcription profiling of dentate gyrus and anterior cingulate cortex in mice exposed Unpredictable Chronic Mild Stress and treated with fluoxetine	Herve M. et al.	<b>Included</b>

Table1 (4/5)

GEO Series Accession Number	Publication(s) (PMID)	GEO Series Title	Contributors	Inclusion or Exclusion Criteria
GSE93732	28253930	Electroconvulsive seizure-induced expression change in the dentate gyrus of the hippocampus in mice as an index of the neuronal responsiveness in vivo.	Segi-Nishida E. et al.	3 - No fluoxetine treatment
GSE89873	N/A	Gene expression profiling of early-activated targets of antidepressants in glia cells	Di Benedetto B. et al.	<b>Included</b>
GSE83386	27845776	Gene expression of Lymphoblastoid Cell Lines (LCLs) from Depressed Patients after in-vitro treatment with fluoxetine	Breitfeld J. et al.	<b>Included</b>
GSE80635	27356971	Psychoactive pharmaceuticals at environmental concentrations induce in vitro gene expressions associated with neurological disorders	Kaushik G. et al.	5 - Small sample size
GSE67203	26393488	Long-term consequences of chronic fluoxetine exposure on the expression of myelination-related genes in the rat hippocampus	Zhou J. H. et al.	5 - Small sample size
	25035085	Molecular regulation in the hippocampal dentate gyrus in the onset and treatment of depression	Patricio P. et al.	<b>Included</b>
GSE51904	26004136	The antidepressant fluoxetine elicits anticancer effects by impairing aerobic glycolysis in colon cancer cells and xenografts.	Kannen V. et al.	1,2 - Colon cancer
GSE59927	N/A	Drug Matrix Data - CodeLink Arrays	Auerbach S. et al.	4 - Superseries
GSE59923	N/A	Exposure of rat to a variety of toxicants, liver assayed by Codelink microarray	Auerbach S. et al.	1,2 - Liver toxicity
GSE59913	N/A	Exposure of rat to a variety of toxicants, kidney assayed by CodeLink microarray	Auerbach S. et al.	1,2 - Kidney toxicity
GSE59906	N/A	Exposure of rat hepatocytes to a variety of toxicants, assayed by CodeLink microarray.	Auerbach S. et al.	1,2 - Hepatocytes toxicity
GSE59905	N/A	Exposure of rat to a variety of toxicants, heart assayed by CodeLink microarray	Auerbach S. et al.	1,2 - Heart toxicity
GSE57822	25058030	Drug Matrix Data - Affymetrix Arrays	Auerbach S. et al.	4 - Superseries
	25058030	Exposure of rat to a variety of toxicants, kidney assayed by Affymetrix microarray	Auerbach S. et al.	1,2 - Kidney toxicity
GSE57811	26260164	In vitro exposure of rat hepatocytes to a variety of toxicants, assayed by Affymetrix	Auerbach S. et al.	1,2 - Hepatocyte toxicity
GSE57805	25058030	microarray	Auerbach S. et al.	1,2 - Heart toxicity
GSE57800	25058030	Exposure of rat to a variety of toxicants, heart assayed by Affymetrix microarray	Auerbach S. et al.	1,2 - Heart toxicity
GSE57781	25015077	Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes as an In Vitro Model for Coxsackievirus B3-Induced Myocarditis and Antiviral Drug Screening Platform	Sharma A. et al.	3 - No fluoxetine treatment
GSE54307	28253930	Hippocampal neuronal dematuration as a common effect of antidepressant treatments	Segi-Nishida E. et al.	5 - Small sample size
		Fluoxetine resistance in mice is associated with attenuated progression of a stereotyped dentate gyrus gene expression program	Samuels B. A. et al.	<b>Included</b>
GSE43261	24465494			

Table1 (5/5)

GEO Series Accession Number	Publication(s) (PMID)	GEO Series Title	Contributors	Inclusion or Exclusion Criteria
GSE42940	N/A	postnatal fluoxetine evoked gene expression changes in the rat hippocampus	Sarkar A. et al.	<b>Included</b>
GSE46909	23824090	Expression data from human Jurkat T cells exposed to 31 compounds	Shao J. et al.	1,2 - T cell toxicity
GSE48955	24010892	Psychotropic drug-induced gene expression alterations in mouse striatum	Piechota M. et al.	4 - Superseries
GSE48951	24010892	Psychotropic drug-induced gene expression alterations in mouse striatum I	Piechota M. et al.	<b>Included</b>
GSE48057	N/A	Effects of Citalopram Exposure on Osteogenesis in Mouse Calvarial Pre-Osteoblasts Transcription profiling of major depression peripheral blood mononuclear cells (PBMCs) at clinical remission compared to severe acute state	Cray J. J. Jr. et al.	3 - No fluoxetine treatment
GSE38206	23149449	Blood gene expression signatures distinguish autism spectrum disorders from controls	Bergon A. et al.	3 - No fluoxetine treatment
GSE18123	23227143		Kong S. et al.	3 - No fluoxetine treatment
GSE35766	22632977	Identification of the cortical neurons that mediate antidepressant responses Effect of fluoxetine treatment on translational profiles of S100a10 cortical pyramidal cells	Schmidt E. F. et al.	4 - Superseries
GSE35765	22632977	in p11 KOs	Schmidt E. F. et al.	2 - Mutant cell line
GSE35763	22632977	Effect of fluoxetine treatment on translational profiles of Glt25d2 cortical pyramidal cells	Schmidt E. F. et al.	<b>Included</b>
GSE35761	22632977	Effect of fluoxetine treatment on translational profiles of S100a10 cortical pyramidal cells	Schmidt E. F. et al.	<b>Included</b>
GSE35758	22632977	Comparative analysis of S100a10 and Glt25d2 cortical pyramidal cells	Schmidt E. F. et al.	3 - No fluoxetine treatment
GSE35751	22632977	Comparative analysis of S100a10-expressing cortical pyramidal cells and whole cortex	Schmidt E. F. et al.	3 - No fluoxetine treatment
GSE31924	N/A	To study the relationship between 5-HT7 gene expressions and the expression of the glycan binding protein NCAM Gene Expression Data Following Chronic Vehicle or Fluoxetine Treatment in Thirty Mouse Inbred Lines	Hedlund P. et al.	3 - No fluoxetine treatment
GSE28644	22113448 20953200	Mouse Inbred Lines	Benton C. S. et al.	<b>Included</b>
GSE24095	22339950	Human postmortem hippocampus: Major depressive disorder (MDD) vs. Control	Duric V. et al.	3 - No fluoxetine treatment
GSE8858	18364709	Liver Pharmacology and Xenobiotic Response Repertoire	Natsoulis G. et al.	1,2 - Liver toxicity
GSE6476	17609676	Effect of chronic fluoxetine treatment on hippocampal gene expression	Miller B. H. et al.	5 - Small sample size
GSE8251	17557906	Non-genotoxic Hepatocarcinogens	Fielden M. R. et al.	1,2 - Liver toxicity

# Table 1 Key

- 1 Not studying SSRI treatment focused on depression or anxiety
- 2 Not in a relevant tissue type or genetic background
- 3 No fluoxetine treatment
- 4 Redundant series (Superseries)
- 5 Sample size too small

ID	Comparisons	GEO Series Accession Number	Technology	Organism	Tissue(s)	Samples	Stress Method / Diagnosis	Fluoxetine Treatment Method	Drug Response Determination
DS1	(a-d) Cortex (a) Response (b) Treatment (c) Non-responders (d) Responders	GSE28644	Microarray	<i>Mus musculus</i>	Cortex	60 (30/group)	N/A	3-weeks 18 mg/kg/day	Open-field test
DS2	(a, c, e, g) Dorsal Dentate Gyrus (b, d, f, h) Ventral Dentate Gyrus (a-b) Reponse (c-d) Treatment (e-f) Non-responders (g-h) Responders	GSE43261	Microarray	<i>Mus musculus</i>	Dorsal dentate gyrus, Ventral dentate gyrus	38 (4 or 8/group)	Corticosterone	>1-week 160 mg/L in drinking water	Novelty suppressed feeding, Forced swim test
DS3	(a-d) Lymphoblastoid Cell Lines (a) Response (b) Treatment (c) Non-responders (d) Responders	GSE83386	Microarray	<i>Homo sapiens</i>	Lymphoblastoid cell lines	20 (10/group)	Major Depressive Disorder	3-weeks 0.5 µg/mL	Hamilton Depression Rating Scale
DS4	(a, c, e, g, i) Anterior Cingulate Cortex (b, d, f, h, j) Dentate Gyrus (a-b) Reponse (c-d) Stressed Treatment (e-f) Unstressed Treatment (g-h) Non-responders (i-j) Responders	GSE84183	Microarray	<i>Mus musculus</i>	Dentate gyrus, Anterior cingulate cortex	64 (8/group)	7-weeks unpredictable chronic mild stress	5-weeks 120 mg/L in drinking water	Coat state measurement
DS5	(a-e) Blood (a) Reponse (b) Stressed Treatment (c) Unstressed Treatment (d) Non-responders (e) Responders	GSE84184	Microarray	<i>Mus musculus</i>	Whole blood	32 (8/group)	7-weeks unpredictable chronic mild stress	5-weeks 120 mg/L in drinking water	Coat state measurement
DS6	(a, c, e, g) S100a10 Whole Cell (b, d, f, h) S100a10 TRAP (a-b) Reponse (c-d) Treatment (e-f) Non-responders (g-h) Responders	GSE202172	RNA-Seq	<i>Mus musculus</i>	S100a10 cortical cells	32 (4/group)	7-weeks single-housing	3-weeks 167 mg/L in drinking water	Home cage time spent in shelter zone

ID	Comparisons	GEO Series Accession Number	Technology	Organism	Tissue(s)	Samples	Stress Method / Diagnosis	Fluoxetine Treatment Method	Drug Response Determination
DS7	(-) S100a10 Cells (-) Treatment	GSE35761	Microarray	<i>Mus musculus</i>	S100a10 cortical cells	6 (3/group)	N/A	15-18 days 167 mg/L in drinking water	None
DS8	(-) Glt25d2 Cells (-) Treatment	GSE35763	Microarray	<i>Mus musculus</i>	Glt25d2 cortical cells	6 (3/group)	N/A	15-18 days 167 mg/L in drinking water	None
DS9	(-) Hippocampus (-) Treatment	GSE42940	Microarray	<i>Rattus norvegicus</i>	Hippocampus	8 (4/group)	N/A	3-weeks 10 mg/kg/day	None
DS10	(a-d) Striatum (a) Treatment 1 hour (b) Treatment 2 hours (c) Treatment 4 hours (d) Treatment 8 hours	GSE48951	Microarray	<i>Mus musculus</i>	Striatum	60 (12/group)	N/A	1-dose 20 mg/kg	None
DS11	(-) Dentate Gyrus (-) Treatment	GSE56028	Microarray	<i>Rattus norvegicus</i>	Dentate gyrus	21 (3/group)	6-weeks unpredictable chronic mild stress	2-weeks 10 mg/kg/day	None
DS12	(-) Brain (-) Treatment	GSE86392	RNA-Seq	<i>Rattus norvegicus</i>	Hippocampus, Frontal cortex, Pituitary gland	12 (3/group: 1/tissue)	4-weeks of chronic restraint stress	4-weeks 10 mg/kg/day	None
DS13	(-) Glioma (-) Treatment	GSE89873	Microarray	<i>Rattus norvegicus</i>	C6 glioma cells (model of astrocytes)	28 (4 or 6/group)	N/A	2-hours 25 µM	None
DS14	(-) Hippocampus (-) Treatment	GSE109445	RNA-Seq	<i>Rattus norvegicus</i>	Hippocampus	12 (3/group)	5-weeks chronic unpredictable stress	1-week 10 mg/kg/day	None
DS15	(-) Prefrontal Cortex (-) Treatment	GSE118668	Microarray	<i>Mus musculus</i>	Prefrontal cortex	16 (8/group)	N/A	3-weeks 15 mg/kg/day	None
DS16	(-) Dentate Gyrus (-) Treatment	GSE118669	Microarray	<i>Mus musculus</i>	Dentate gyrus	16 (8/group)	N/A	3-weeks 15 mg/kg/day	None
DS17	(-) Blood (-) Treatment	GSE128387	Microarray	<i>Homo sapiens</i>	Whole blood	32 (15-17/group)	Major Depressive Disorder	8-weeks, dosage not specified	None
DS18	(-) Amygdala (-) Treatment	GSE150431	RNA-Seq	<i>Mus musculus</i>	Amygdala	48 (8/group)	N/A	2 days, 5 mg/kg/day	None
DS19	(a-aa) 27 Brain Regions (a-aa) Treatment	GSE194289	RNA-Seq	<i>Rattus norvegicus</i>	27 brain regions	212 (~4/group)	N/A	6-weeks 18 mg/kg/day	None
DS20	(-) Hippocampus (-) Treatment	GSE205325	RNA-Seq	<i>Rattus norvegicus</i>	Hippocampus	21 (3/group)	12-weeks chronic unpredictable stress	4-weeks 5 mg/kg/day	None

# Comparisons Labels Key

GSExxxx\_Tissue\_123456

## 1: Stress or MDD diagnosis

S - Stress  
D - Depression diagnosis  
X - None

## 2: Treatment

F - Fluoxetine  
P - Paroxetine  
C - Citalopram  
E - Escitalopram  
S - Sertraline  
X - No SSRI treatment

## 3: Numerator

C - Control  
T - Treated  
U - Untreated  
R - Responder (Treated)  
N - Non-responder (Treated)

## 4: Denominator

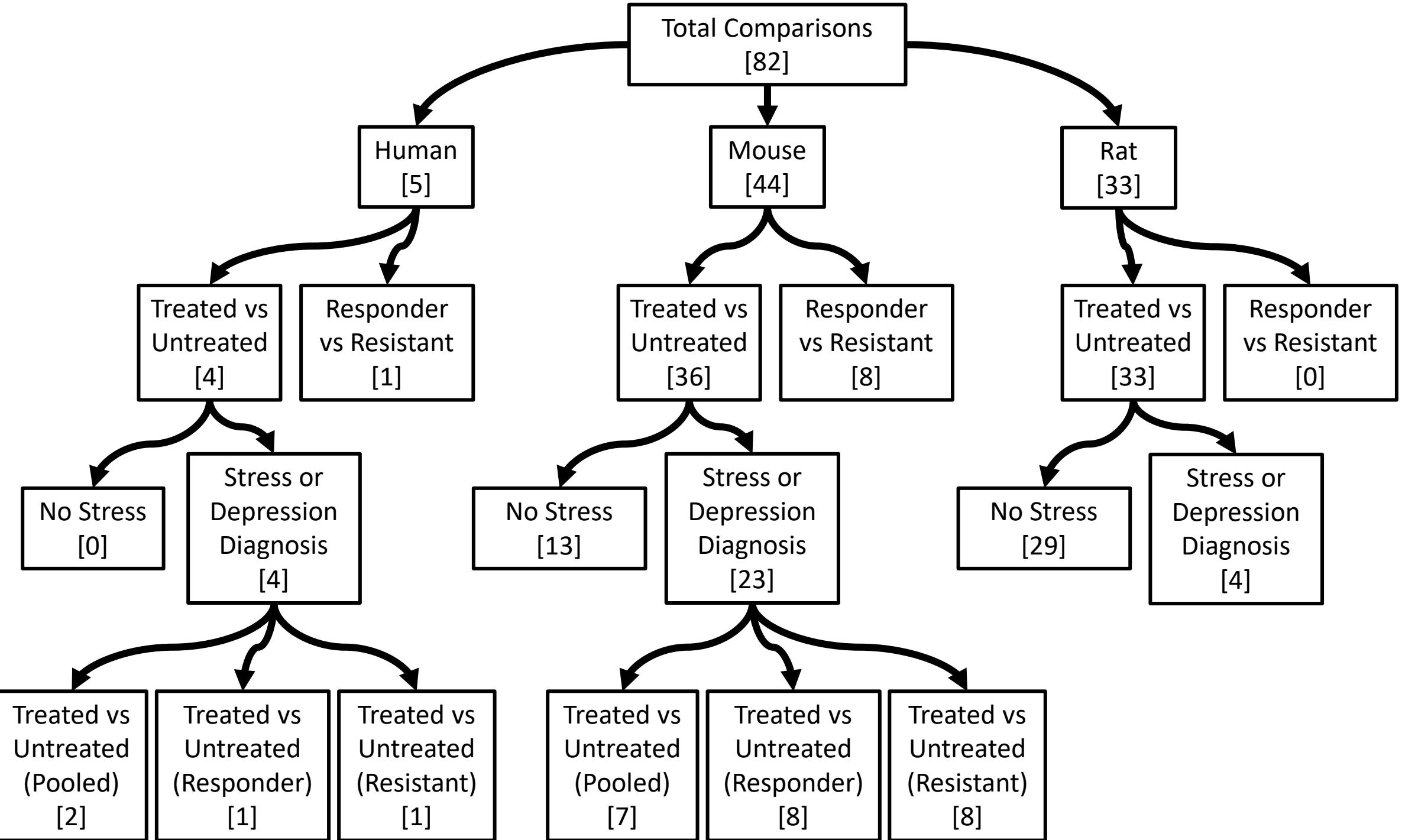
C - Control  
T - Treated  
U - Untreated  
R - Responder (Treated)  
N - Non-responder (Treated)

## 5: TimePoint

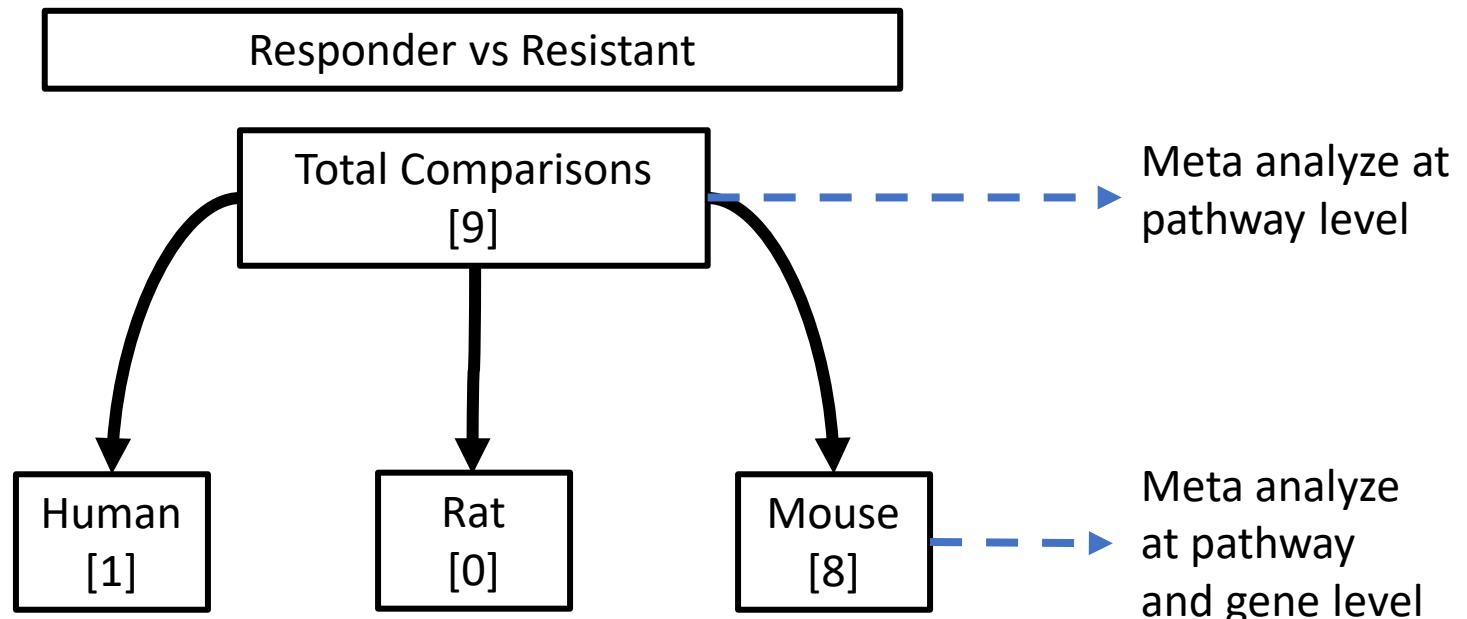
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X - unused

## 6: unused

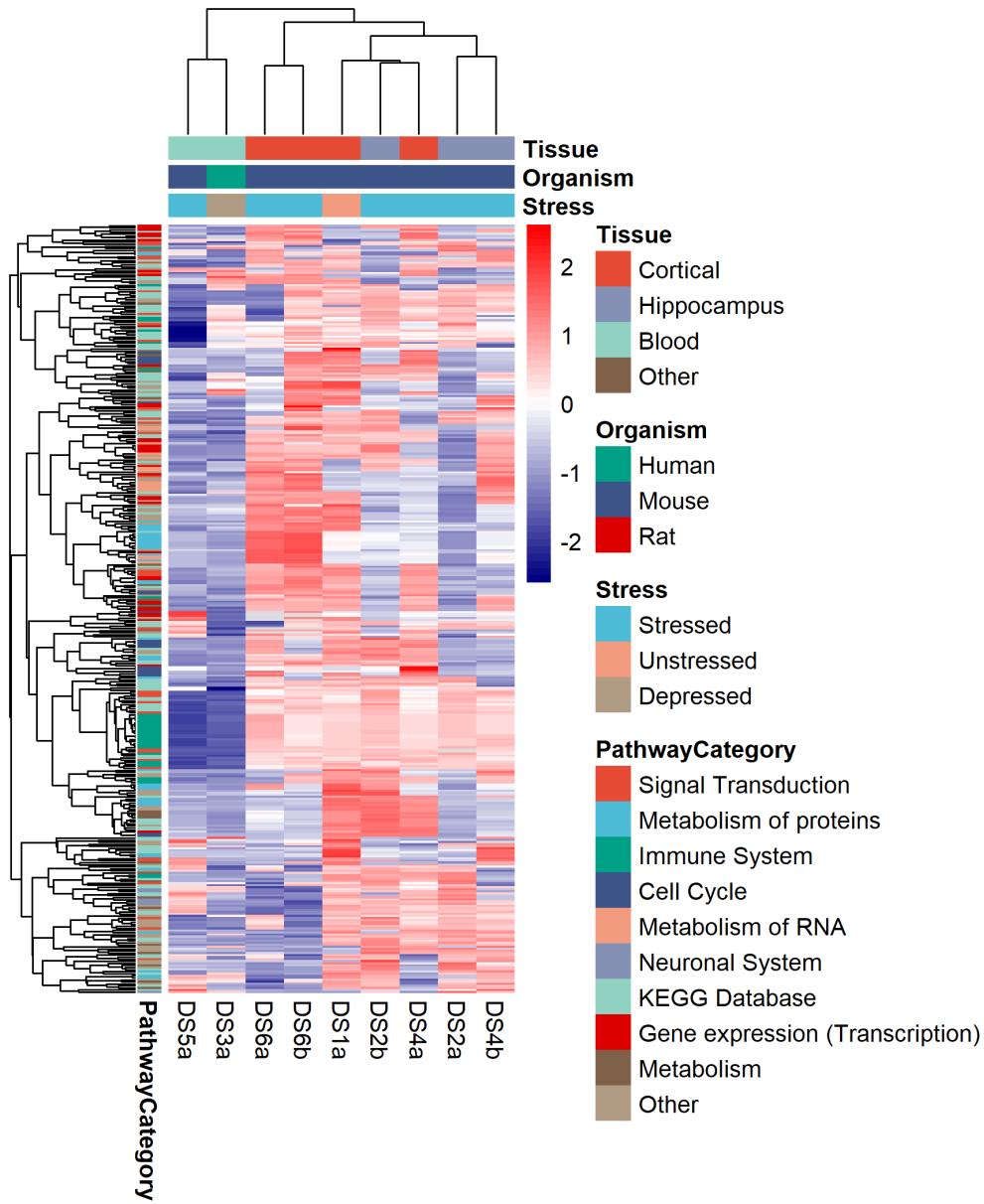
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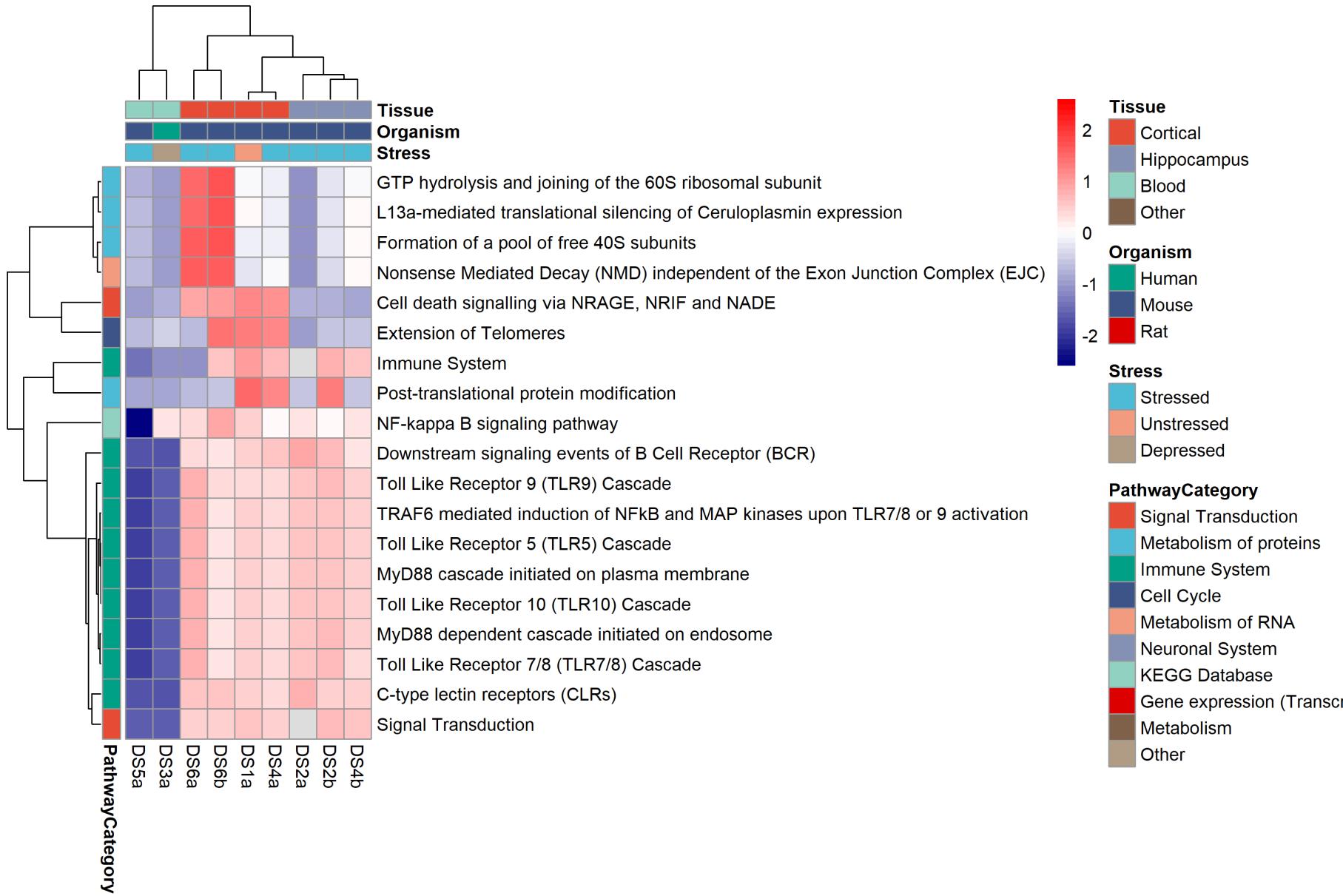
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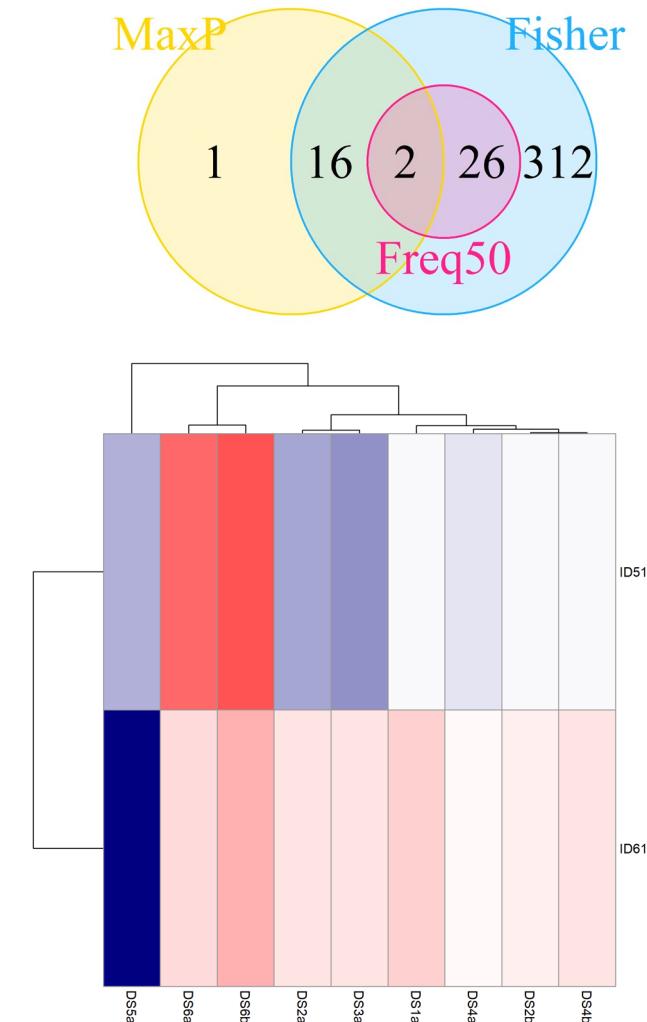
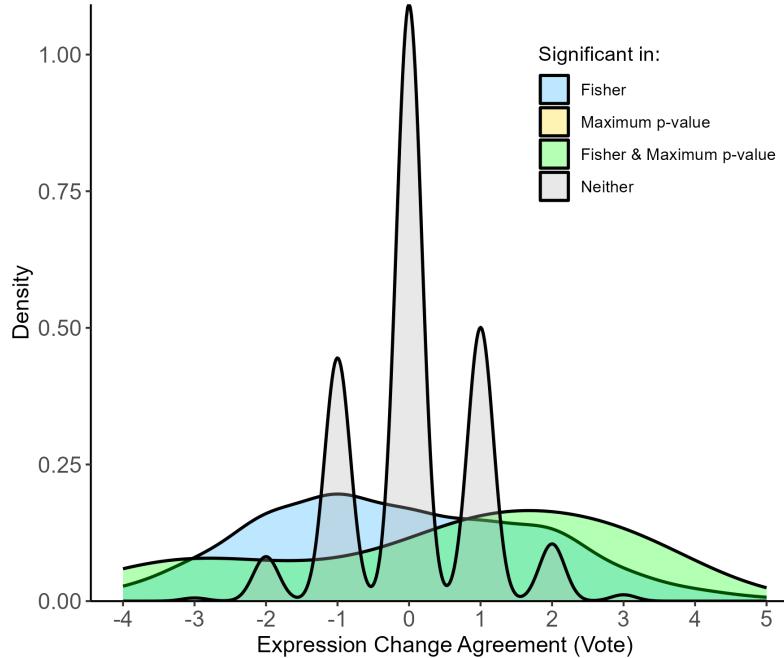
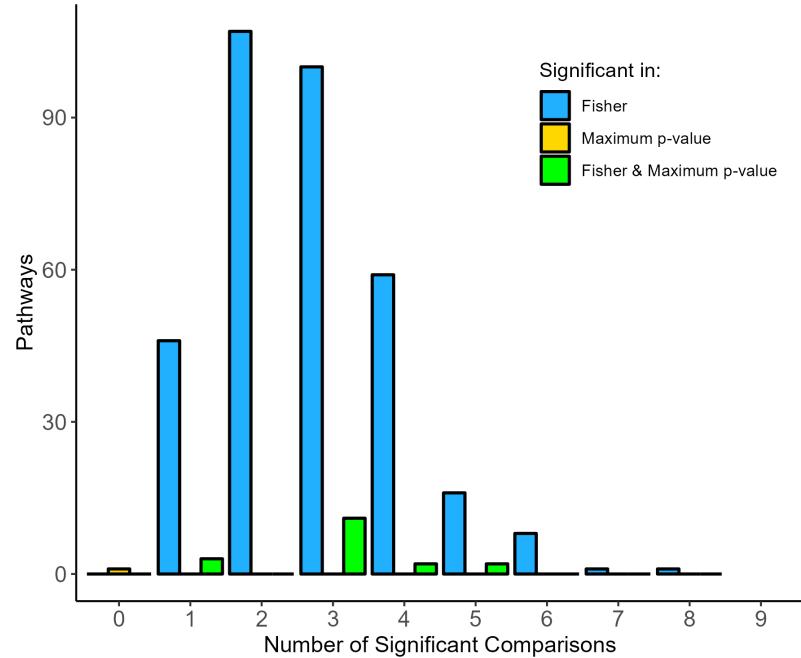
## Responder vs Resistant: Significant Pathways (Total Comparisons)



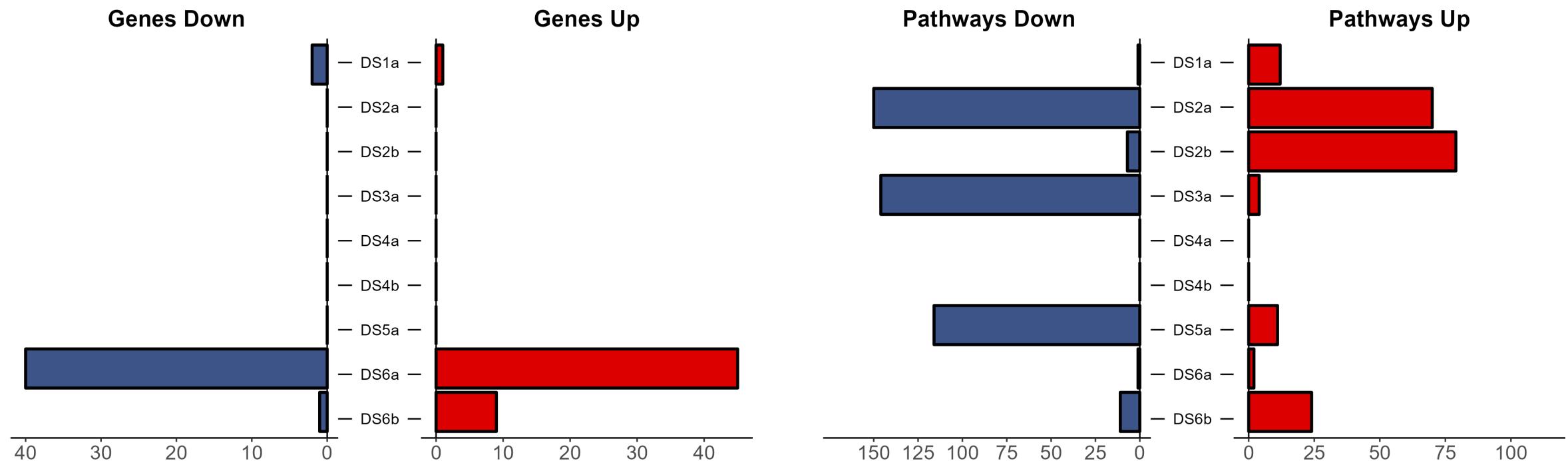
## Responder vs Resistant: Max-p Significant Pathways (Total Comparisons)



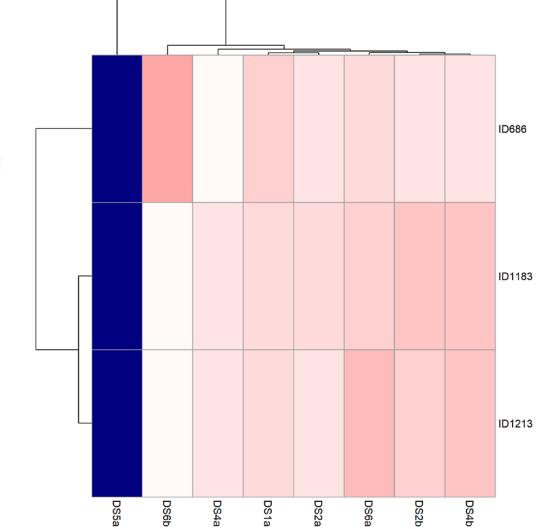
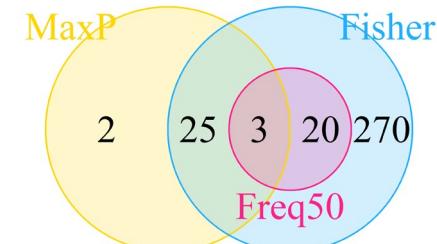
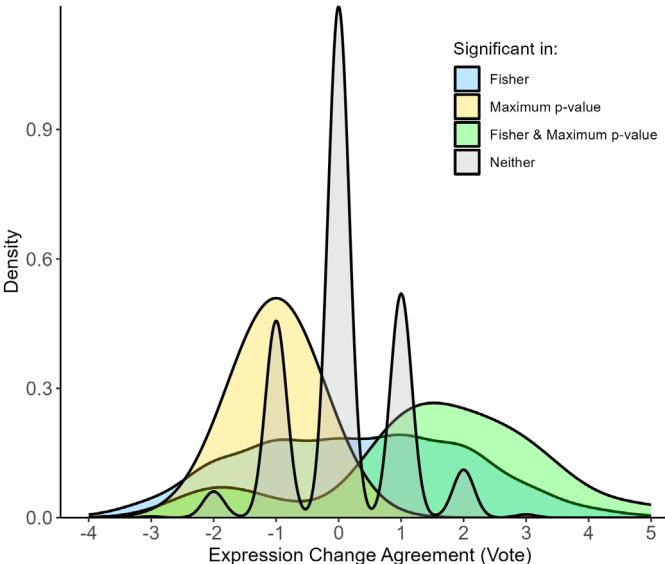
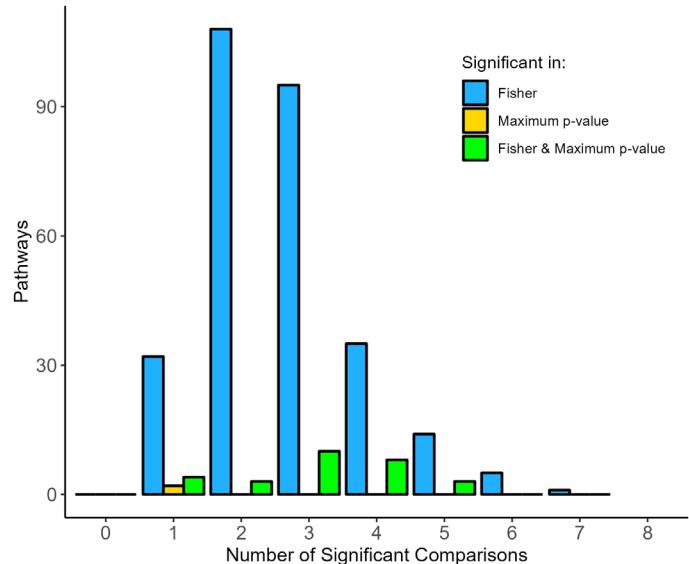
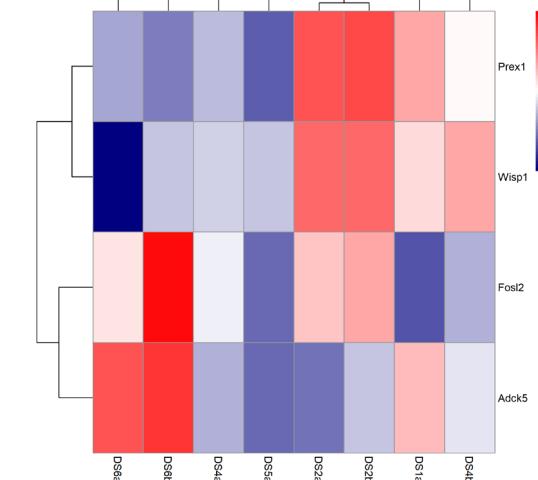
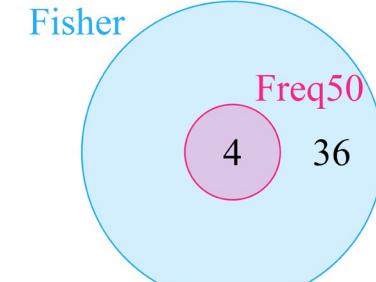
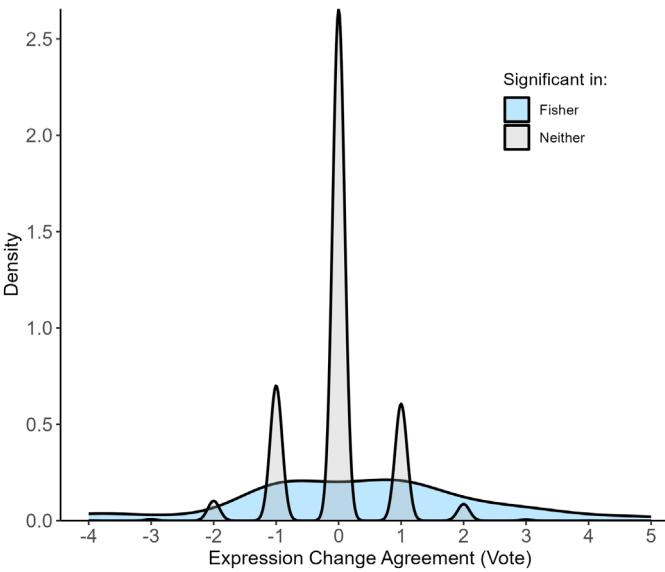
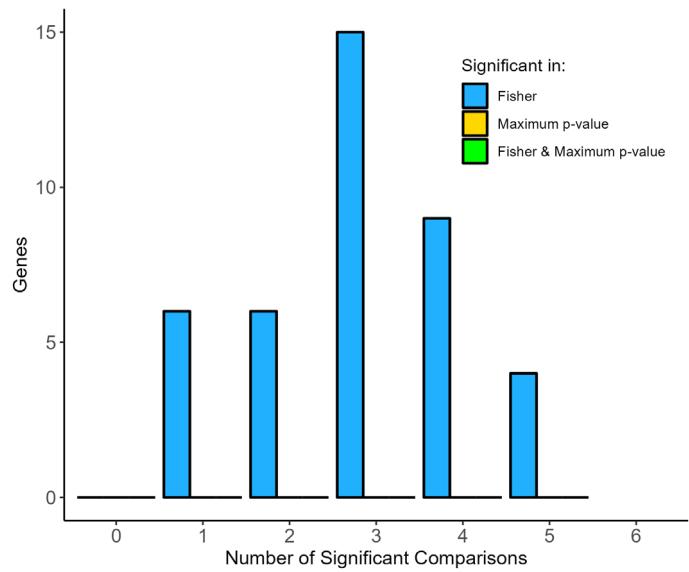
## Responder vs Resistant: Total Comparisons [9]



## Responder vs Resistant: Total Comparisons [9]

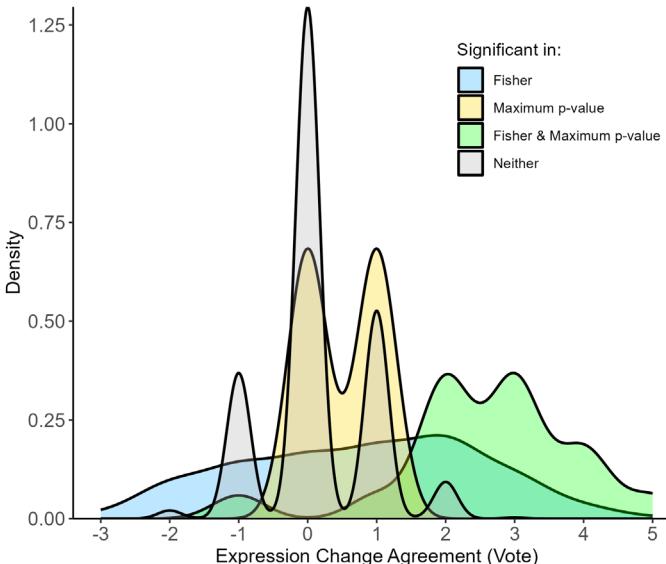
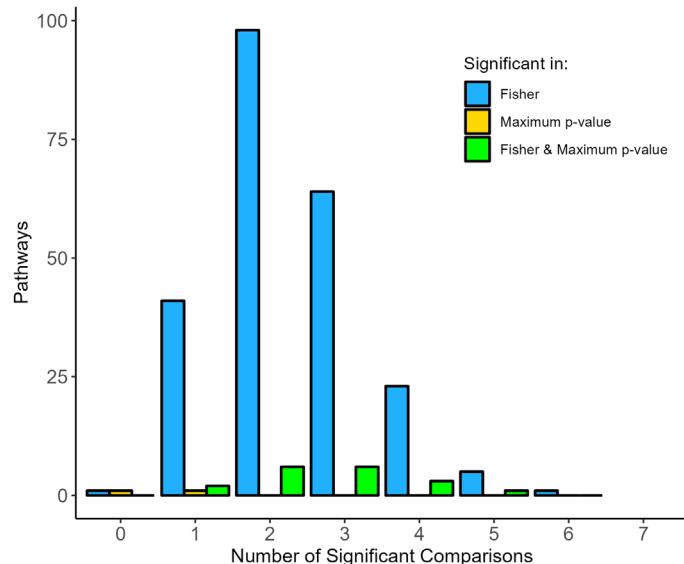
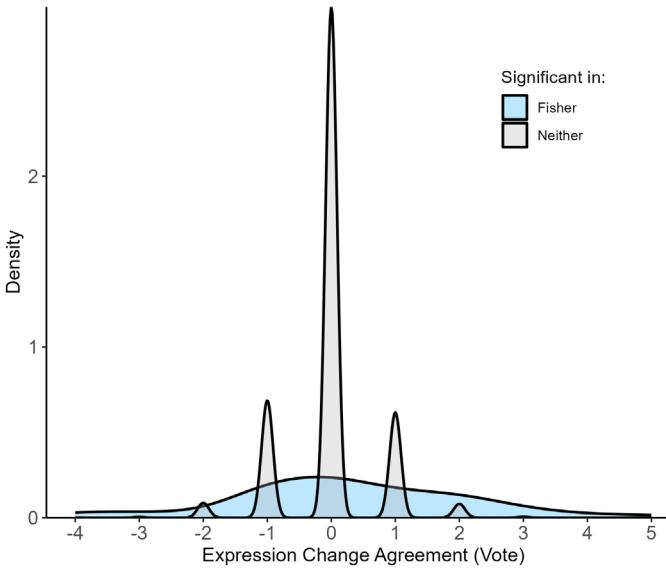
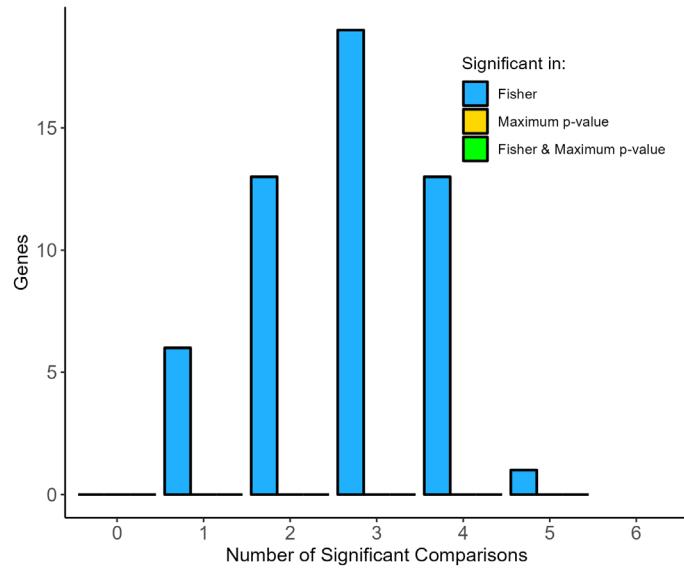


## Responder vs Resistant: Mouse [8]



## Responder vs Resistant: Brain Only (Mouse) [7]

Excludes DS3a and DS5a



Fisher Freq50

38

14

14

MaxP Fisher

2

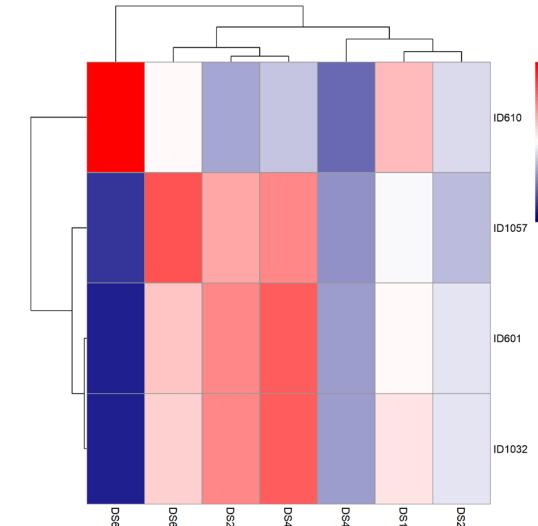
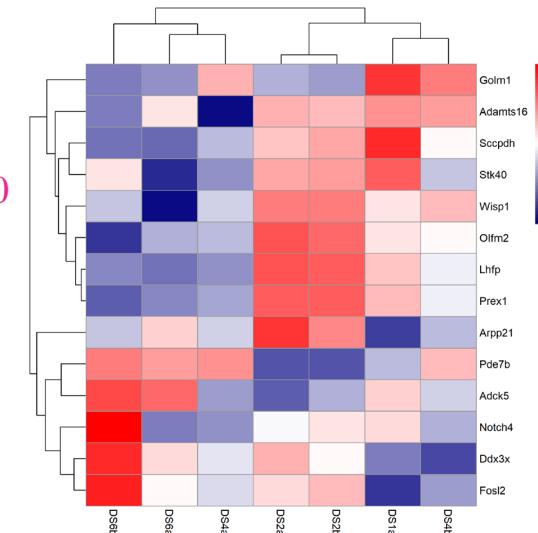
14

4

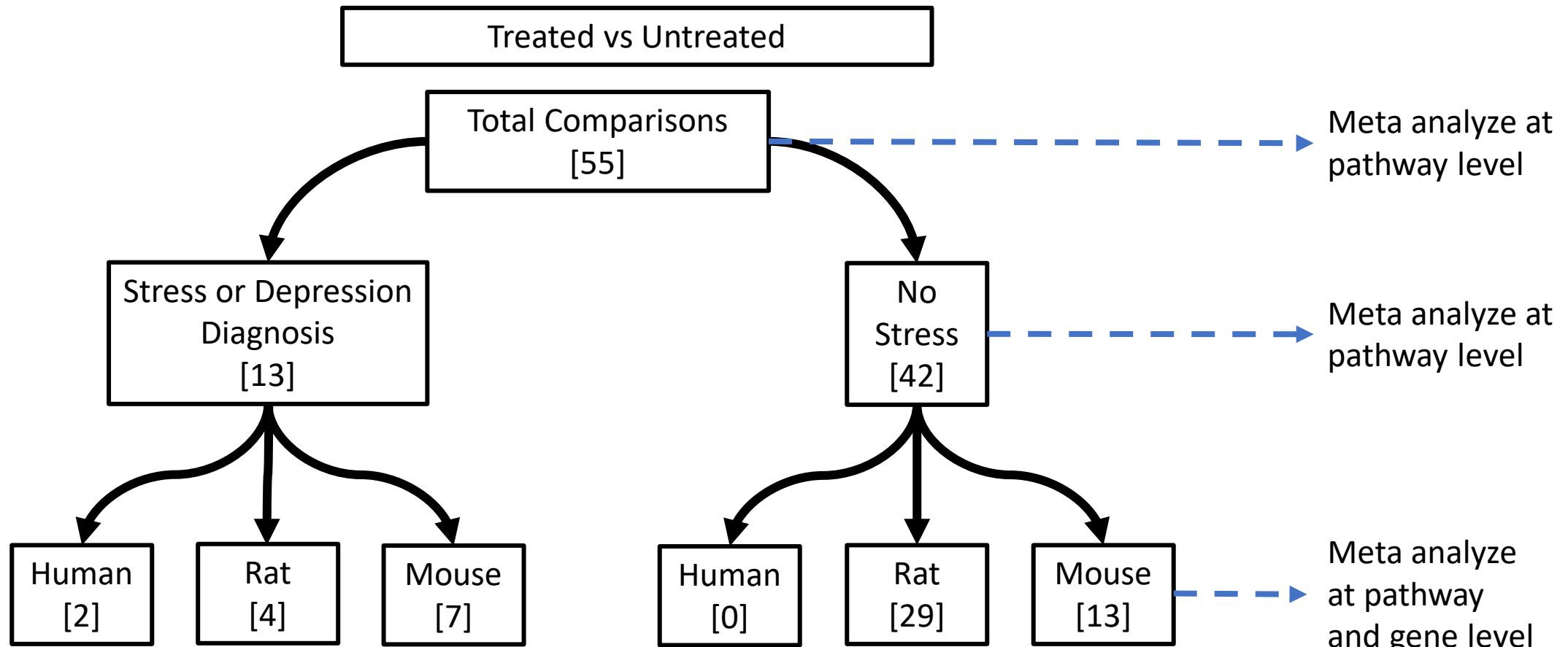
29

204

Freq50

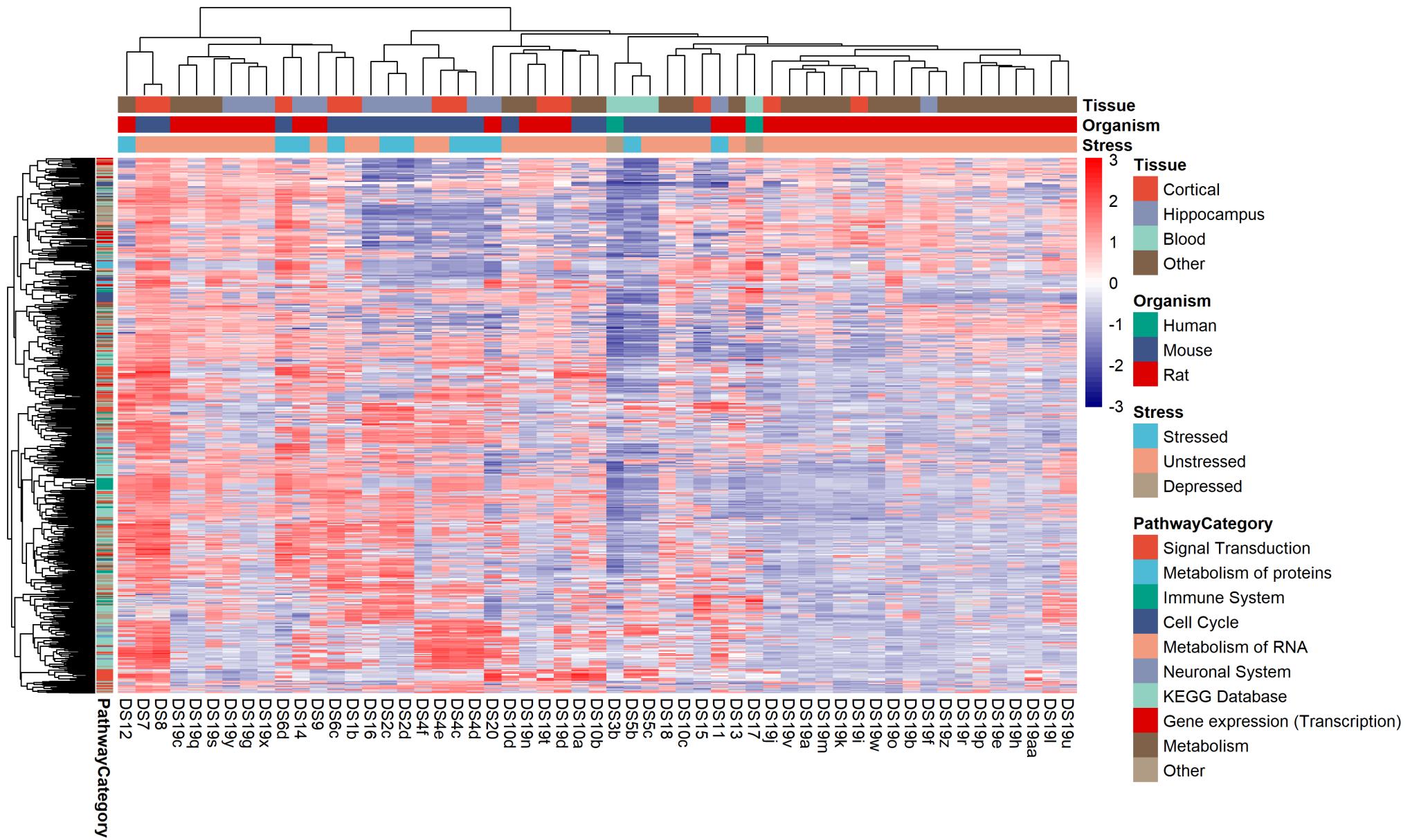


# Treated vs Untreated

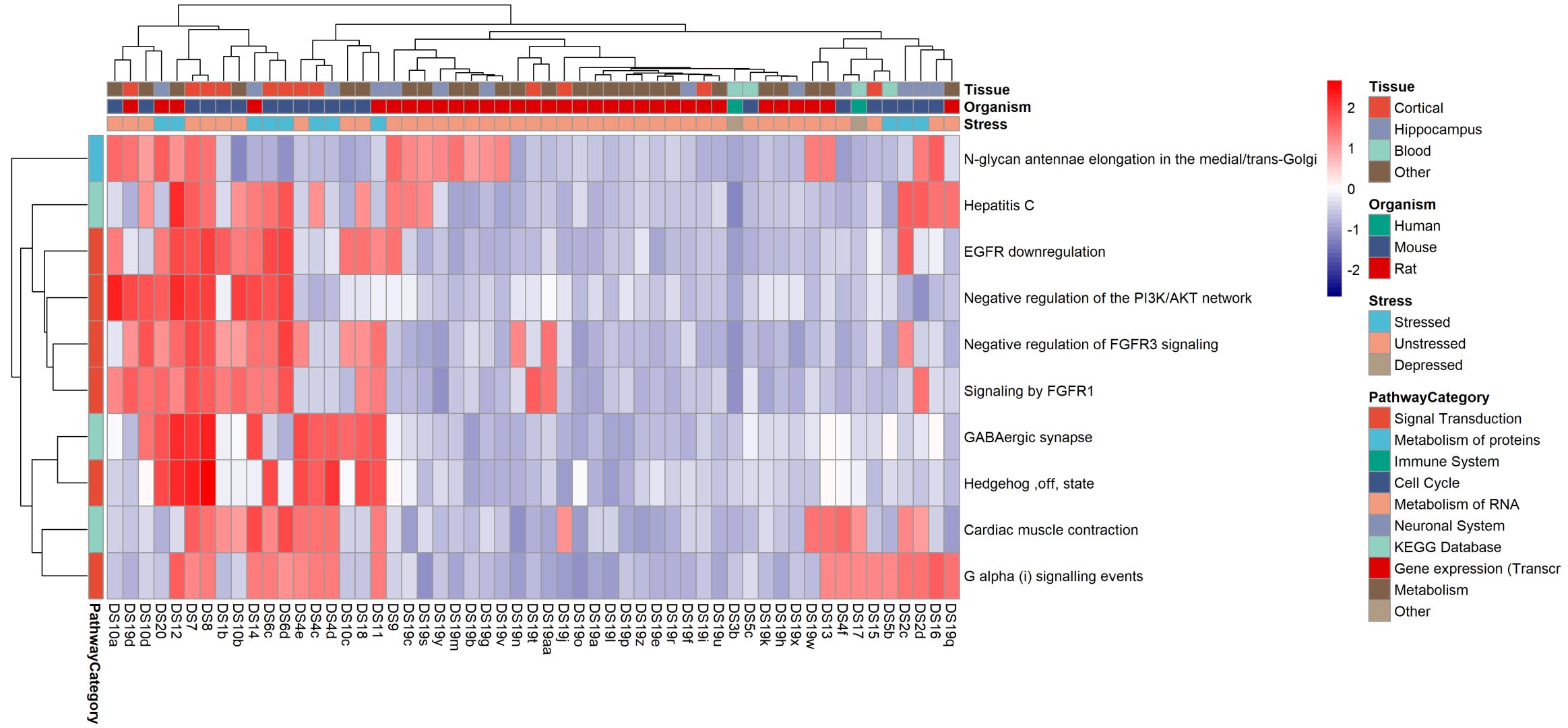


Treated vs untreated (pooled) w/o any response information

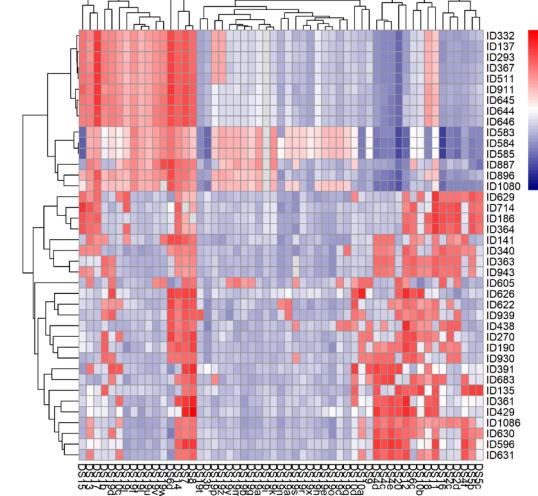
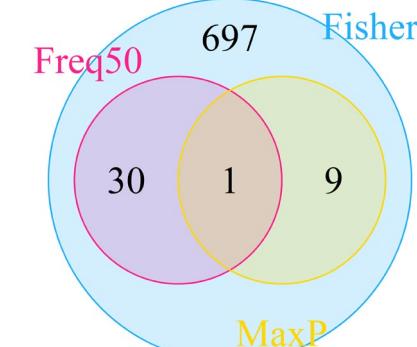
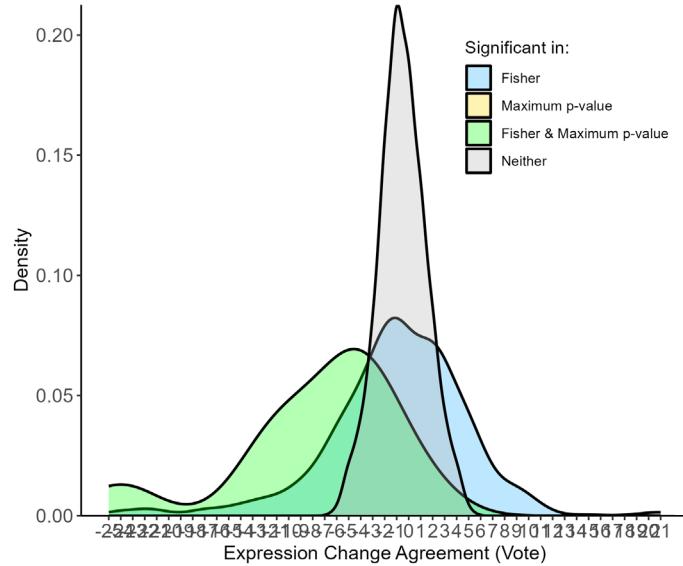
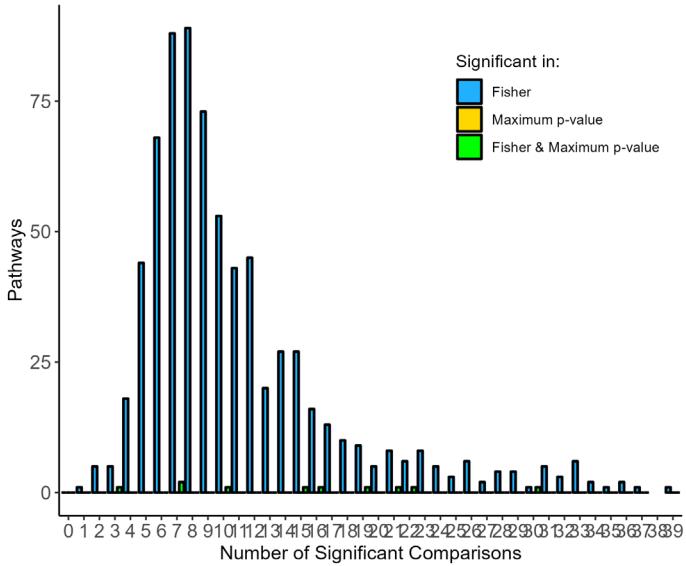
## Treated vs Untreated: Significant Pathways (Total Comparisons)



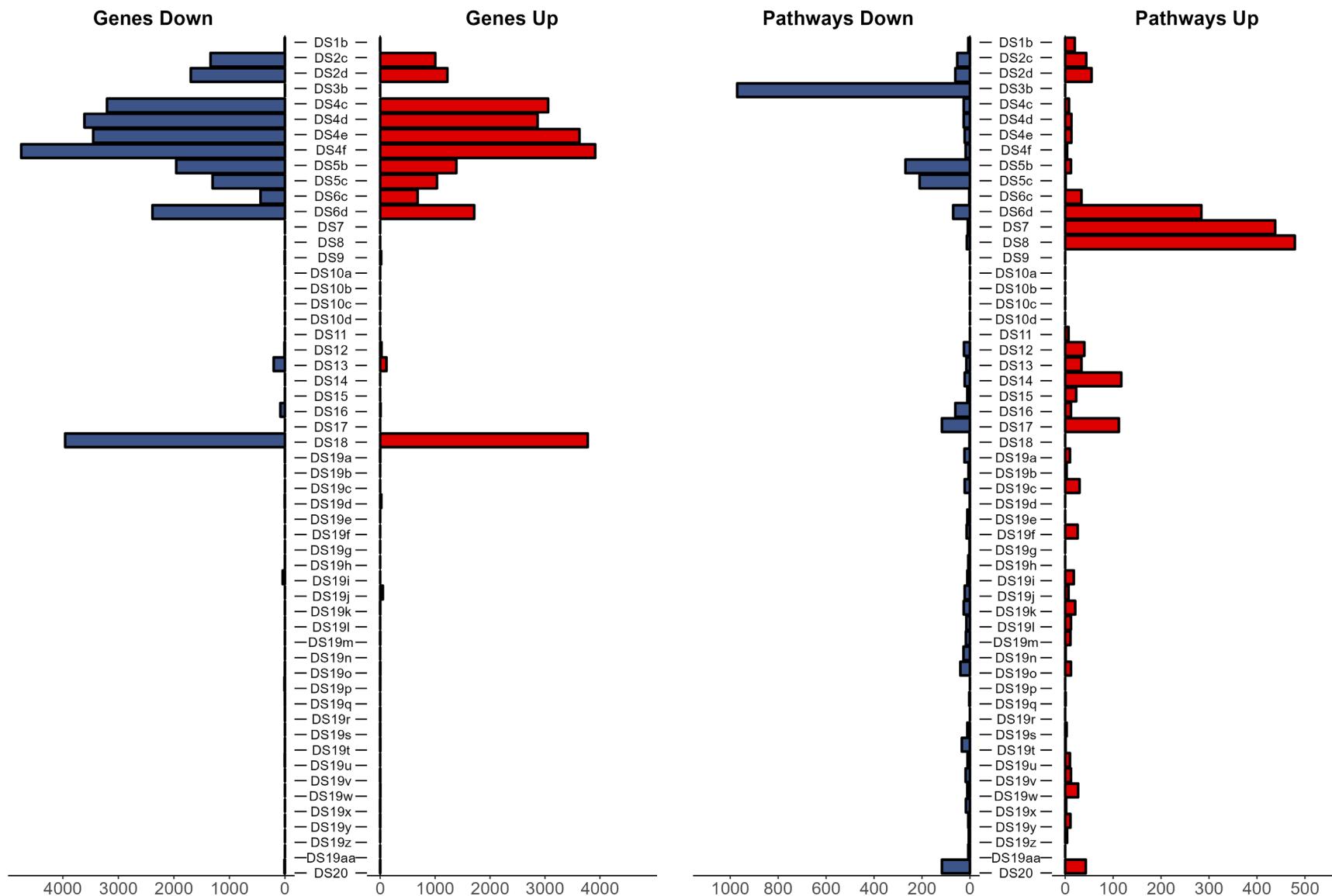
## Treated vs Untreated: Max-p Significant Pathways (Total Comparisons)



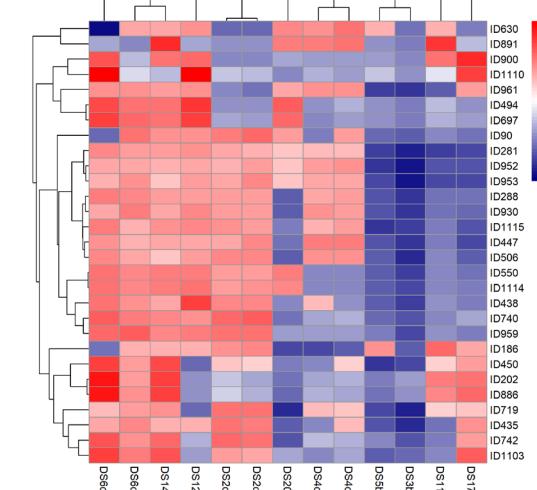
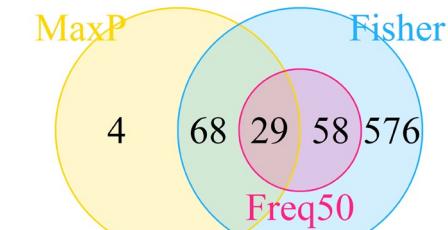
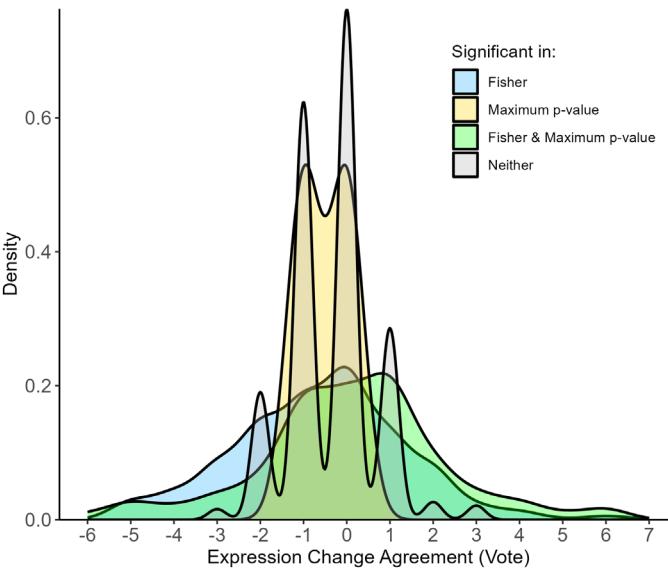
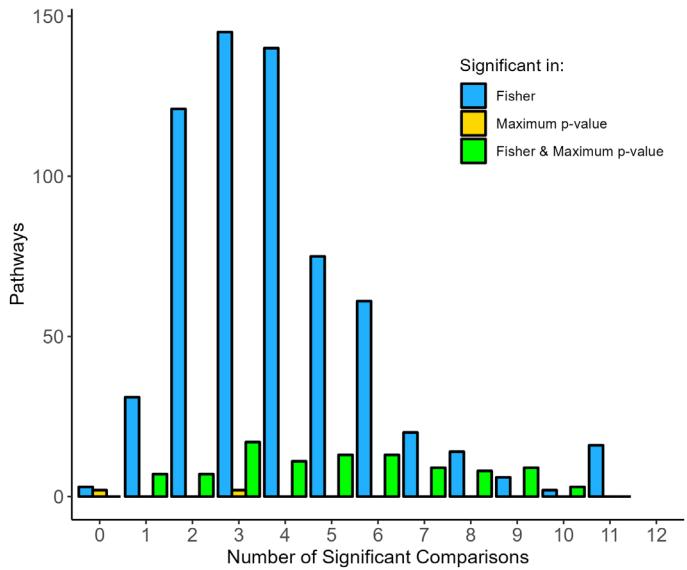
## Treated vs Untreated : Total Comparisons [55]



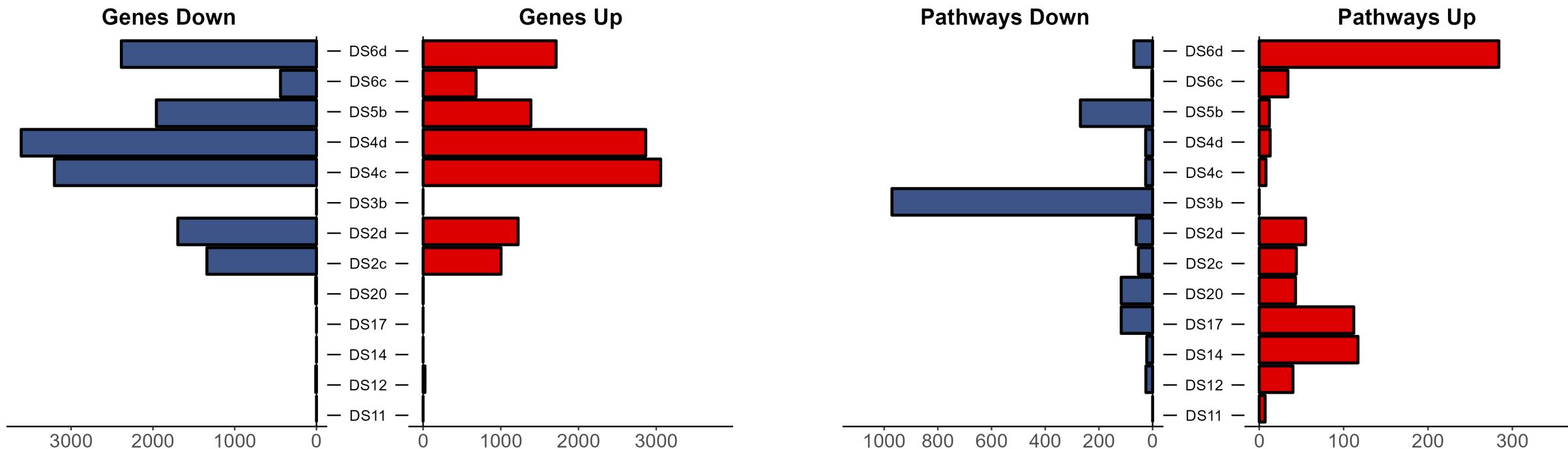
## Treated vs Untreated : Total Comparisons [55]



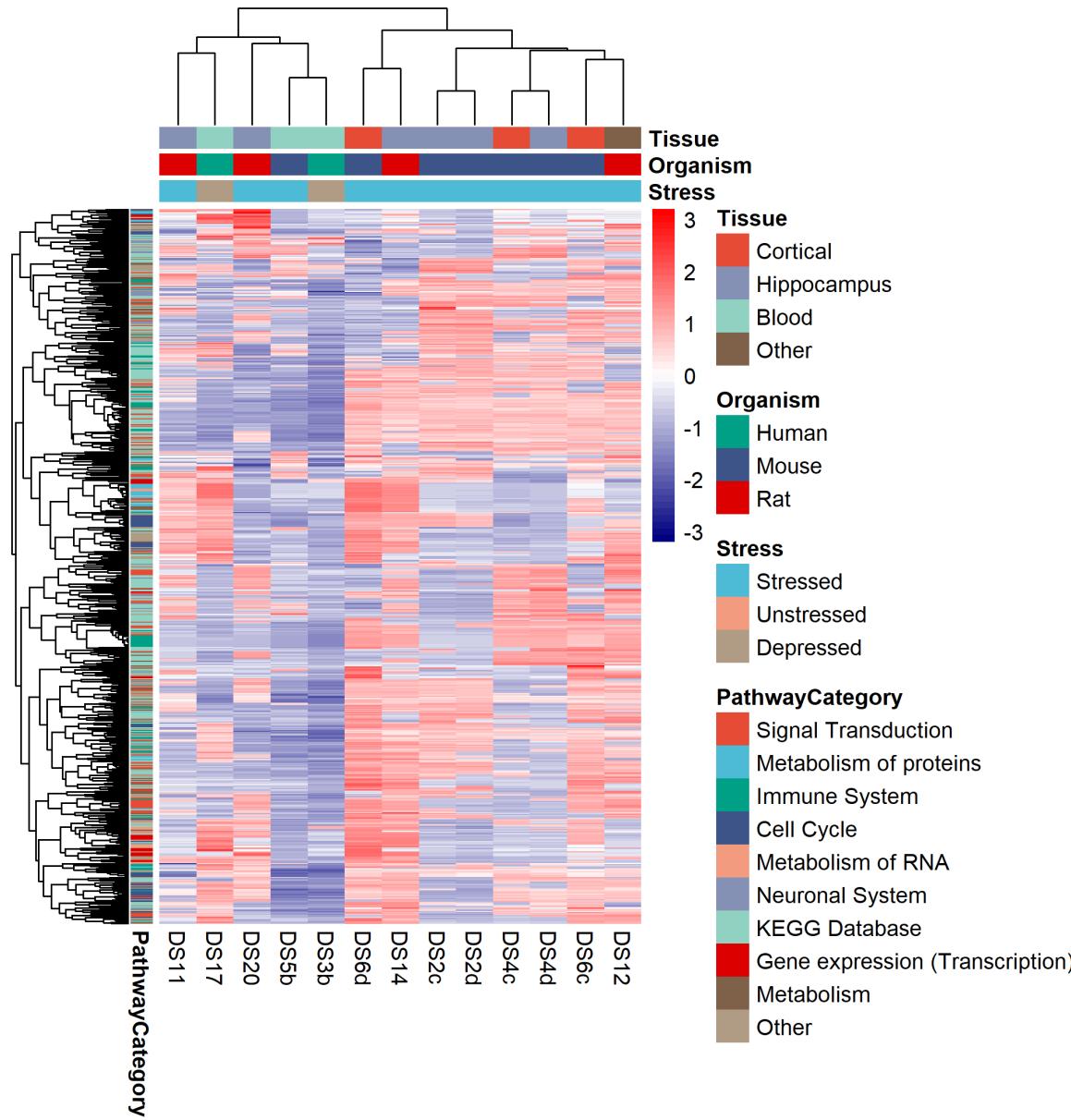
## Treated vs Untreated : Stress or Depression Diagnosis [13]



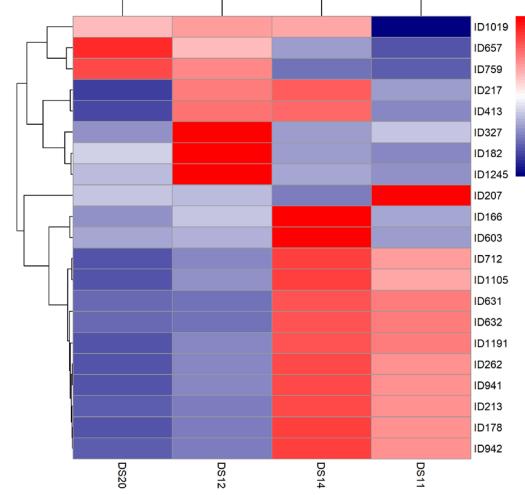
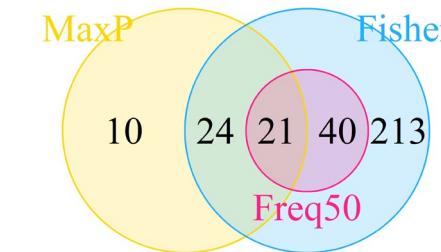
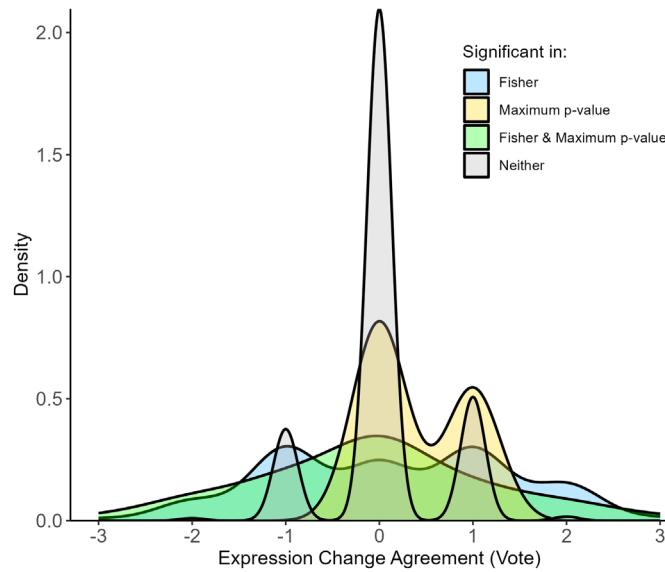
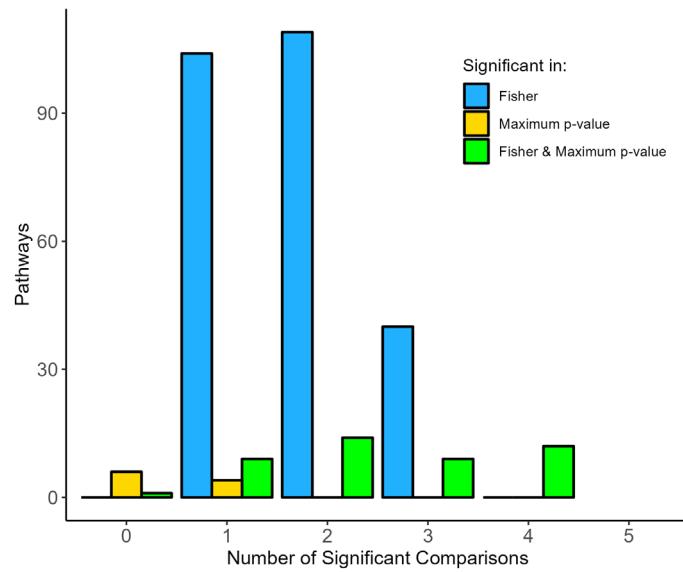
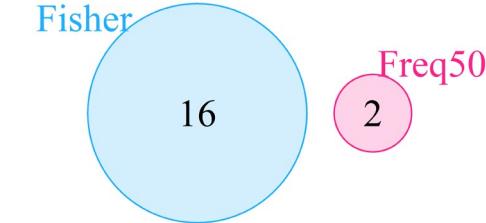
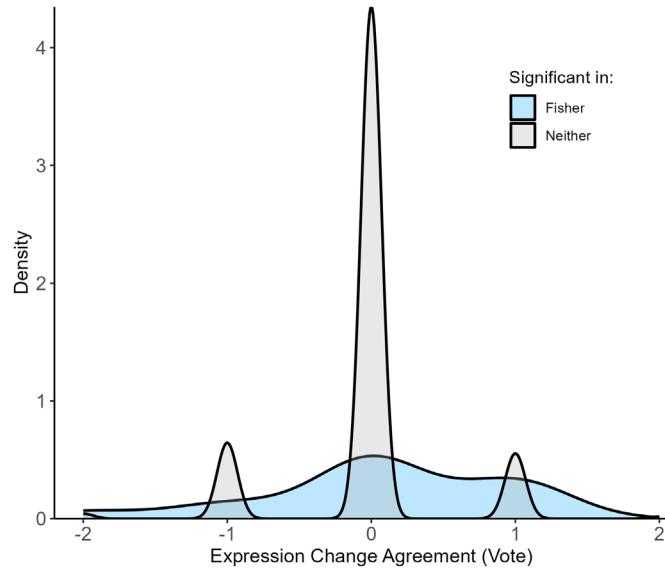
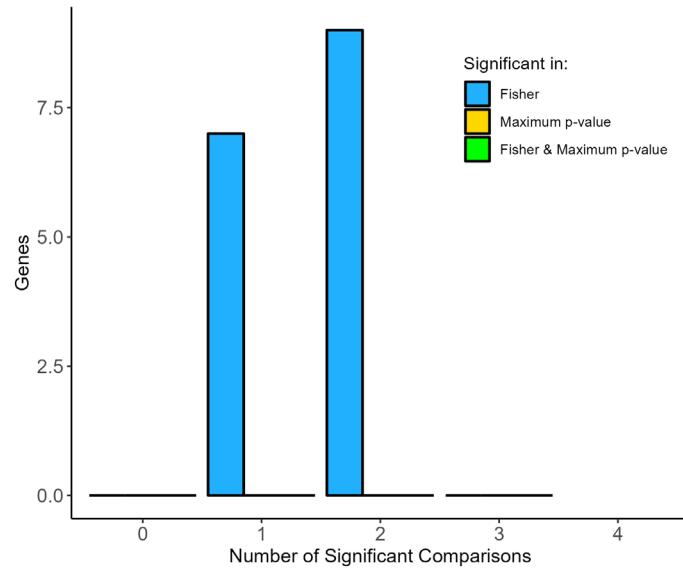
### Treated vs Untreated : Stress or Depression Diagnosis [13]



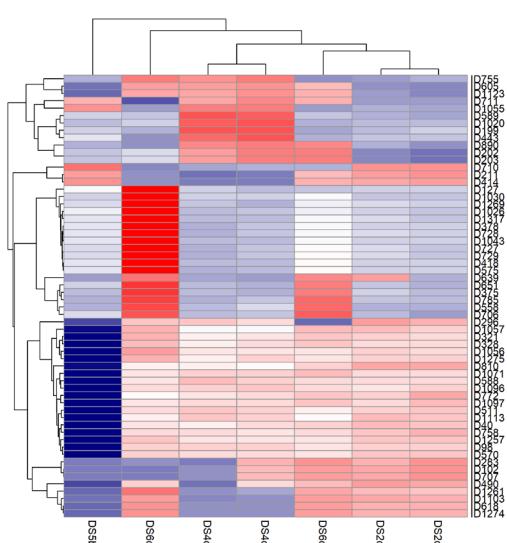
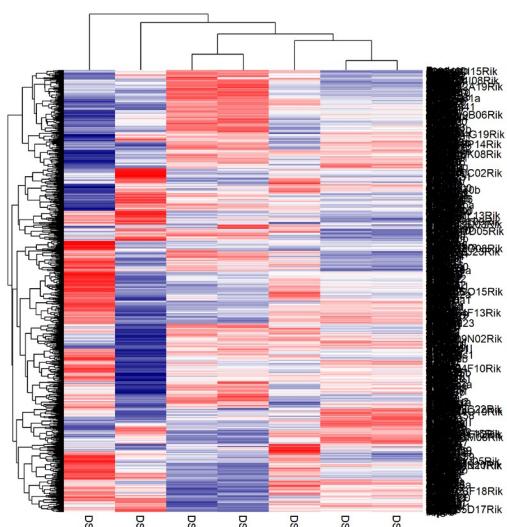
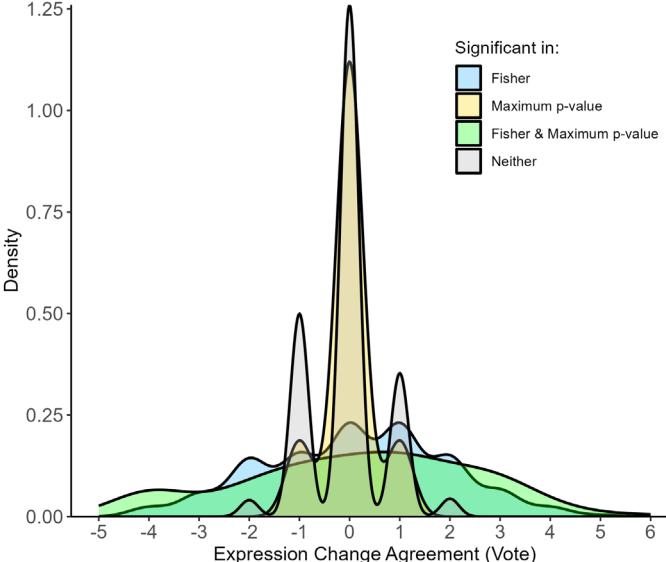
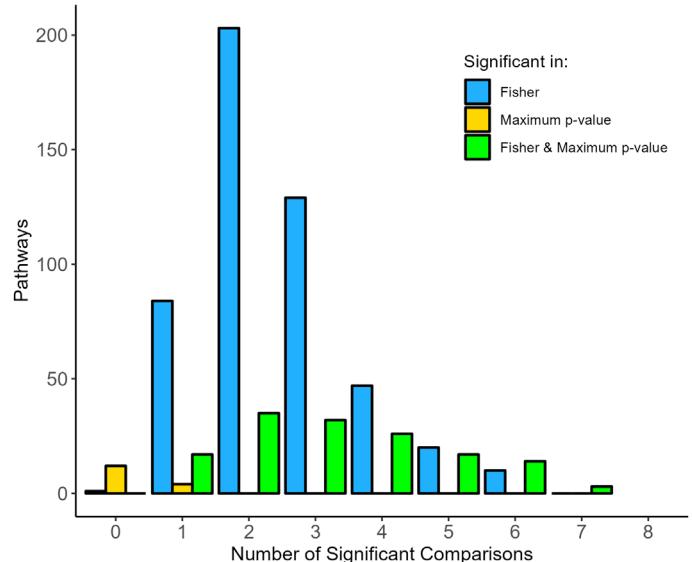
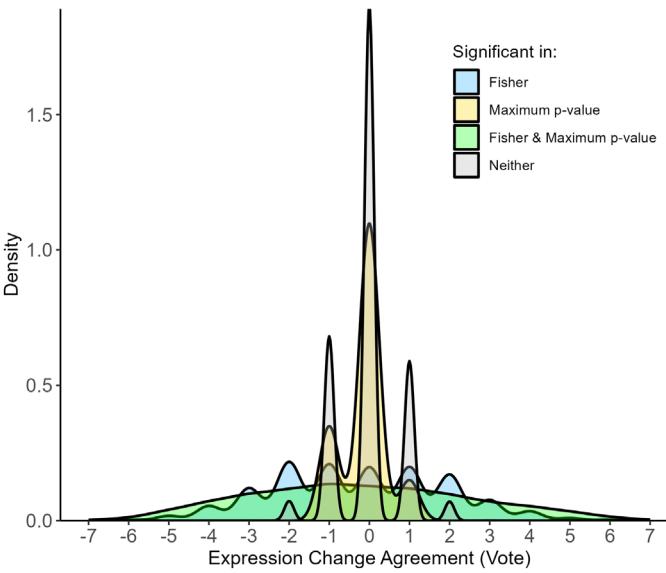
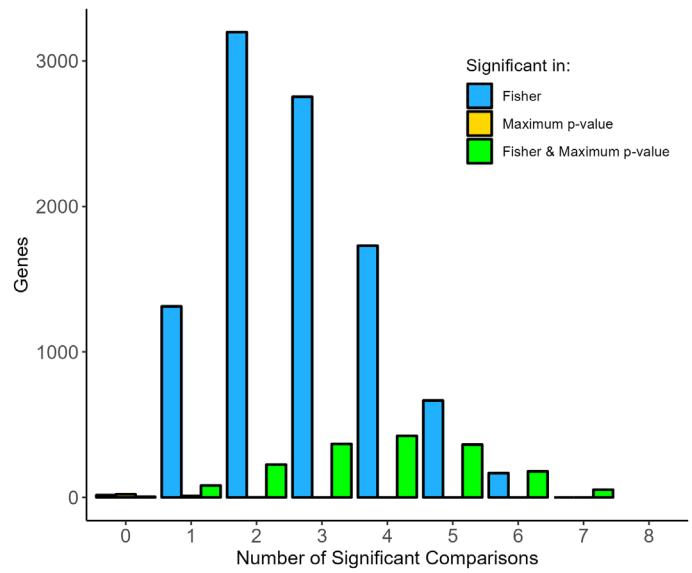
## Treated vs Untreated : Fisher Significant Pathways (Stress or Depression Diagnosis [13])



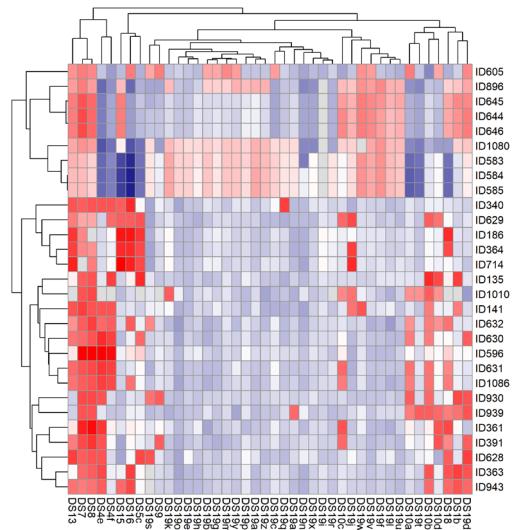
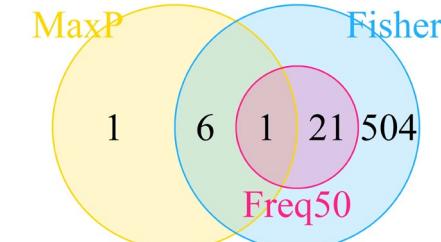
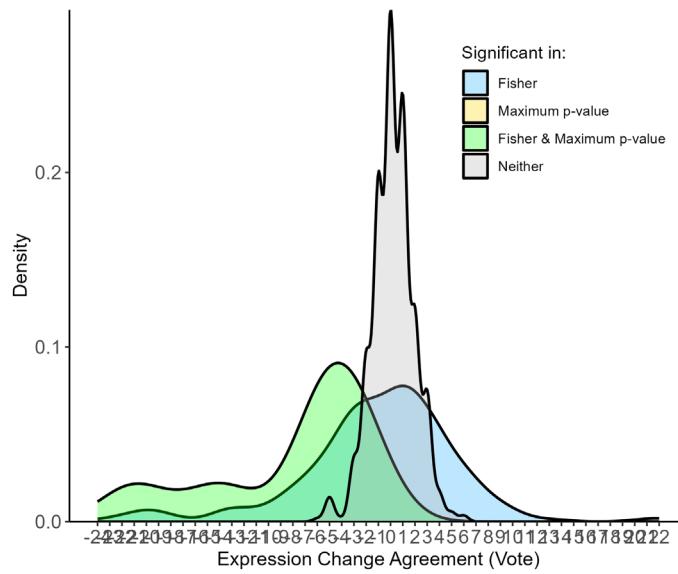
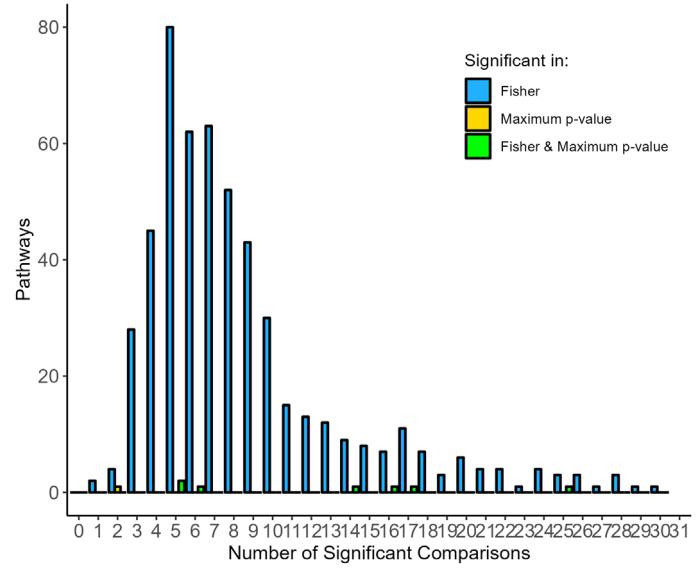
## Treated vs Untreated : Rat Stress [4]



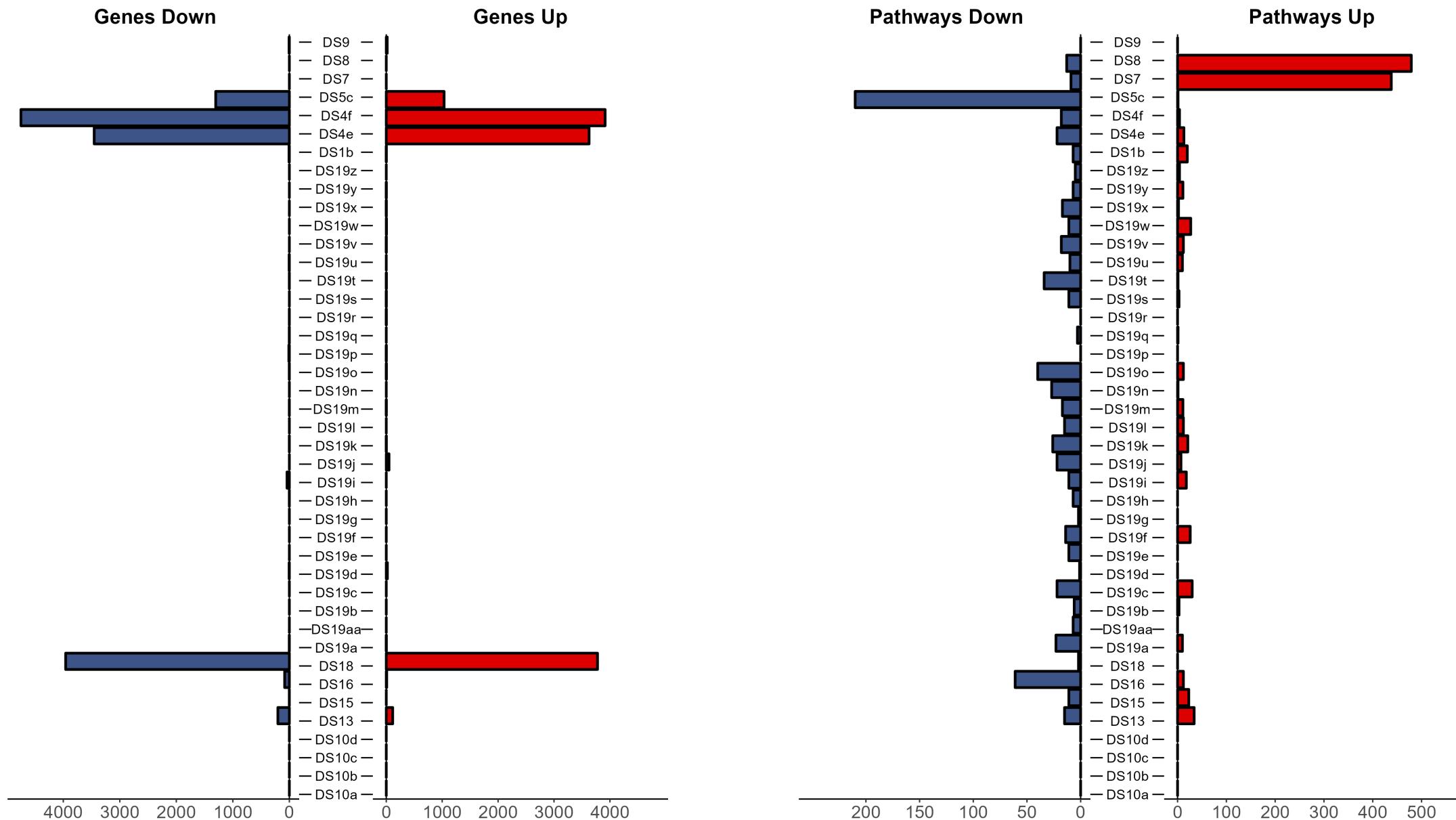
# Treated vs Untreated : Mouse Stress [7]



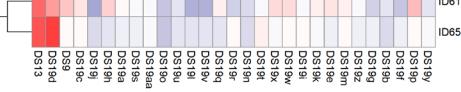
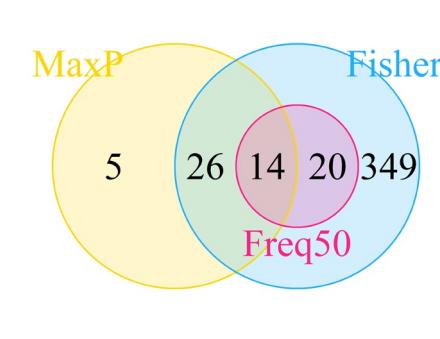
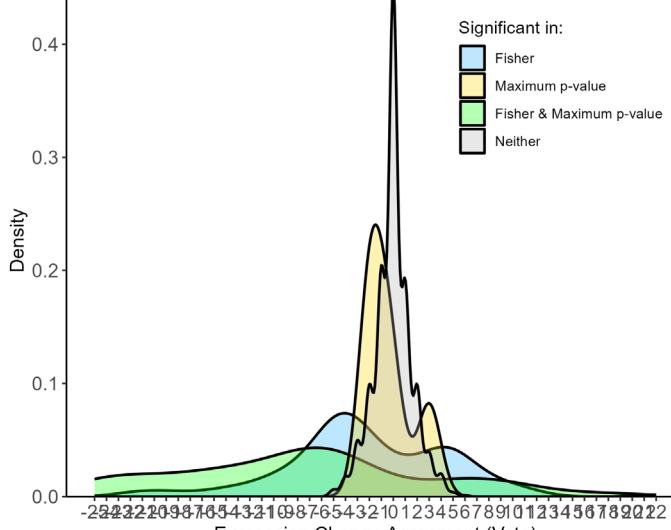
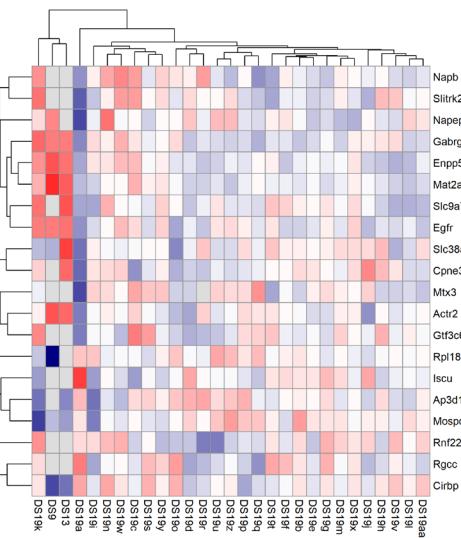
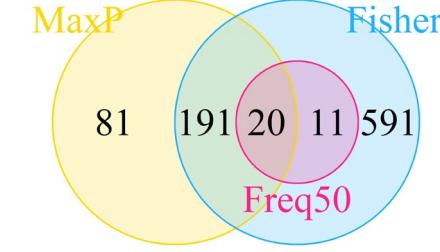
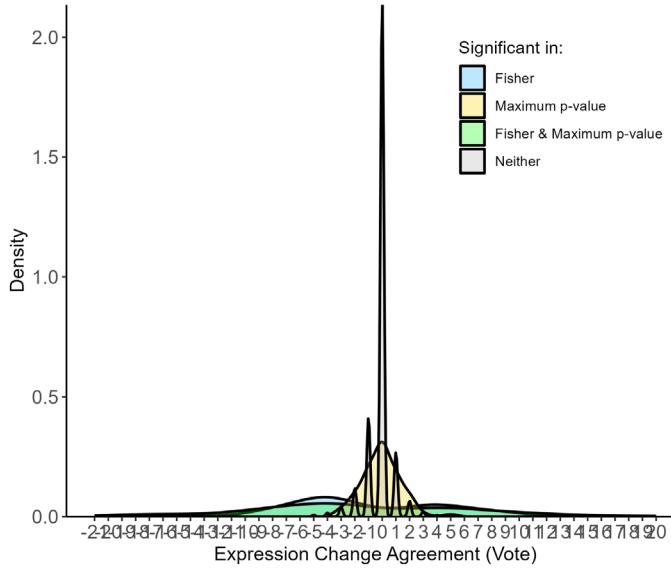
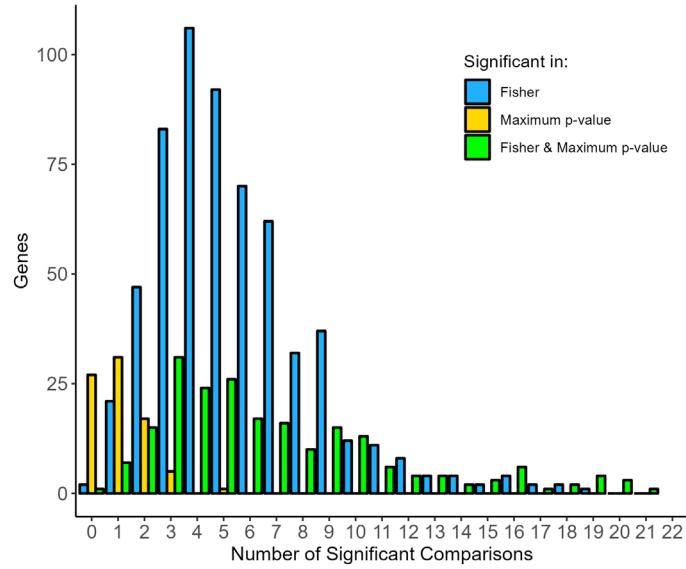
## Treated vs Untreated : No Stress [42]



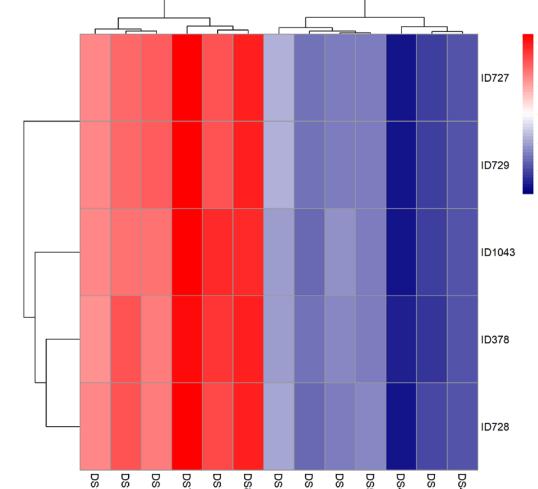
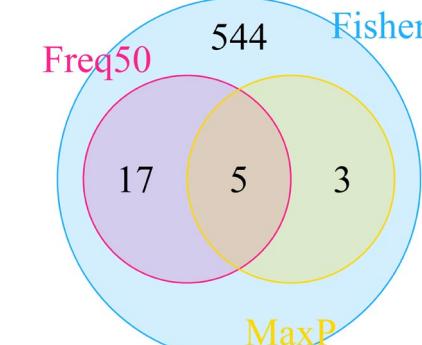
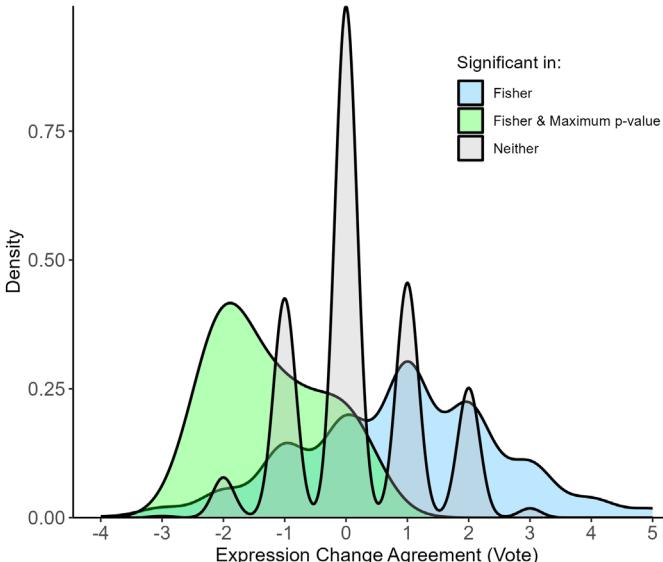
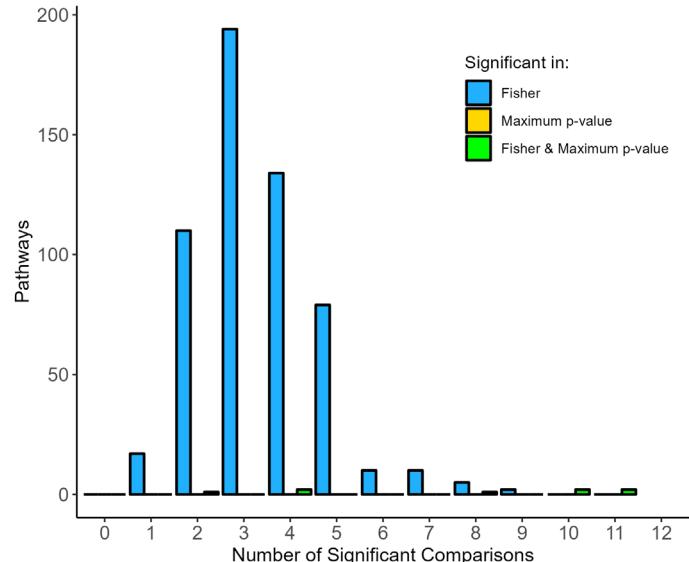
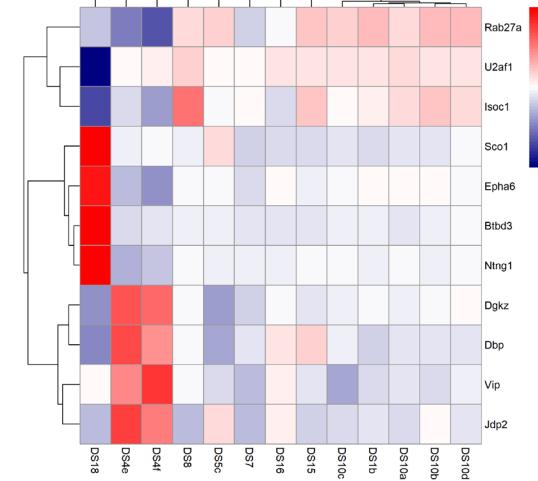
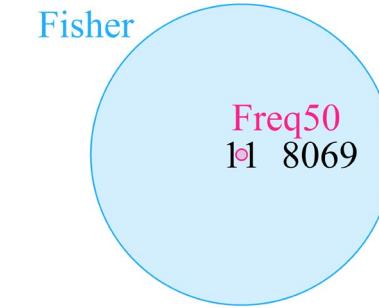
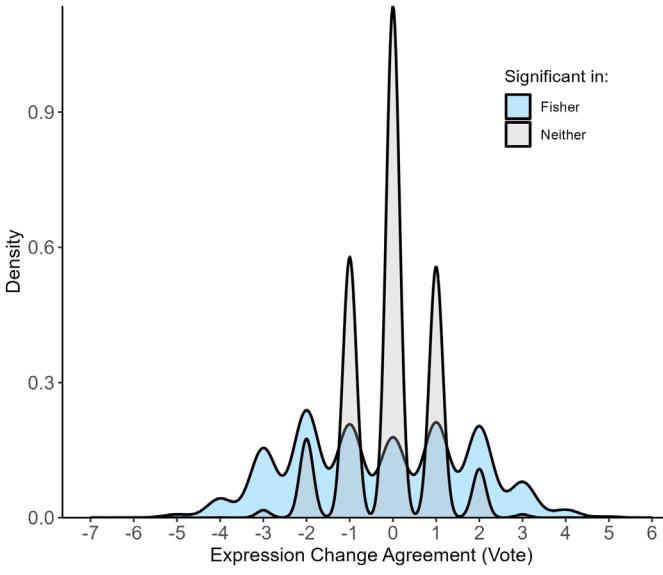
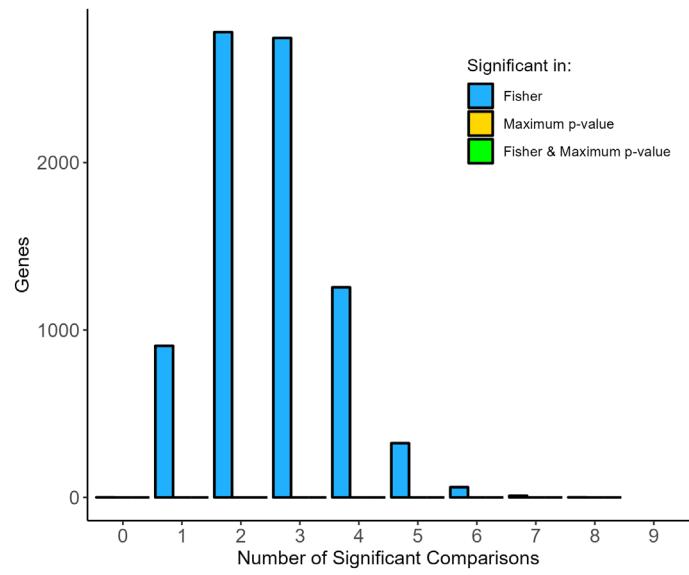
## Treated vs Untreated : No Stress [42]



## Treated vs Untreated : Rat No Stress [29]

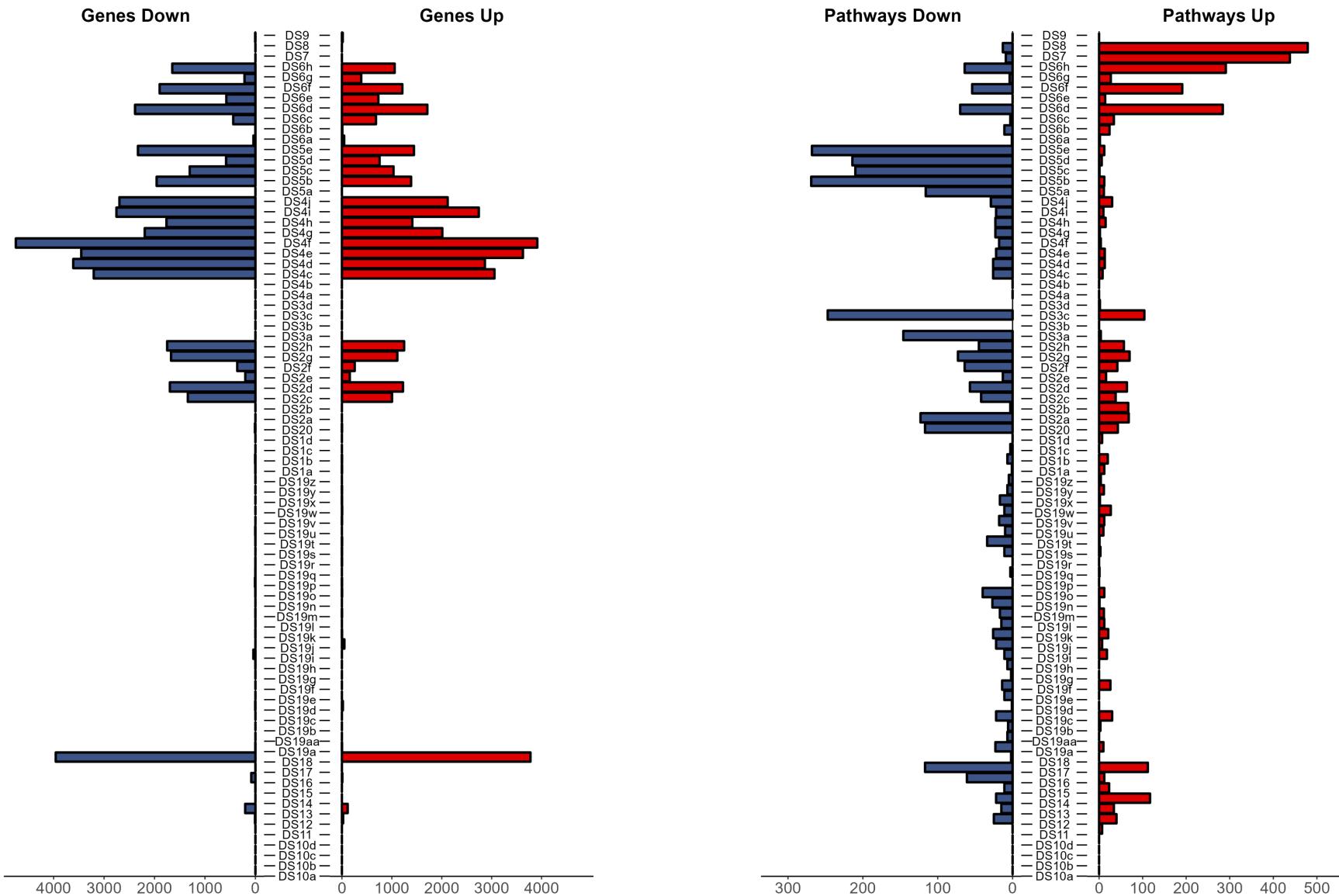


## Treated vs Untreated : Mouse No Stress [13]

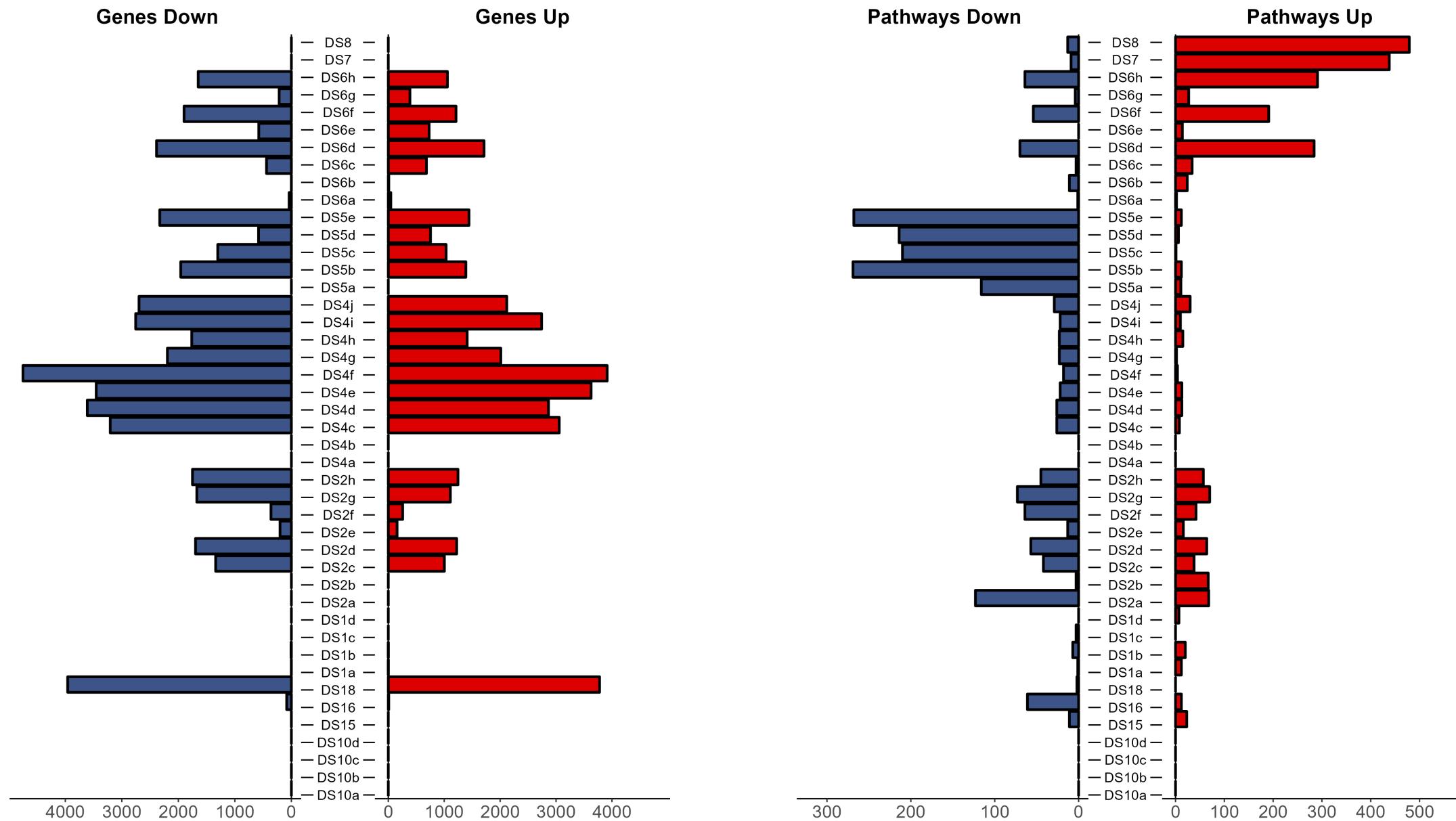


# Additional Gene and Pathway Bar Graphs

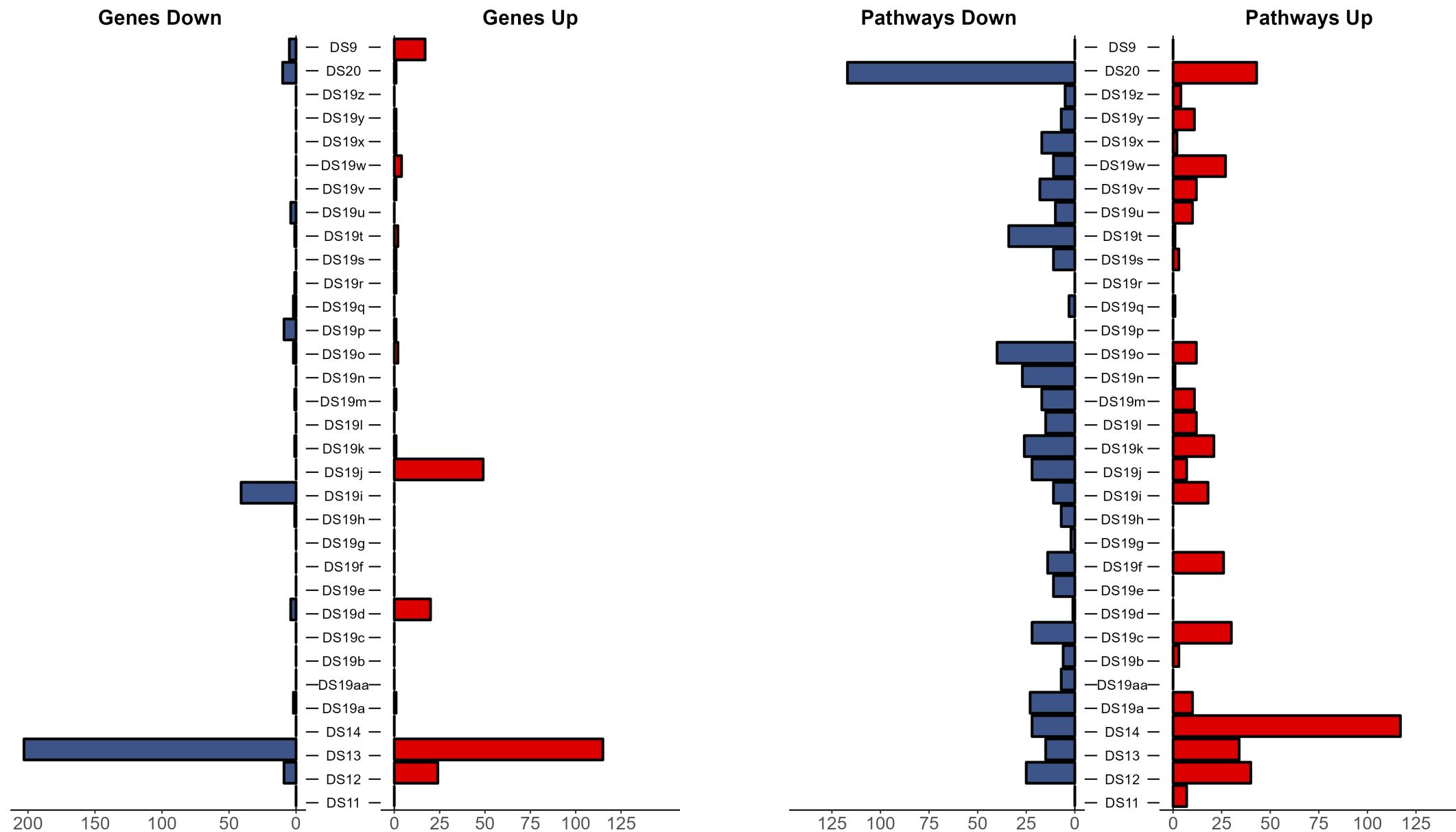
# All Comparisons [82]



# All Mouse Comparisons [44]

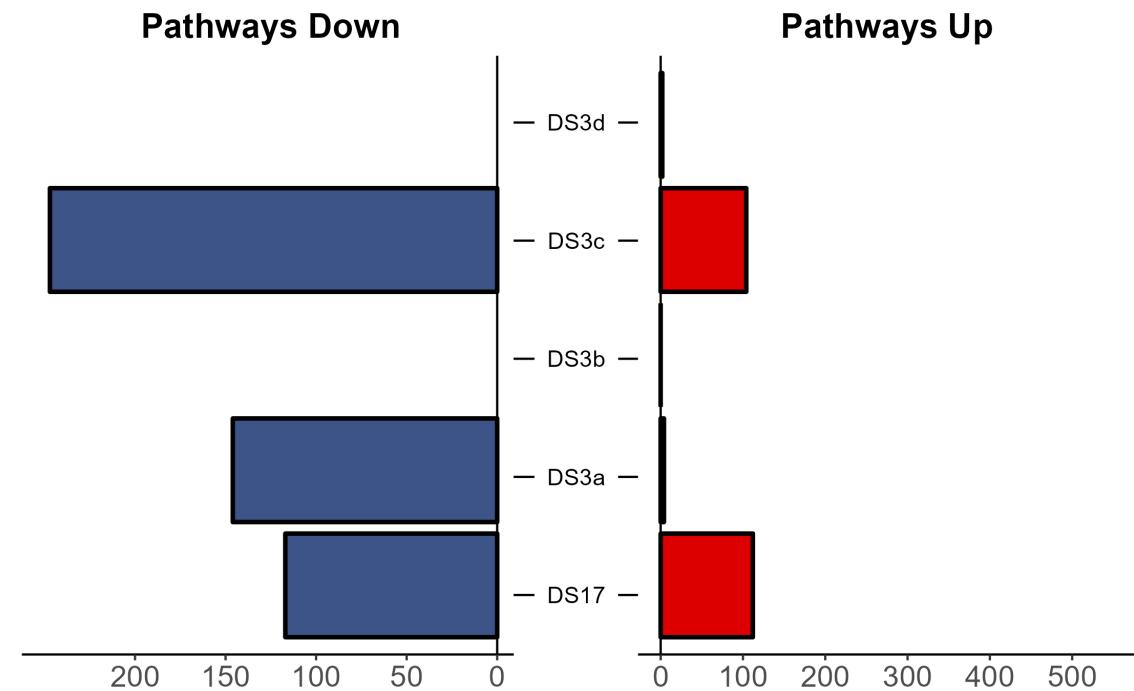


## All Rat Comparisons [33]



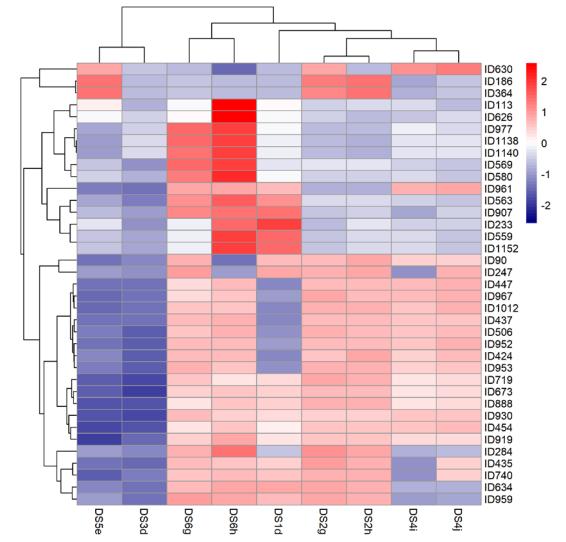
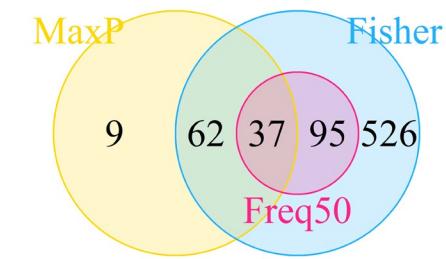
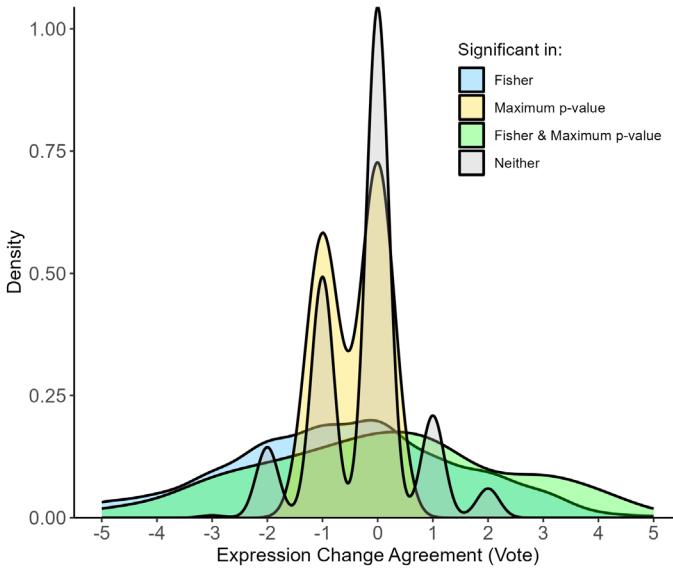
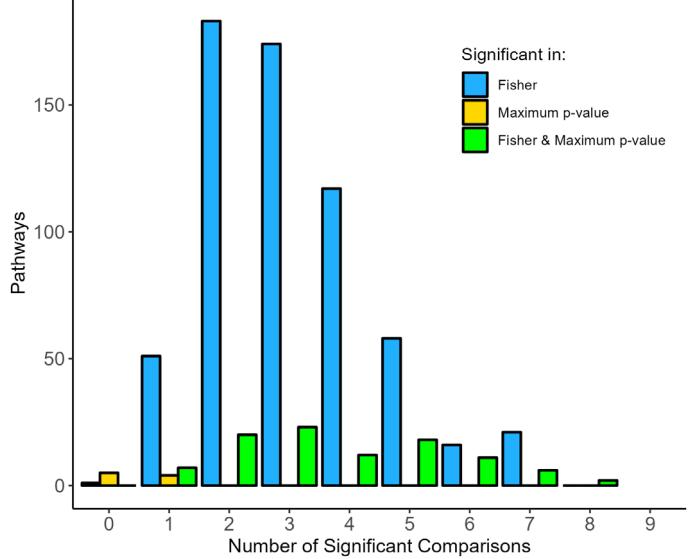
## All Human Comparisons [5]

**No significant differentially regulated genes in the human comparisons**

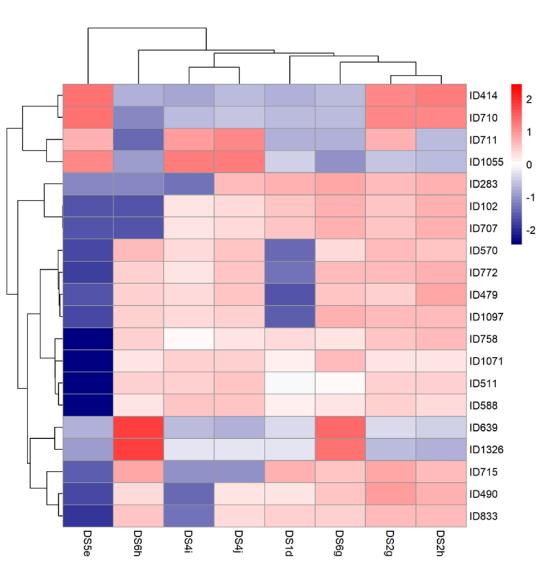
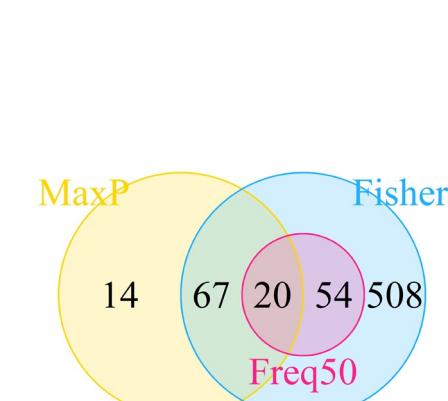
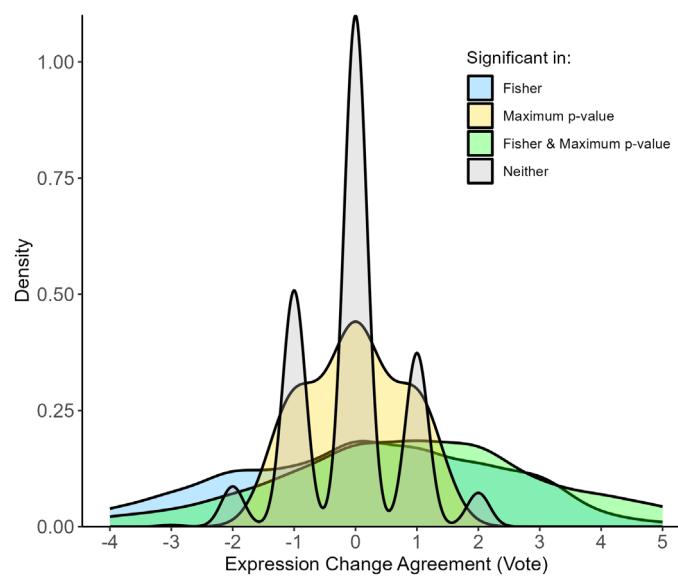
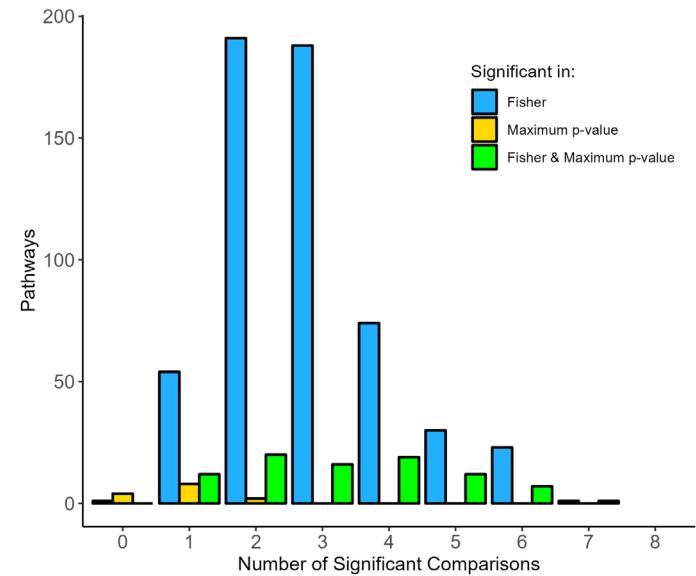
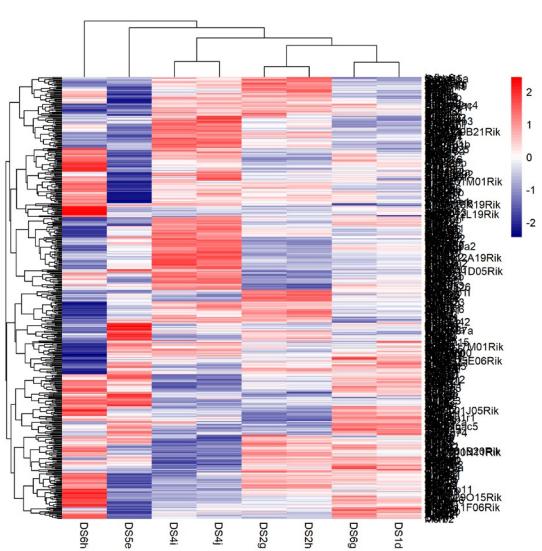
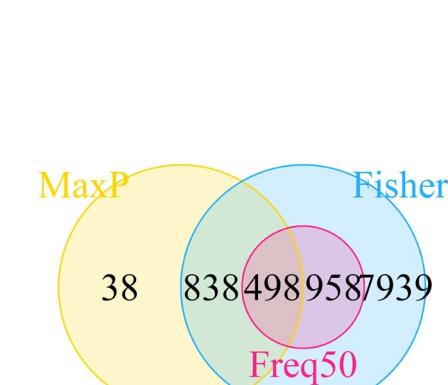
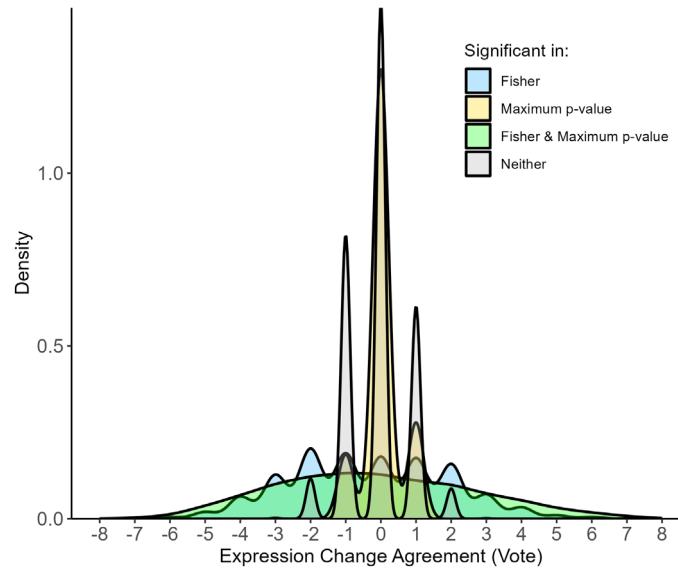
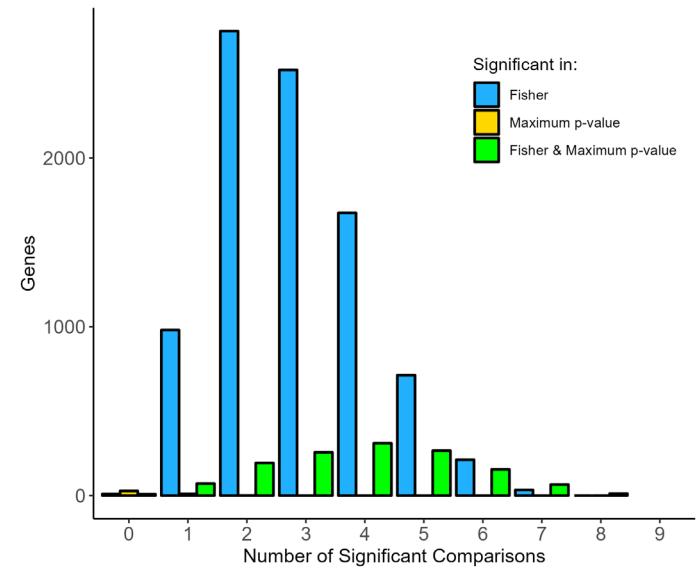


# Additional MetaDE Analyses

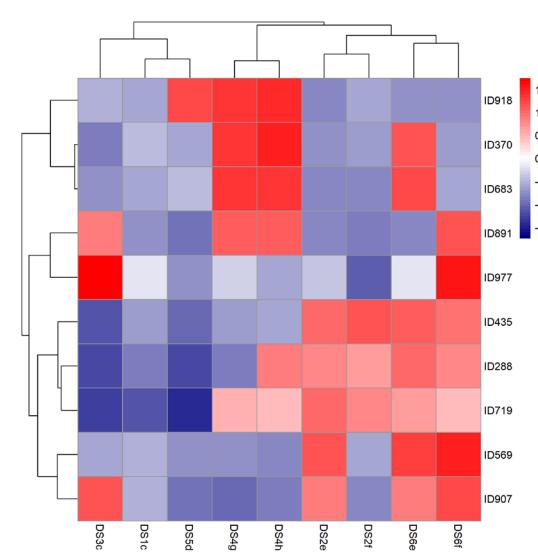
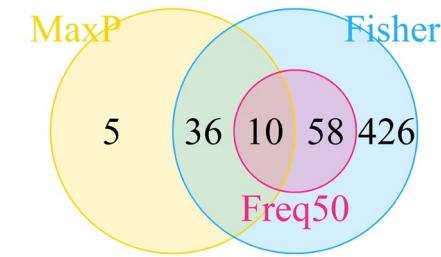
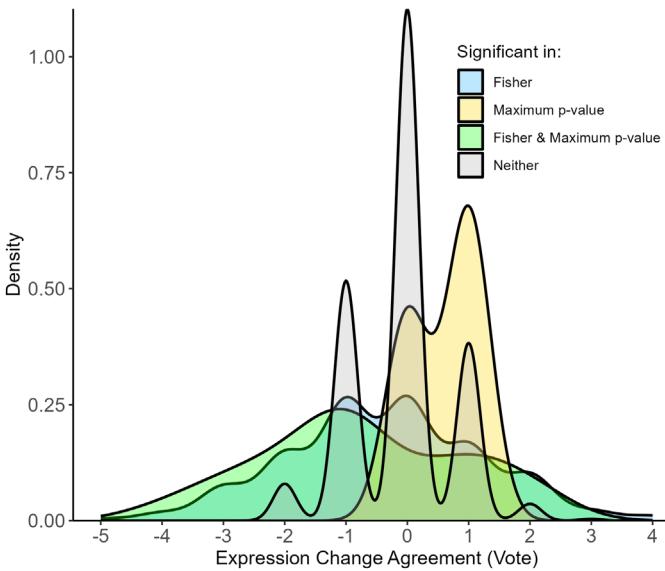
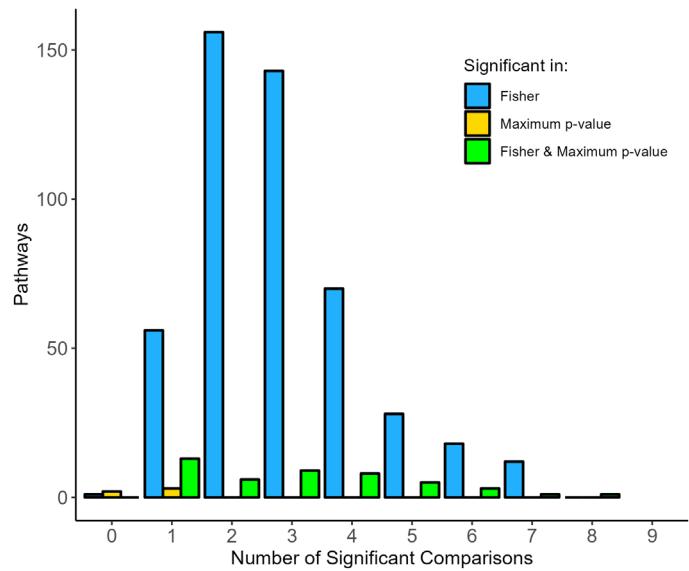
## Responder vs Control : Total Comparisons [9]



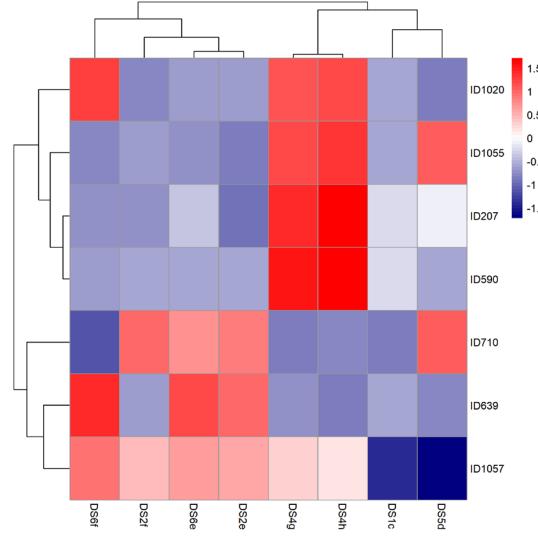
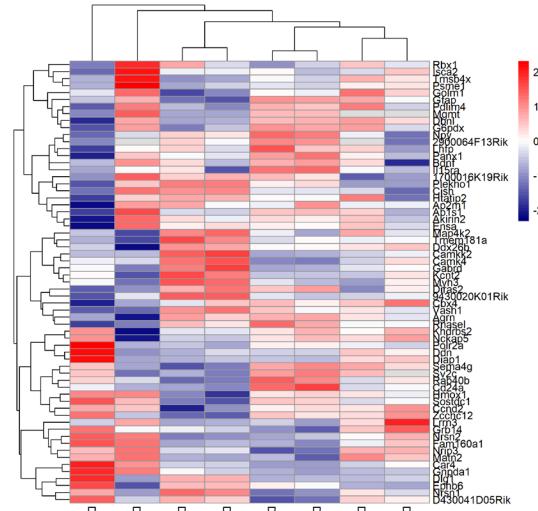
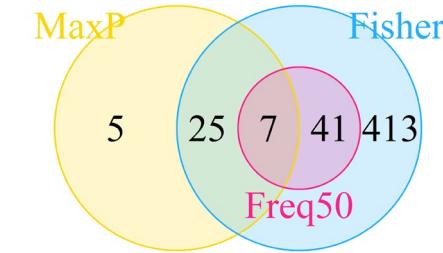
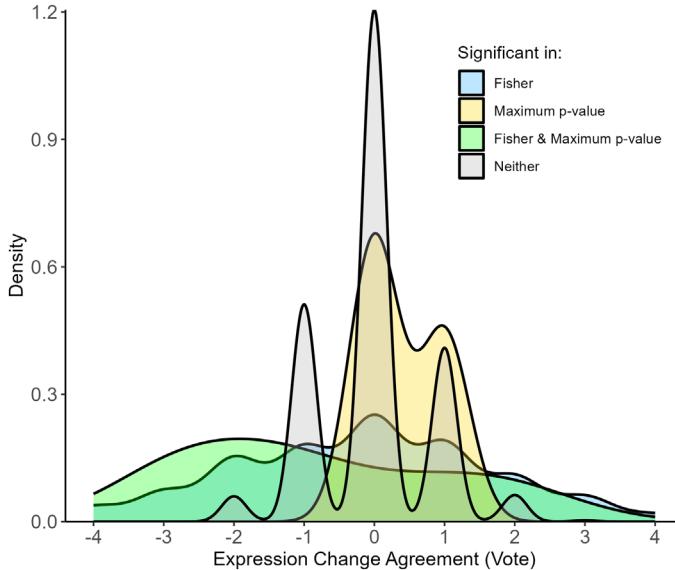
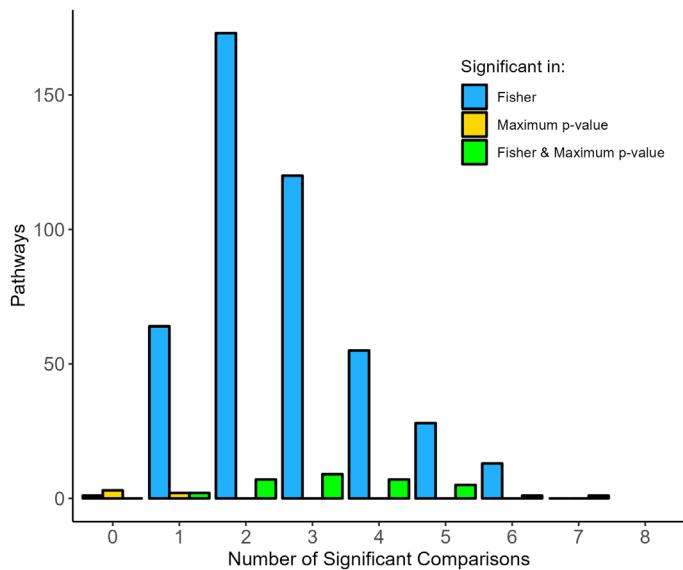
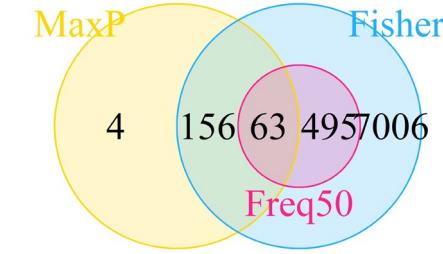
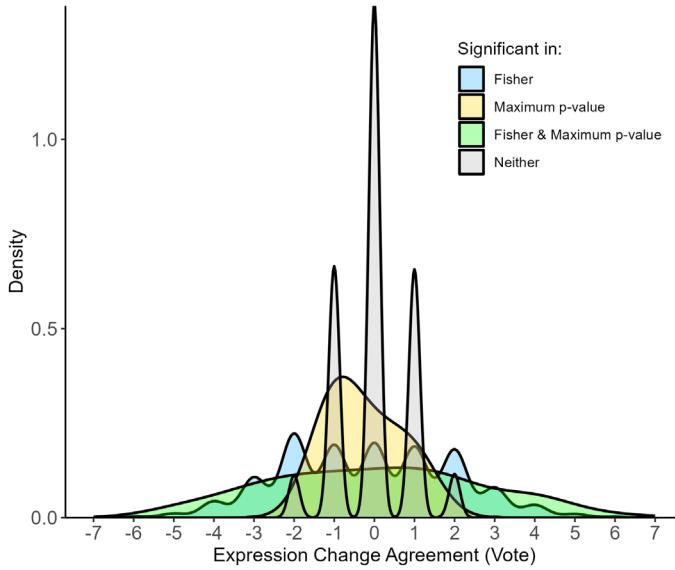
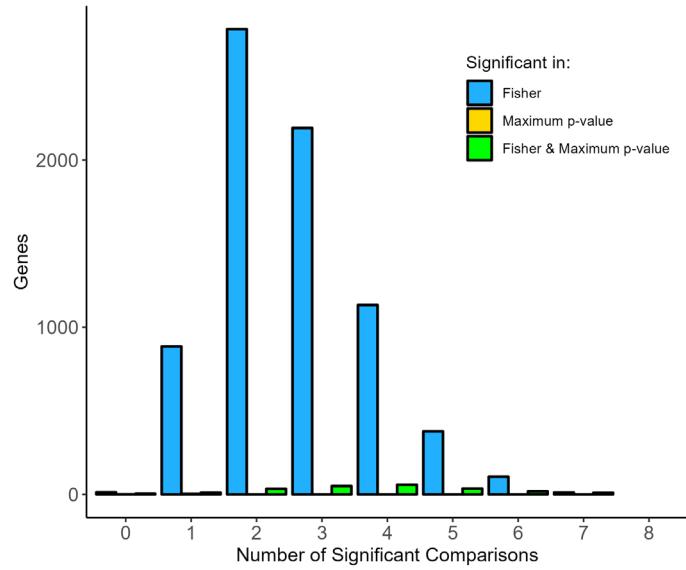
## Responder vs Control : Mouse [8]



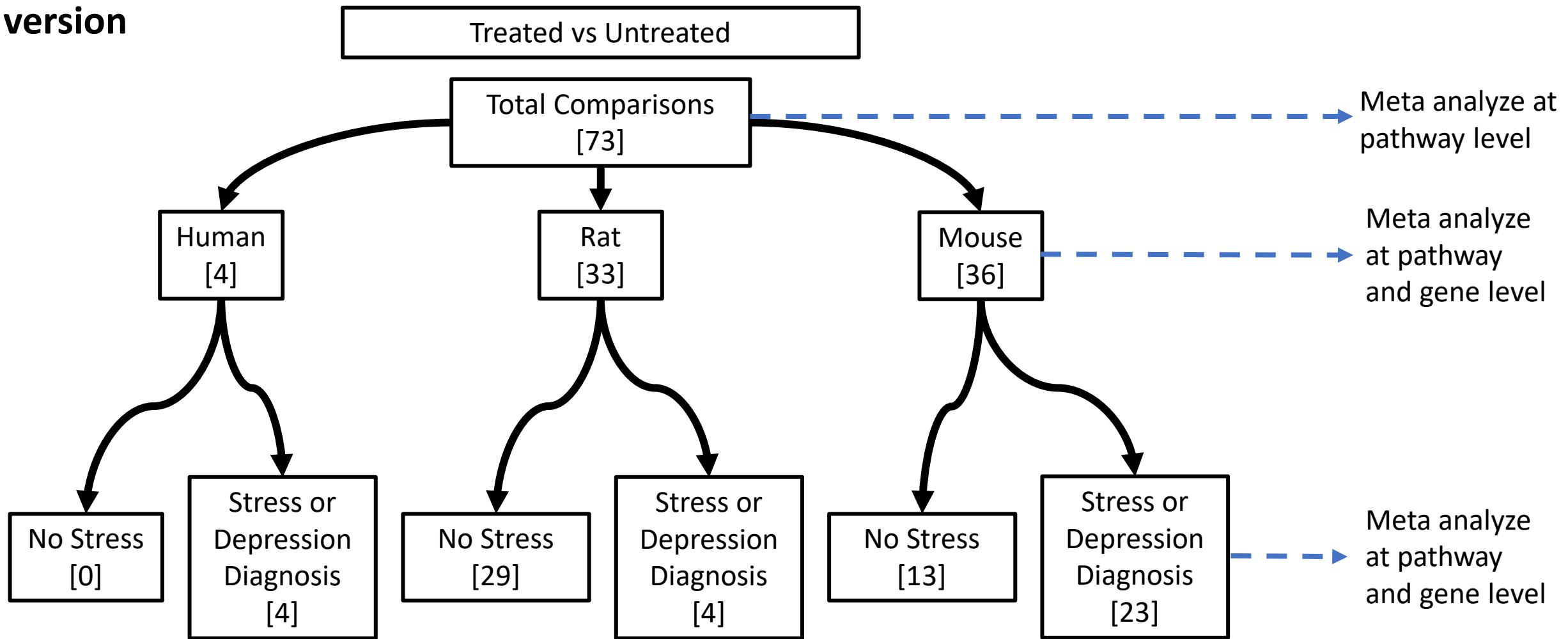
## Resistant vs Control : Total Comparisons [9]



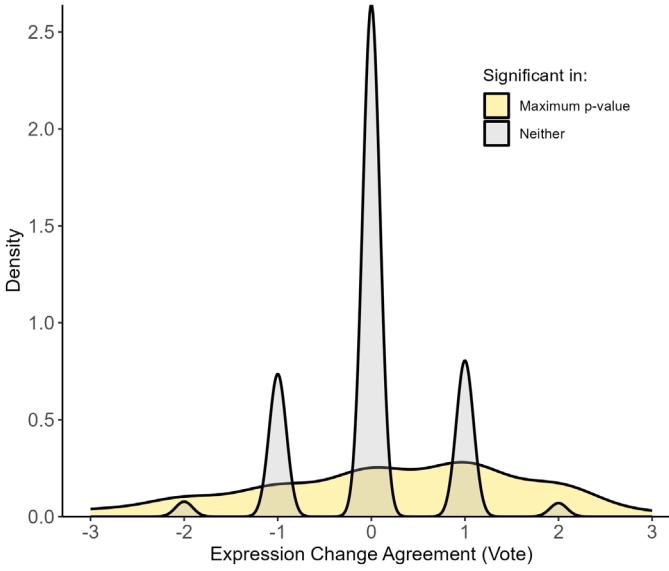
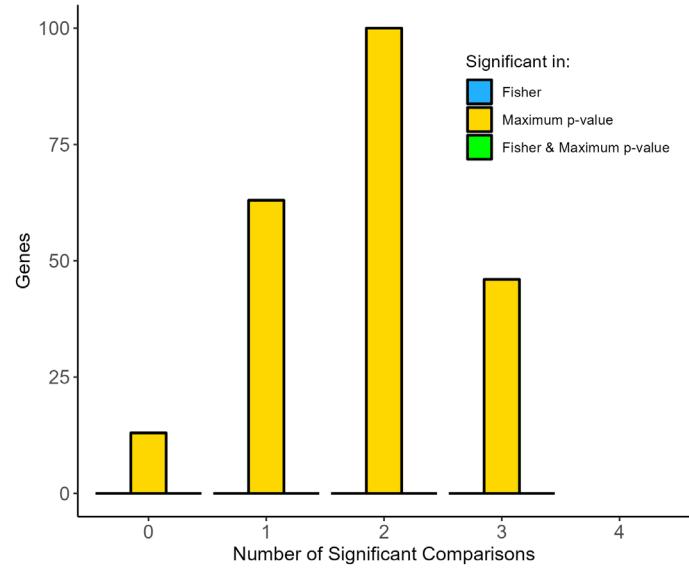
## Resistant vs Control : Mouse [8]



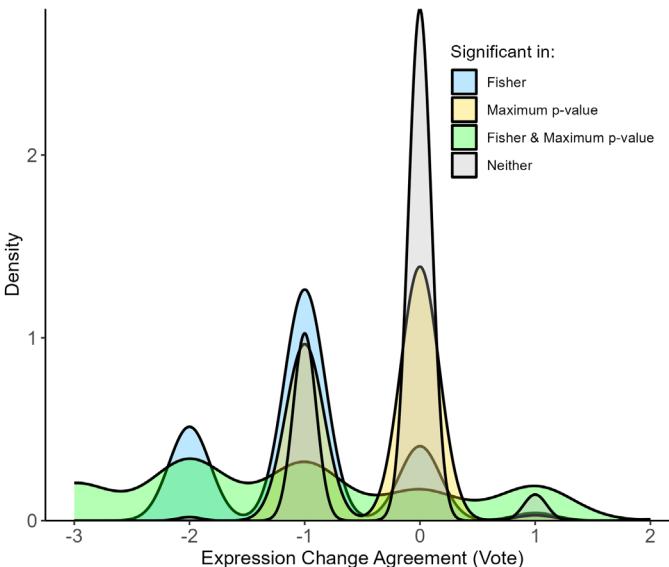
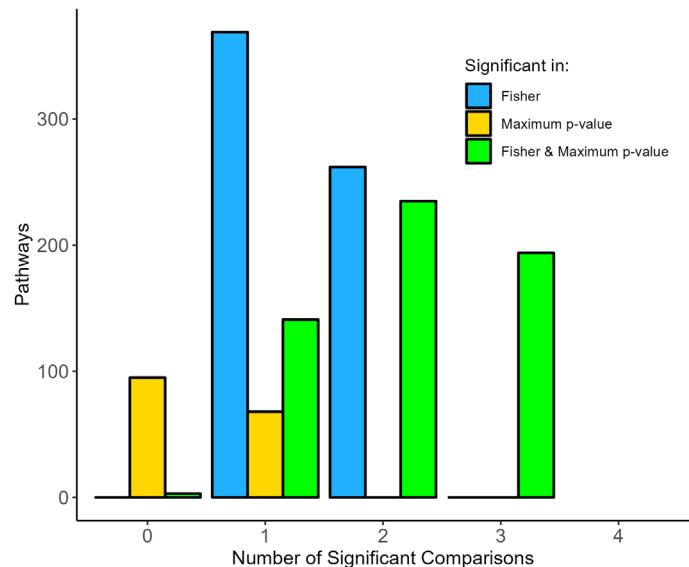
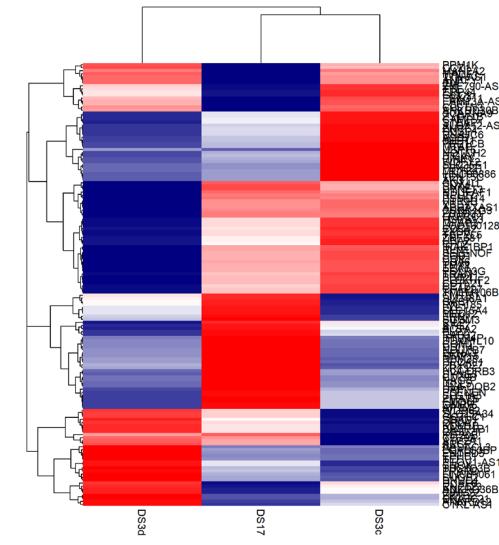
# Alternative version



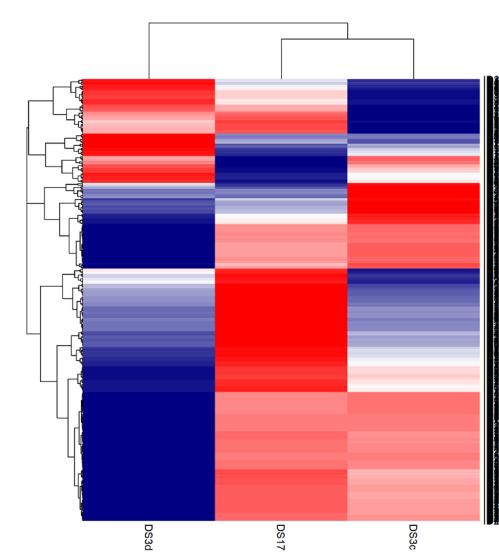
# All Treated vs Untreated : Human [3]



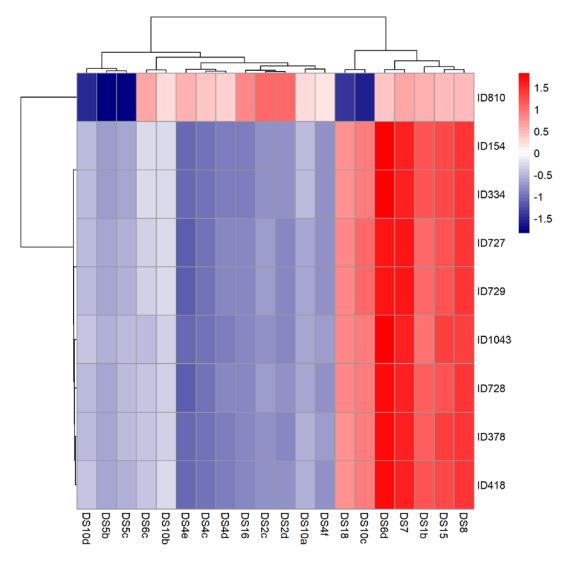
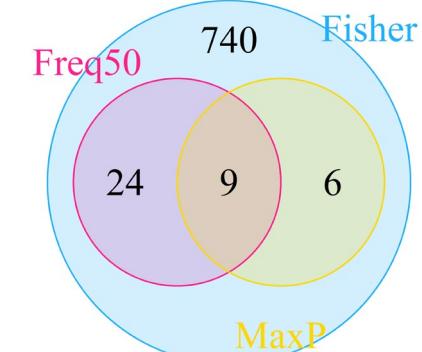
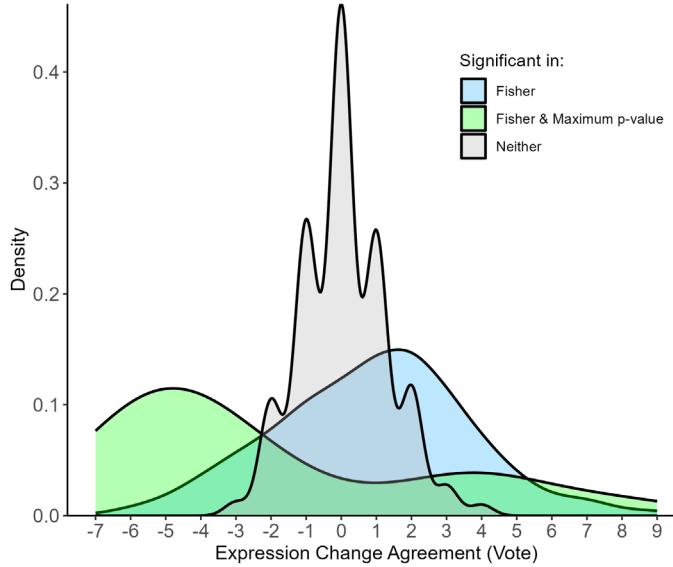
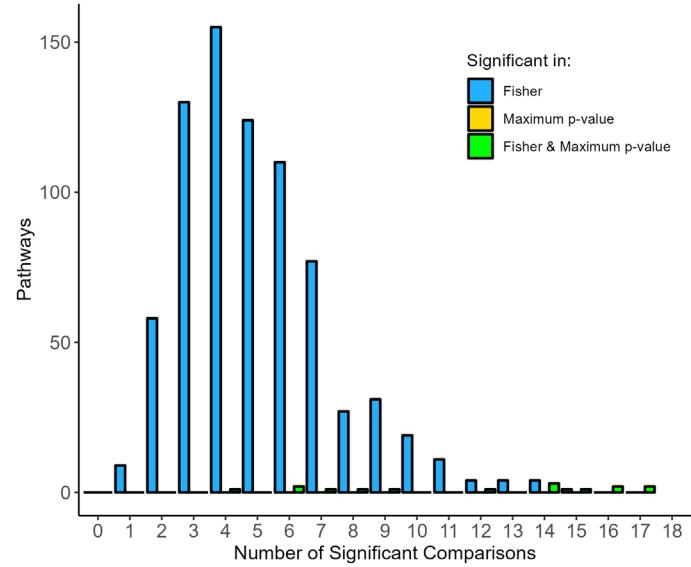
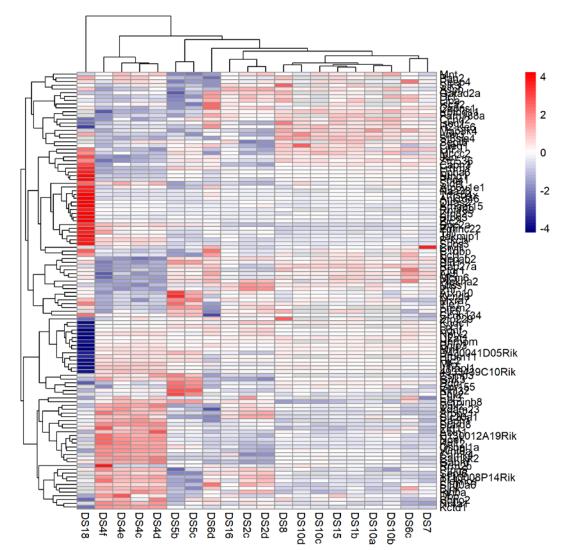
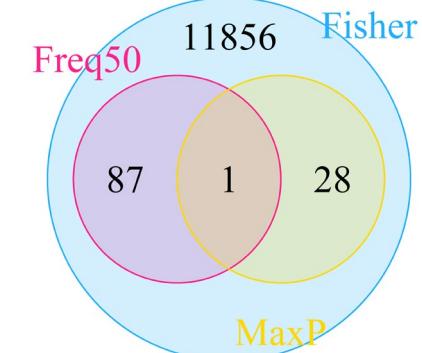
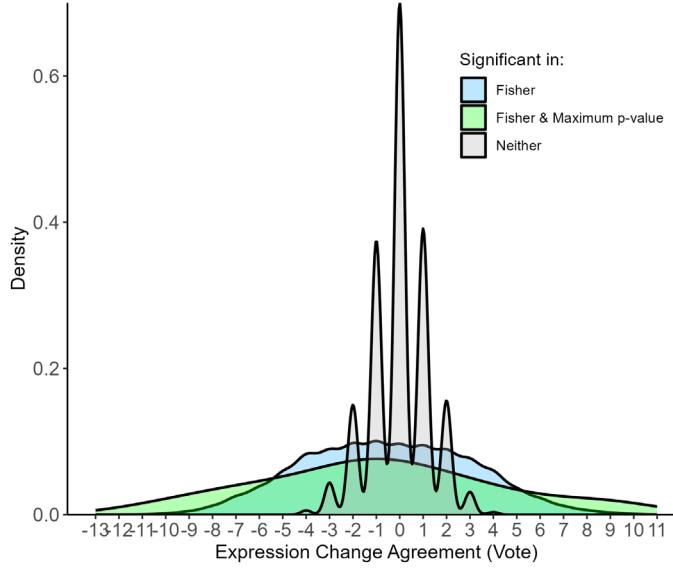
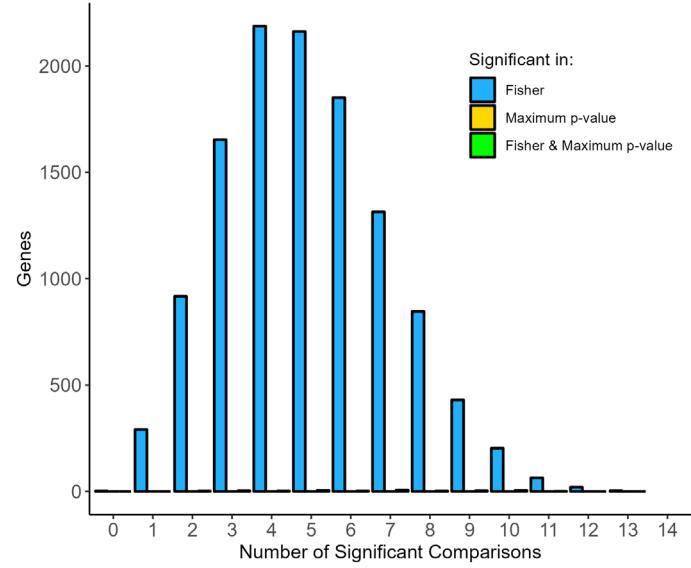
937  
146  
76  
**Freq50**  
**MaxP**



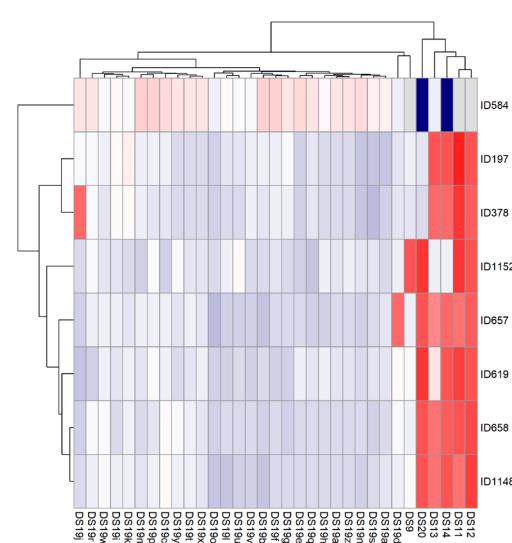
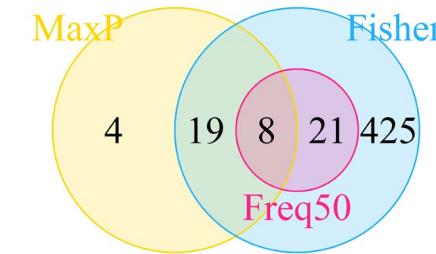
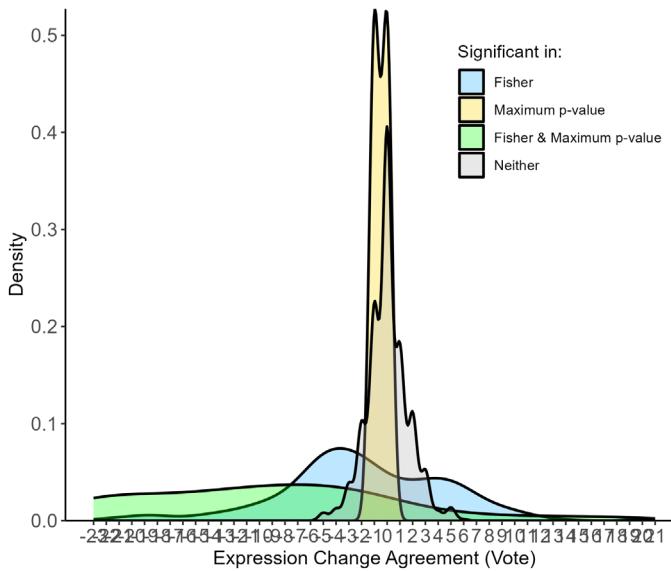
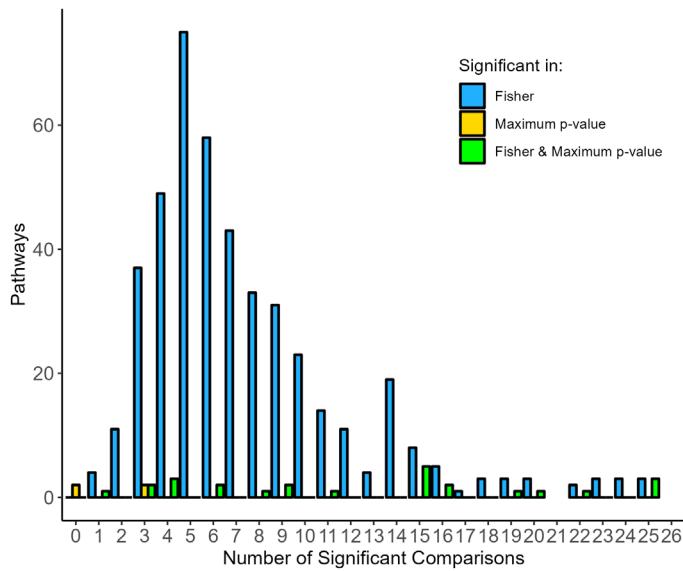
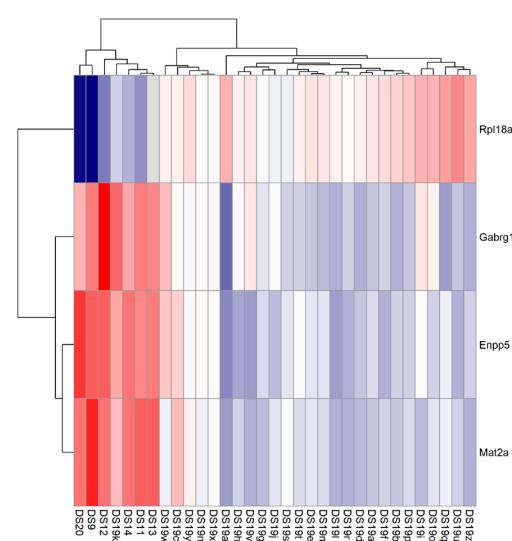
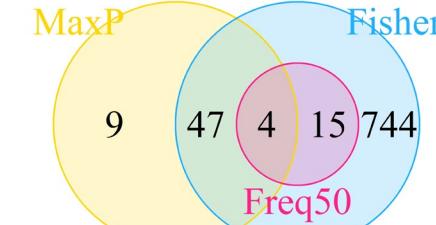
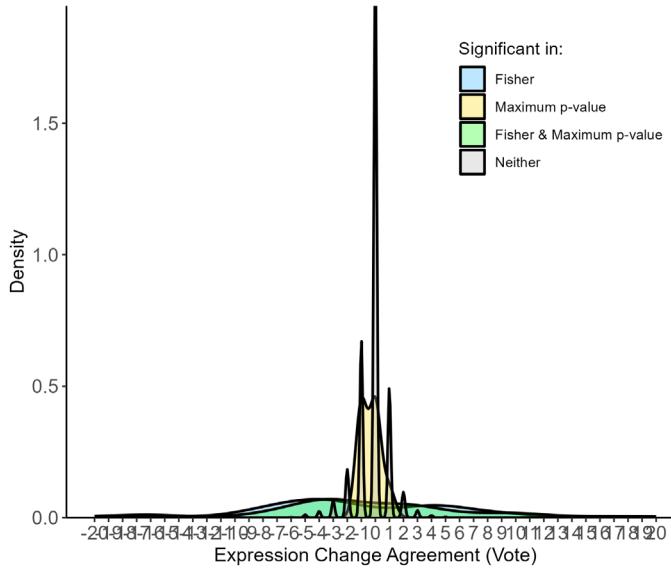
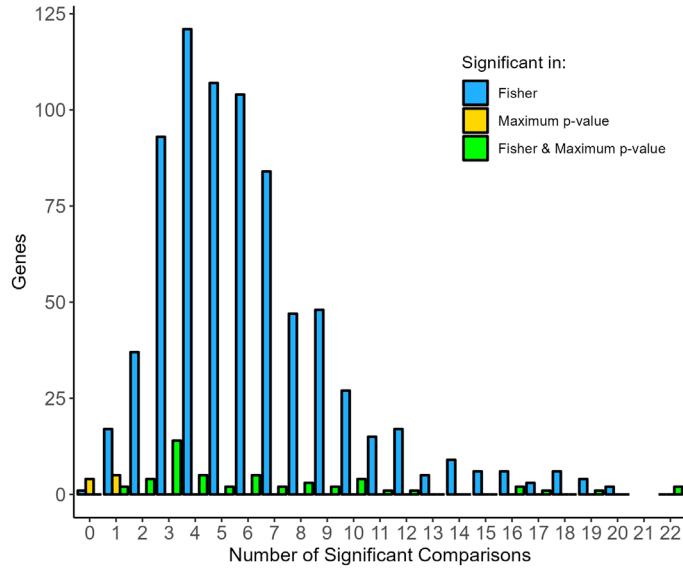
163  
144  
369  
429  
262  
16  
**MaxP**  
**Freq50**  
**Fisher**



# All Treated vs Untreated : Mouse [20]

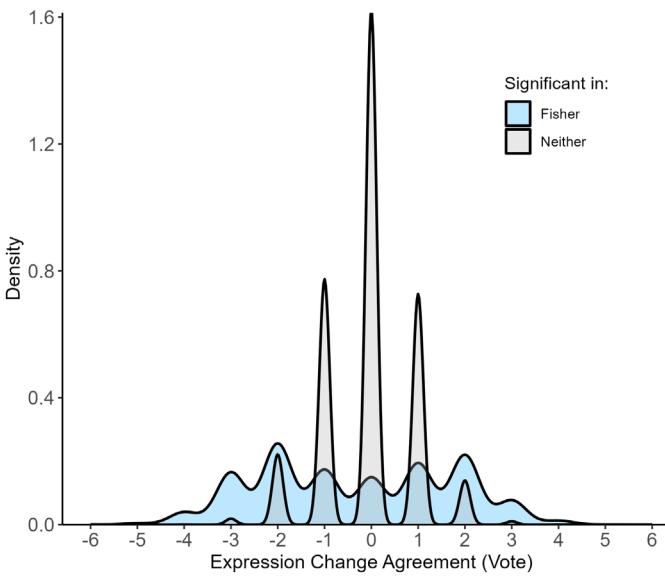
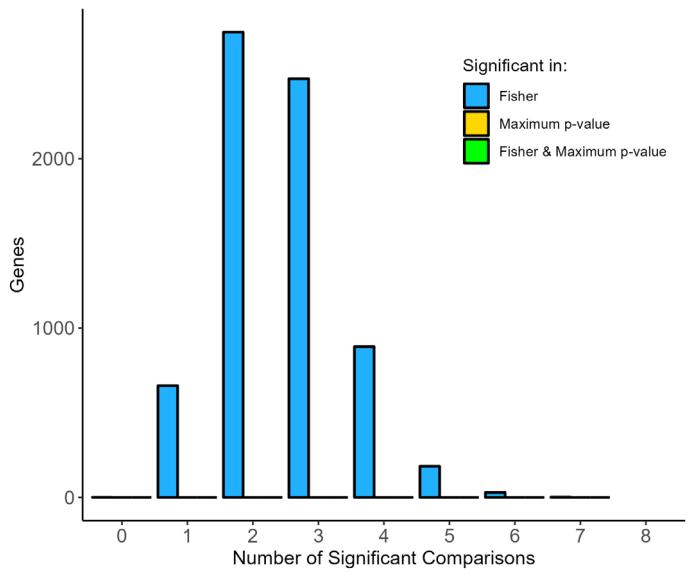


# All Treated vs Untreated : Rat [33]

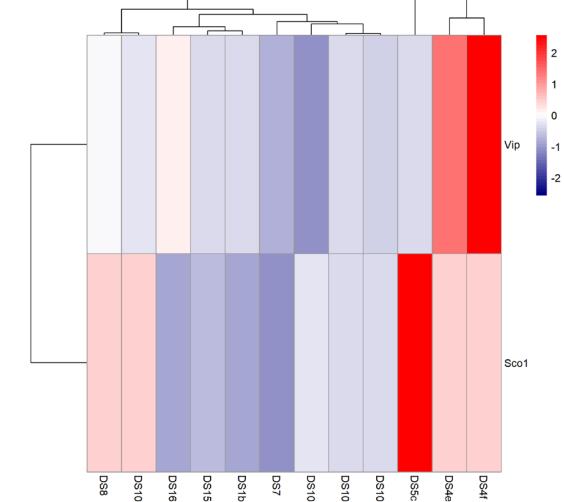


# Sensitivity Analyses

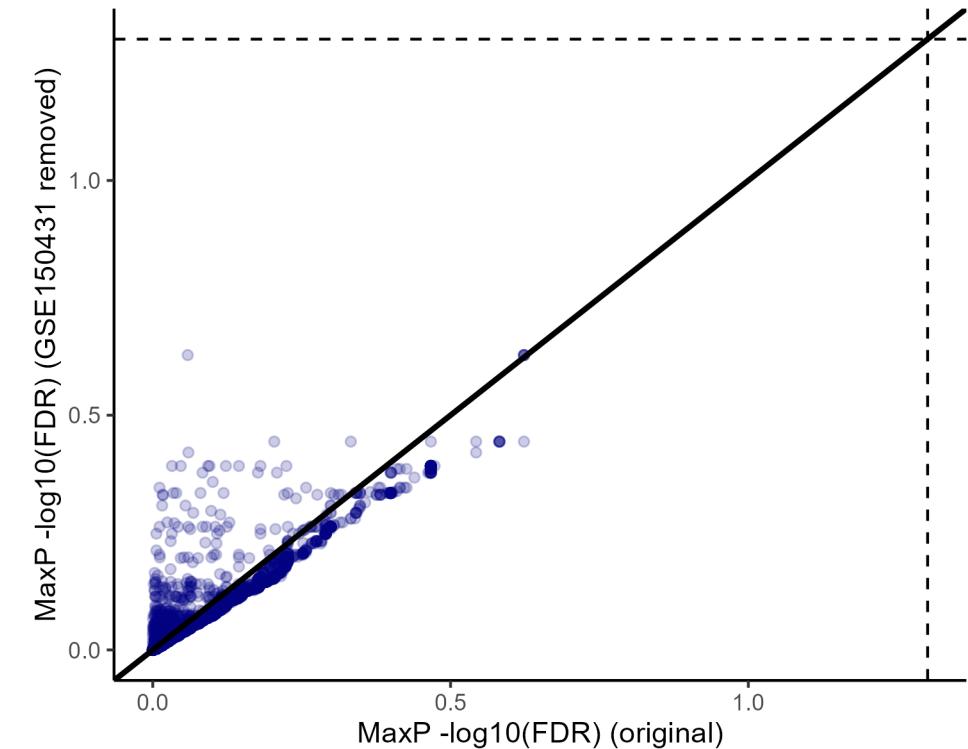
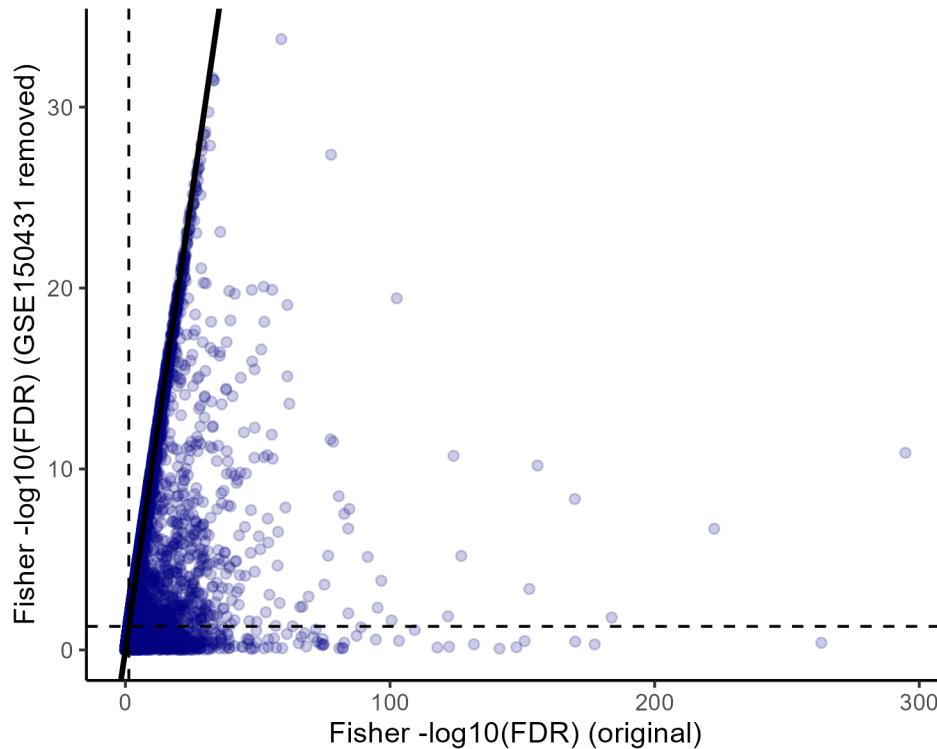
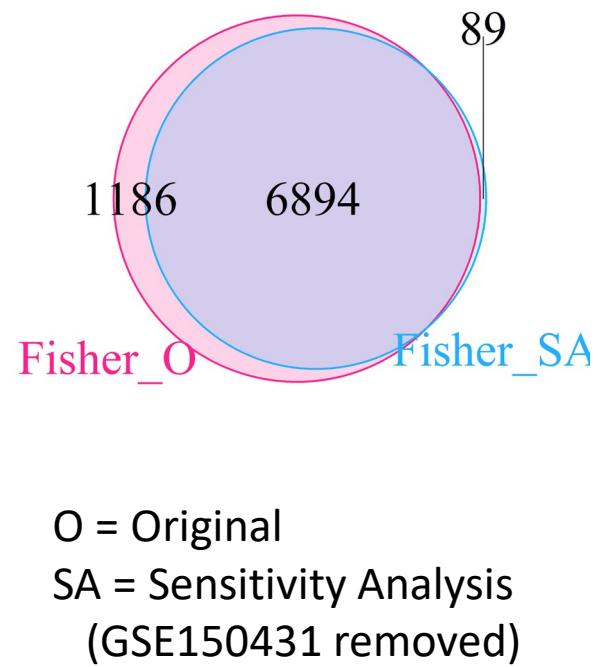
## Treated vs Untreated : Mouse No Stress w/o GSE150431 [12]



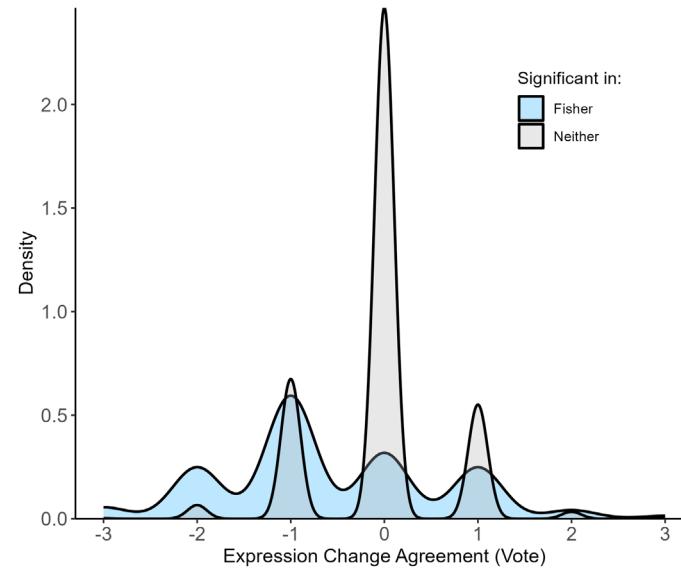
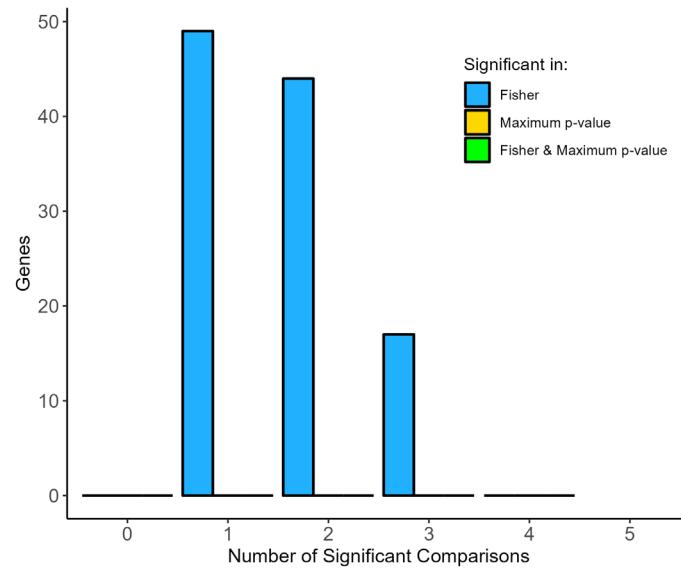
Fisher  
Freq50  
2 6983



### Treated vs Untreated : Mouse No Stress w/o GSE150431 [12]

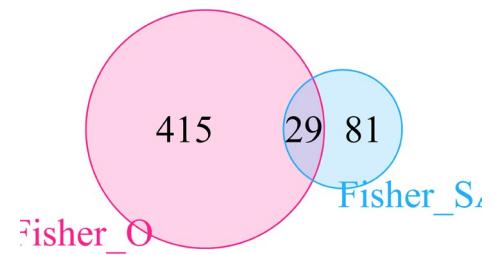


## Treated vs Untreated : Rat w/o GSE194289 [6]



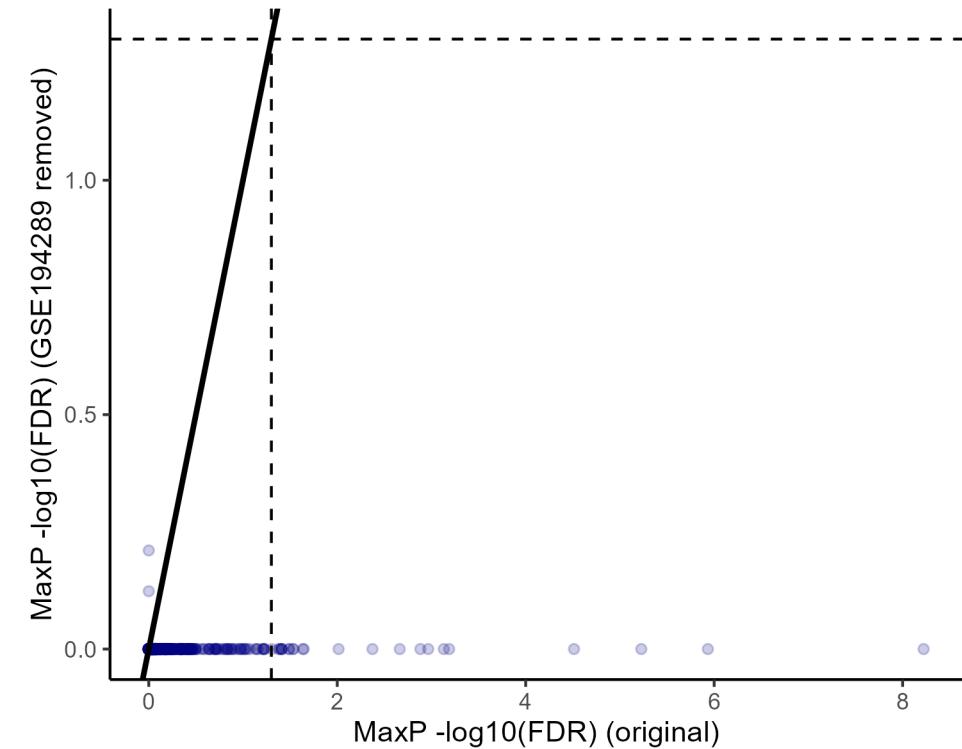
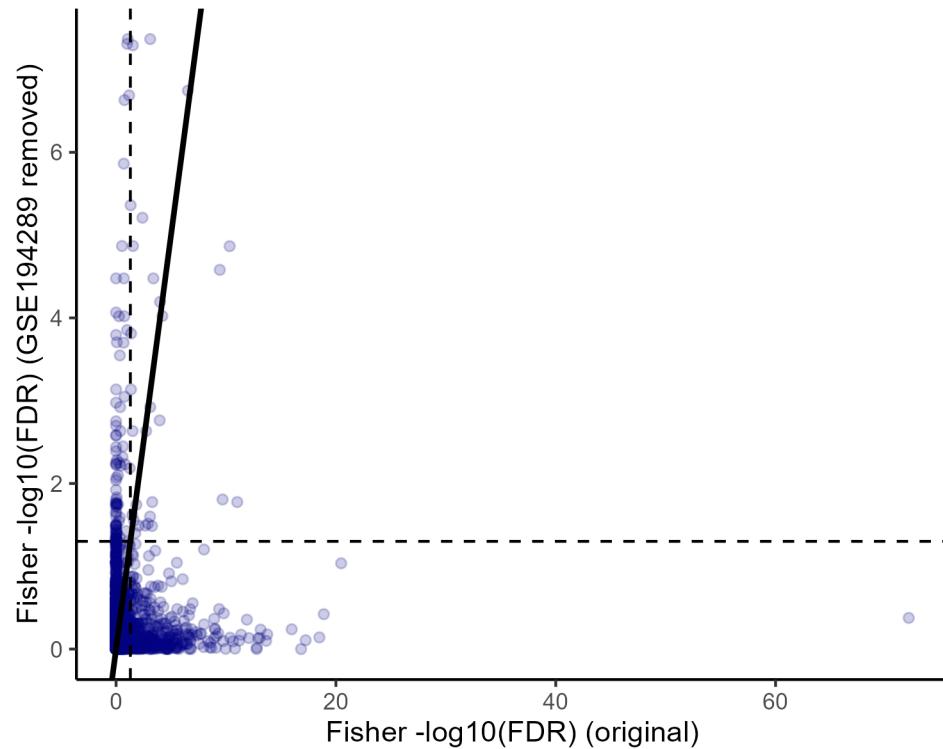
Fisher  
110  
Freq50  
0

### Treated vs Untreated : Rat w/o GSE194289 [6]

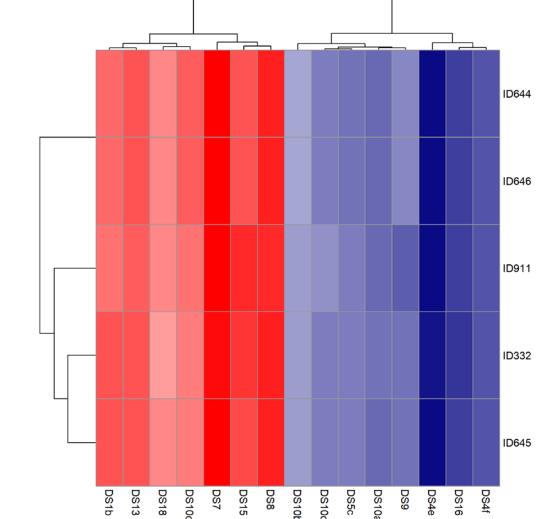
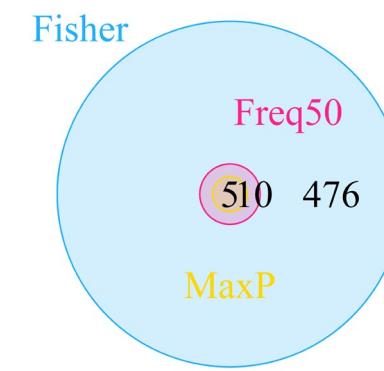
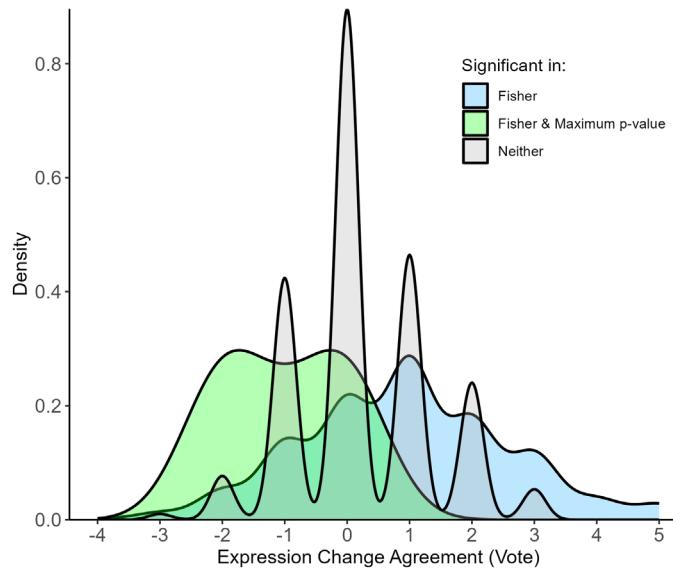
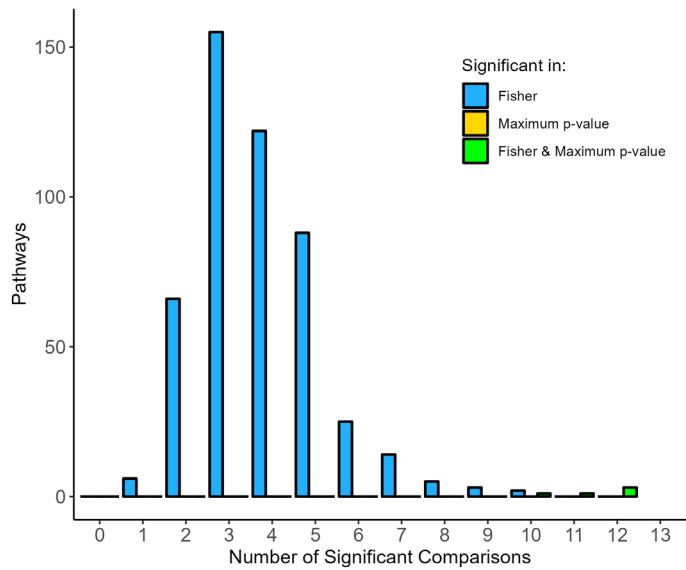


O = Original

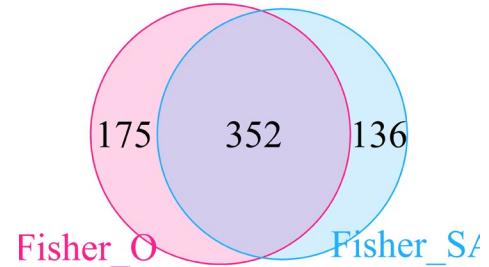
SA = Sensitivity Analysis  
(GSE194289 removed)



## Treated vs Untreated : No Stress w/o GSE194289 [15]

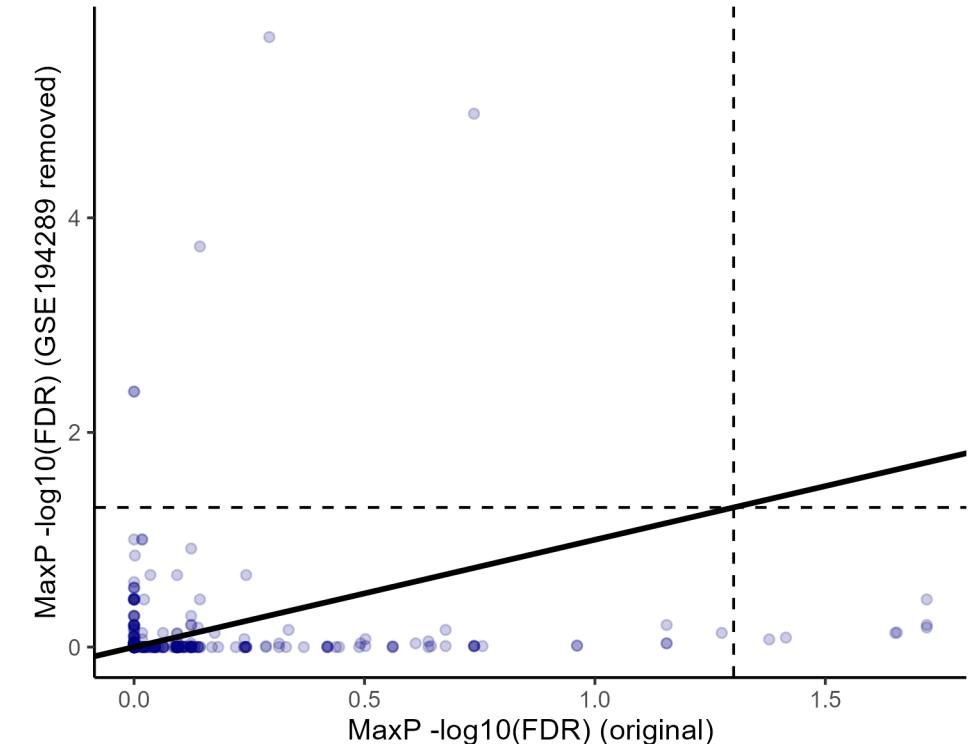
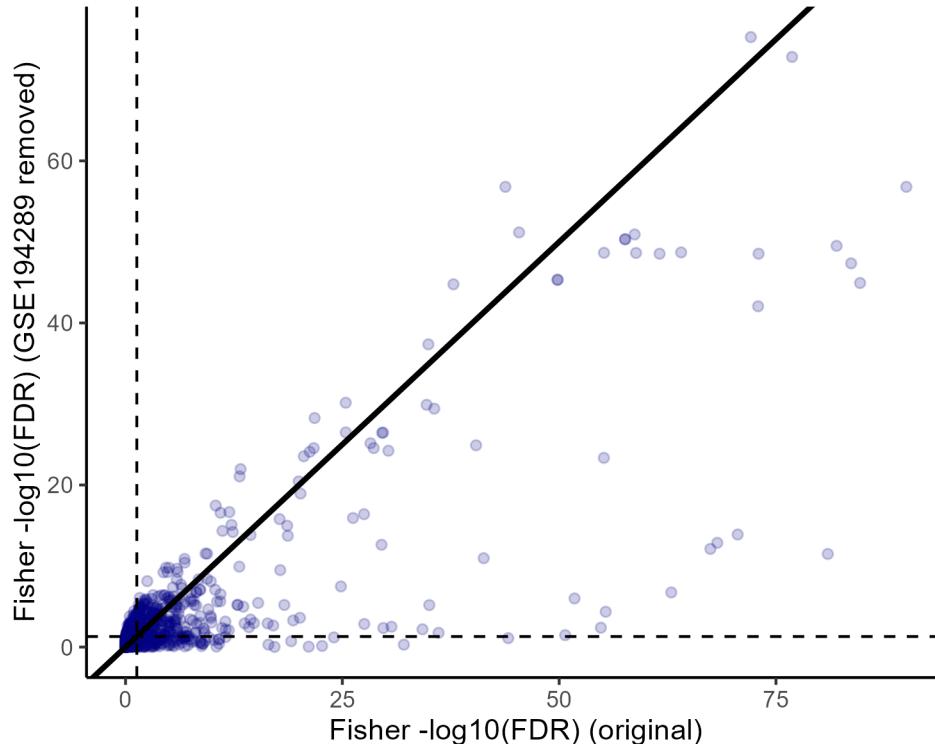


### Treated vs Untreated : No Stress w/o GSE194289 [15]



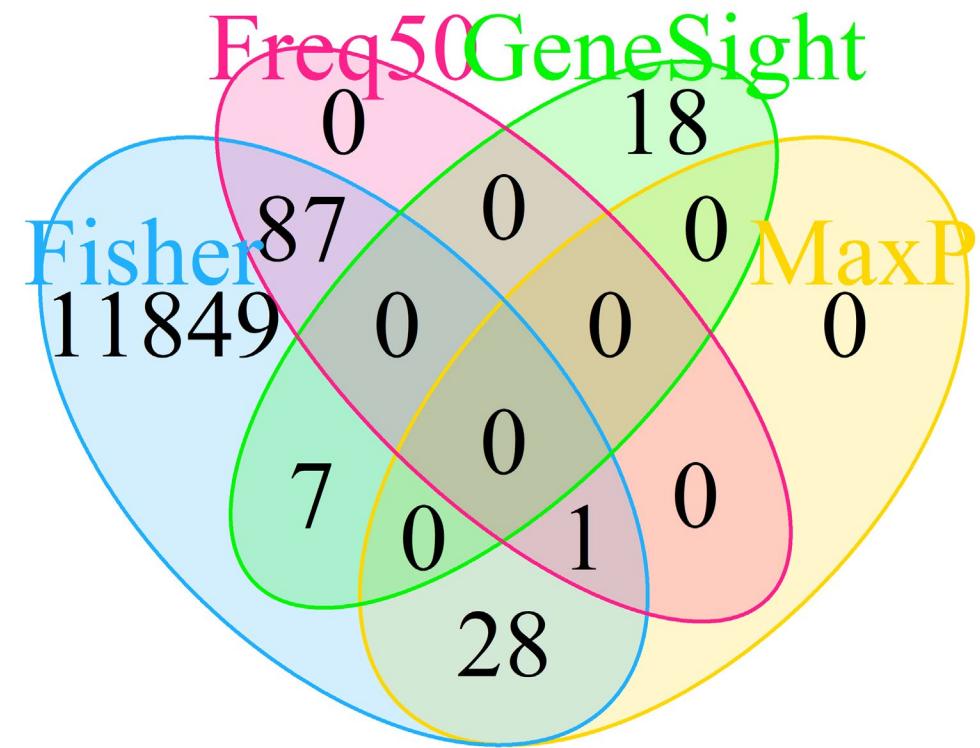
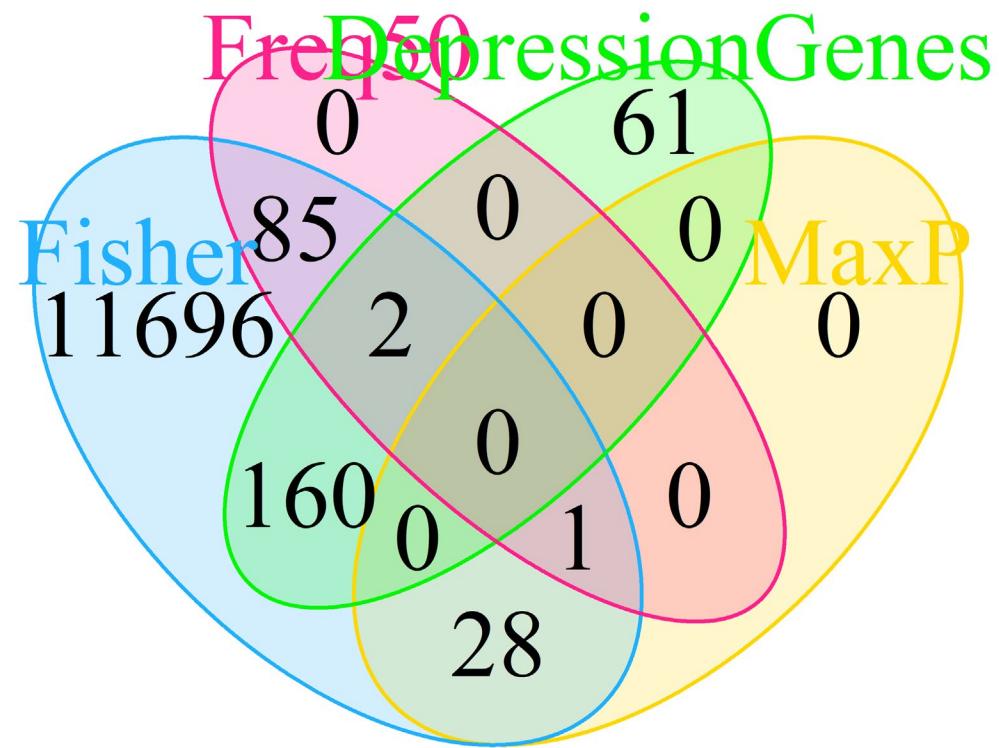
O = Original

SA = Sensitivity Analysis  
(GSE194289 removed)

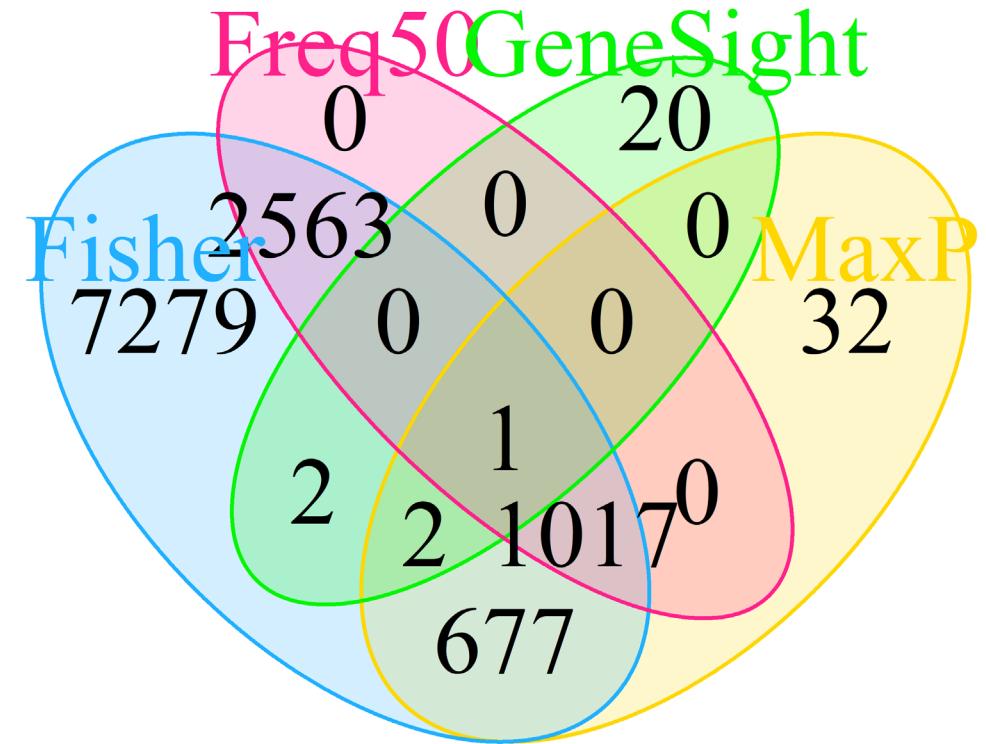
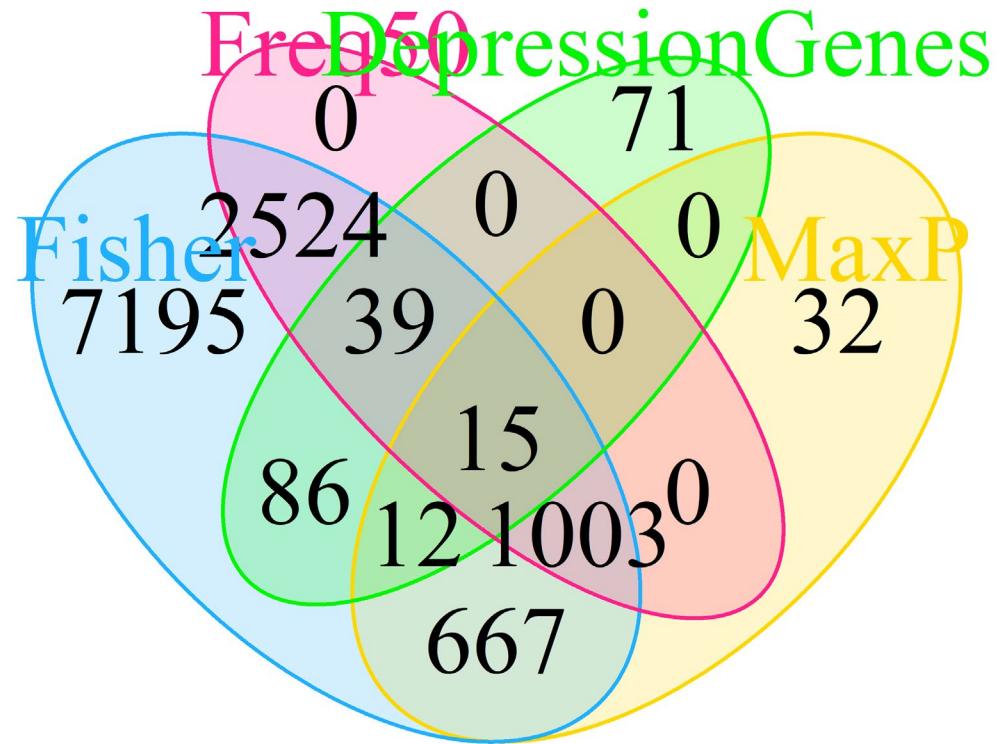


# Gene Set Overlap Analyses

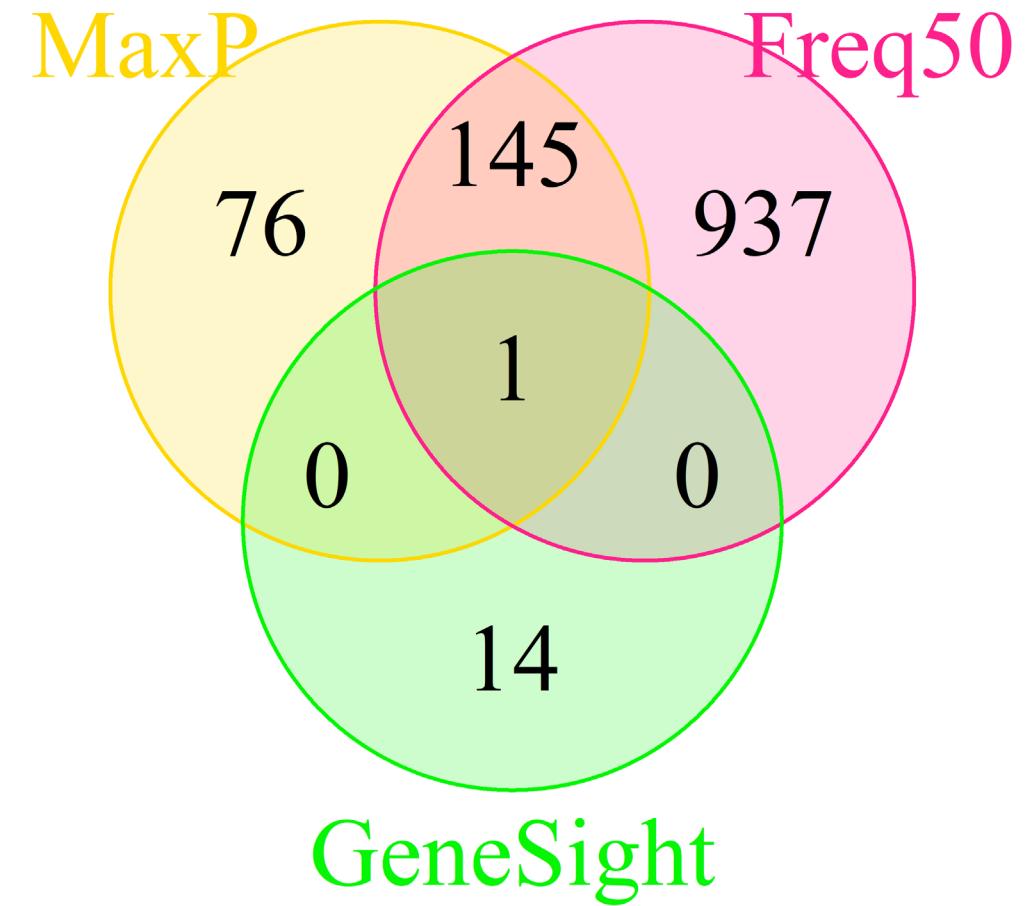
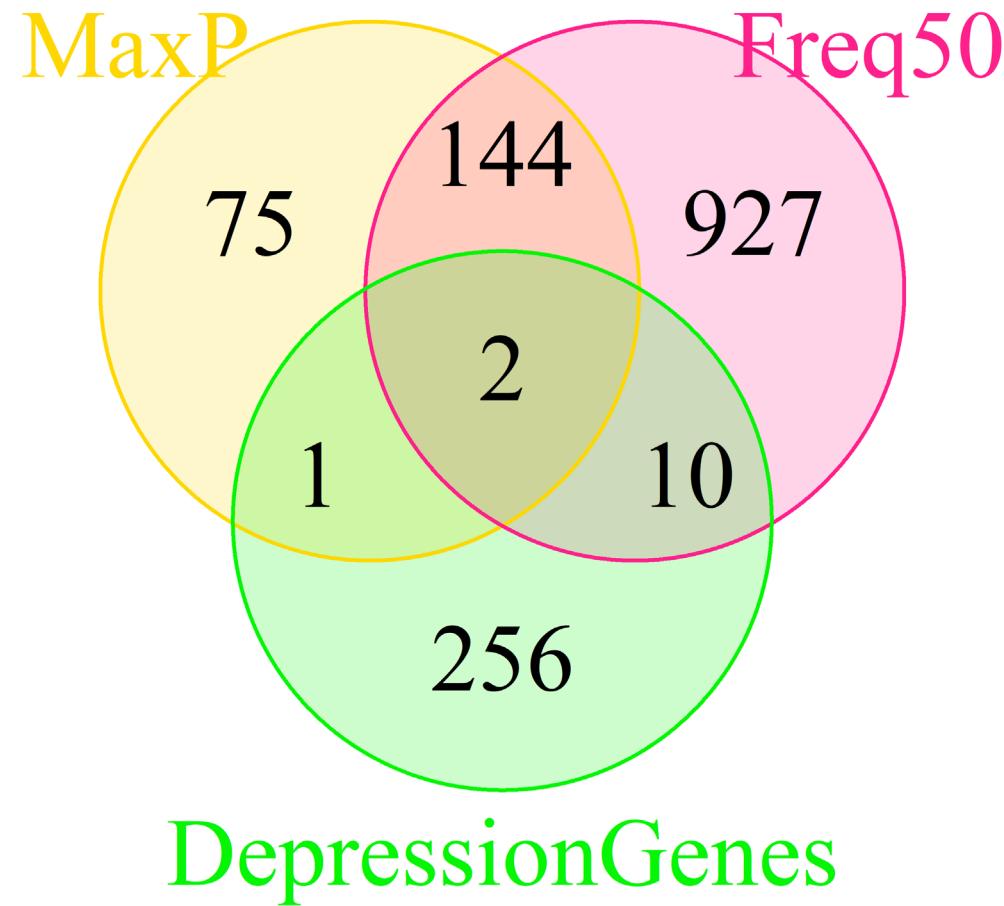
Treated vs Untreated : Mouse [20]



Treated vs Untreated : Mouse Stress [7]



All Treated vs Untreated : Human [3]



Responder vs Resistant: Mouse [8]

