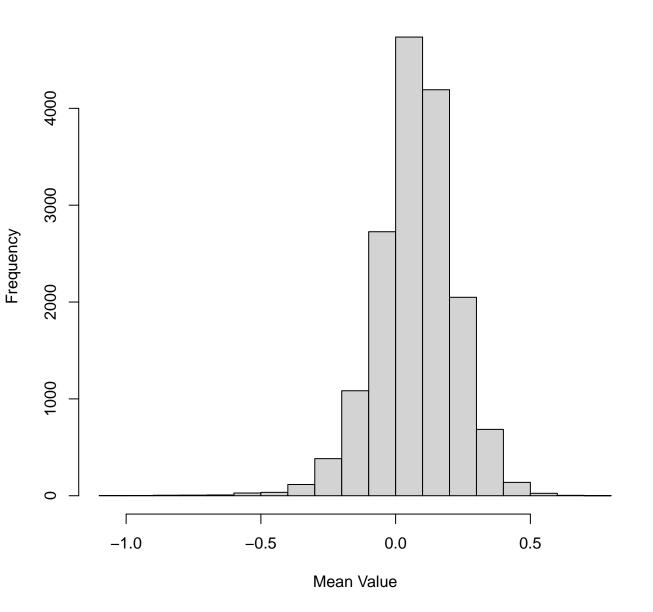
Mean Biodomain-Kegg Intersection Expression



Met	abolic	pathw	/ays

		IVICE	abone patriv	lays	
Apoptosis	-0.00412	-0.0507	-0.0262	0.176	-0.0285
APP Metabolism					
Autophagy	0.0329	0.0684	0.0445	0.148	-0.0403
Cell Cycle	-0.0342	-0.0528	-0.0439	0.162	-0.0441
DNA Repair	0.0871	-0.0361	0.0635	0.19	0.0786
Endolysosome	-0.012	-0.0418	-0.0136	0.0751	-0.0596
Epigenetic	0.18	0.174	0.213	0.052	0.0908
Immune Response	0.0416	0.0247	0.0422	0.124	-0.00584
Lipid Metabolism	0.0222	0.00278	0.0302	0.121	-0.0276
Metal Binding and Homeostasis	0.00336	-0.0143	0.0104	0.0891	-0.0333
Mitochondrial Metabolism	-0.167	-0.303	-0.26	0.161	-0.0345
Myelination	0.0366	0.0297	0.0522	0.132	-0.164
Oxidative Stress	-0.138	-0.239	-0.22	0.16	-0.0244
Proteostasis	0.035	0.0567	0.0675	0.124	-0.00161
RNA Spliceosome					
Structural Stabilization	0.068	0.104	0.114	0.0837	-0.0156
Synapse	0.00192	0.0146	0.0398	0.076	-0.073
Tau Homeostasis					
Vasculature	0.0781	0.076	0.0995	0.0867	0.0313
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Carbon metabolism						
Apoptosis		Jan					
APP Metabolism							
Autophagy							
Cell Cycle							
DNA Repair							
Endolysosome							
Epigenetic							
Immune Response	-0.0721	-0.0775	-0.109	0.0102	-0.0354		
Lipid Metabolism	-0.155	-0.228	-0.222	0.0601	-0.224		
etal Binding and Homeostasis	-0.127	-0.238	-0.202	0.188	-0.132		
Mitochondrial Metabolism	-0.152	-0.28	-0.258	0.214	-0.102		
Myelination							
Oxidative Stress							
Proteostasis	-0.232	-0.367	-0.239	0.177	-0.116		
RNA Spliceosome							
Structural Stabilization							
Synapse							
Tau Homeostasis							
Vasculature							
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

		2–Oxocarb	oxylic acid r	netabolism	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.15	-0.238	-0.153	0.31	-0.132
Mitochondrial Metabolism	-0.0545	-0.158	-0.123	0.296	-0.0888
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Fatty acid metabolism				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.0169	-0.101	-0.0423	0.169	-0.0757
Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.156	-0.23	-0.166	0.0923	-0.157
Myelination					
Oxidative Stress					
Proteostasis	0.0309	0.0638	0.036	0.203	-0.0616
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Biosynth	esis of amir	no acids	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	-0.0866	-0.177	-0.216	0.174	0.0279
Lipid Metabolism	-0.0863	-0.0526	-0.168	0.248	-0.0705
Metal Binding and Homeostasis	-0.129	-0.194	-0.193	0.175	-0.121
Mitochondrial Metabolism	-0.0801	-0.239	-0.241	0.339	0.0209
Myelination					
Oxidative Stress					
Proteostasis	-0.212	-0.266	-0.16	0.129	-0.0899
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Nucle	otide metab	olism			
Apoptosis							
APP Metabolism							
Autophagy							
Cell Cycle	-0.16	-0.238	-0.206	0.152	-0.101		
DNA Repair							
Endolysosome							
Epigenetic							
Immune Response	-0.144	-0.414	-0.322	0.239	-0.0717		
Lipid Metabolism							
Metal Binding and Homeostasis	-0.154	-0.304	-0.233	0.205	-0.0297		
Mitochondrial Metabolism	-0.057	-0.138	-0.0458	0.166	-0.0506		
Myelination							
Oxidative Stress							
Proteostasis	0.0108	0.0331	-0.0204	0.331	-0.105		
RNA Spliceosome							
Structural Stabilization	0.0369	0.0822	-0.0325	0.31	0.0428		
Synapse							
Tau Homeostasis							
Vasculature							
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

	Biosynthesis of nucleotide sugars					
Apoptosis						
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic						
Immune Response						
Lipid Metabolism						
Metal Binding and Homeostasis						
Mitochondrial Metabolism	-0.197	-0.134	-0.278	-0.114	-0.28	
Myelination						
Oxidative Stress						
Proteostasis	-0.254	-0.244	-0.174	-0.00981	-0.0416	
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

Biosyn	thesis	of c	ofactors	

		Diocy!!		lactoro	
Apoptosis	-0.121	-0.371	-0.241	0.326	0.0184
APP Metabolism					
Autophagy					
Cell Cycle	-0.0163	-0.0168	-0.152	0.219	-0.0962
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	-0.0779	-0.169	-0.186	0.168	-0.194
Lipid Metabolism	-0.127	-0.273	-0.259	0.172	-0.0921
Metal Binding and Homeostasis	-0.124	-0.197	-0.297	0.153	-0.0965
Mitochondrial Metabolism	-0.0685	-0.171	-0.154	0.178	-0.023
Myelination					
Oxidative Stress	-0.173	-0.226	-0.256	0.156	-0.153
Proteostasis	-0.15	-0.3	-0.213	0.0994	-0.0762
RNA Spliceosome					
Structural Stabilization	-0.0339	-0.163	-0.171	0.206	0.105
Synapse	-0.0412	-0.162	-0.00475	0.148	-0.133
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Glycolysis / Gluconeogenesis

		Giycoiysi	5 / Glucolle	ogenesis	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.167	-0.328	-0.0979	0.114	-0.0715
Metal Binding and Homeostasis	0.000452	-0.311	-0.147	0.236	0.0685
Mitochondrial Metabolism	-0.168	-0.232	-0.243	0.191	-0.000271
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Citrate	cycle (TCA	cycle)	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.0774	-0.141	-0.155	0.333	-0.0863
Mitochondrial Metabolism	-0.107	-0.266	-0.218	0.374	-0.0717
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Pentose phosphate pathway				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.0797	-0.0891	-0.117	0.185	-0.159
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Fructose an	d mannose	metabolism	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.189	-0.111	-0.295	0.23	0.0452
Mitochondrial Metabolism	-0.196	-0.214	-0.222	0.0346	-0.167
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Galac	ctose metab	olism	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.118	-0.217	-0.254	0.0122	-0.115
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Starch and	d sucrose m	etabolism	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.00172	0.0253	-0.242	0.0405	-0.165
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Amino	sugar and	nucleotide s	sugar metab	oolism
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.0267	-0.186	-0.123	0.347	0.0135
Mitochondrial Metabolism	-0.199	-0.227	-0.26	-0.0108	-0.143
Myelination					
Oxidative Stress					
Proteostasis	-0.205	-0.203	-0.168	0.0753	0.0224
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Pyru	vate metabo	olism	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.0367	-0.112	0.0399	0.181	0.02
Metal Binding and Homeostasis	-0.0463	-0.222	-0.0301	0.201	0.0142
Mitochondrial Metabolism	-0.13	-0.182	-0.142	0.246	0.00862
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Gly	oxylate and	l dicarboxyla	ate metaboli	sm
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.293	-0.408	-0.41	-0.0446	-0.291

Epigenetic					
Immune Response					
Lipid Metabolism	-0.293	-0.408	-0.41	-0.0446	-0.291
Metal Binding and Homeostasis	-0.228	-0.33	-0.236	-0.0104	-0.3
Mitochondrial Metabolism	-0.253	-0.358	-0.258	0.00387	-0.235
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Propa	noate metal	oolism	
Apoptosis		·			
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.0237	-0.0745	0.0197	0.00105	-0.159
Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.0968	-0.091	-0.06	0.0324	-0.154
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Butar	noate metab	olism	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.215	-0.317	-0.115	0.174	-0.049
Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.171	-0.314	-0.14	0.066	-0.106
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Inosital phosphate metabolism

		Inositol pl	hosphate me	etabolism	
Apoptosis					
APP Metabolism					
Autophagy	0.193	0.419	0.384	-0.00725	-0.127
Cell Cycle					
DNA Repair					
Endolysosome	0.155	0.377	0.387	-0.027	-0.256
Epigenetic					
Immune Response	0.116	0.235	0.322	-0.0328	-0.0498
Lipid Metabolism	0.111	0.254	0.278	0.0308	-0.0923
Metal Binding and Homeostasis	0.221	0.221	0.322	0.137	0.0703
Mitochondrial Metabolism	0.0876	0.134	0.262	0.0656	-0.0431
Myelination					
Oxidative Stress					
Proteostasis	0.102	0.213	0.309	0.0298	-0.18
RNA Spliceosome					
Structural Stabilization	0.112	0.3	0.303	-0.145	-0.12
Synapse	0.12	0.213	0.327	0.0634	-0.124
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Oxidati	ve phospho	rylation	
Apoptosis					
APP Metabolism					
Autophagy	-0.206	-0.341	-0.321	0.285	-0.00915
Cell Cycle					
DNA Repair					
Endolysosome	-0.281	-0.49	-0.441	0.295	-0.0264
Epigenetic					
Immune Response	-0.0055	-0.267	-0.151	0.498	0.215
Lipid Metabolism	-0.256	-0.601	-0.603	0.191	-0.023
Metal Binding and Homeostasis	-0.333	-0.644	-0.556	0.351	0.0851
Mitochondrial Metabolism	-0.512	-0.795	-0.77	0.144	-0.0532
Myelination					
Oxidative Stress	-0.597	-0.843	-0.769	0.013	-0.201
Proteostasis	-0.305	-0.484	-0.383	0.347	0.0234
RNA Spliceosome					
Structural Stabilization					
Synapse	-0.345	-0.48	-0.426	0.249	-0.0941
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Nitrogen metabolism						
Apoptosis							
APP Metabolism							
Autophagy							
Cell Cycle							
DNA Repair							
Endolysosome							
Epigenetic							
Immune Response							
Lipid Metabolism							
Metal Binding and Homeostasis	-0.0924	-0.245	-0.0454	0.0524	0.0252		
Mitochondrial Metabolism							
Myelination							
Oxidative Stress							
Proteostasis							
RNA Spliceosome							
Structural Stabilization							
Synapse							
Tau Homeostasis							
Vasculature							
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

		Fatty	acid biosynt	hesis	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.084	0.00389	0.112	0.0145	-0.198
Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.191	-0.134	0.00883	-0.0736	-0.271
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Fatty	acid elonga	ation	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.0586	-0.0979	-0.1	0.28	-0.015
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0384	0.0141	-0.00569	0.251	-0.0191
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Fatty acid degradation						
Apoptosis							
APP Metabolism							
Autophagy							
Cell Cycle							
DNA Repair							
Endolysosome							
Epigenetic							
Immune Response							
Lipid Metabolism	-0.0788	-0.259	-0.151	0.113	-0.0905		
Metal Binding and Homeostasis							
Mitochondrial Metabolism	-0.115	-0.239	-0.185	0.125	-0.0434		
Myelination							
Oxidative Stress							
Proteostasis	-0.213	-0.1	0.0308	0.0279	-0.269		
RNA Spliceosome							
Structural Stabilization							
Synapse							
Tau Homeostasis							
Vasculature							
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

		Ster	oid biosynth	esis	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.0157	0.17	-0.0743	-0.00448	-0.291
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.00645	0.173	-0.0432	0.0149	-0.299
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Primary b	oile acid bio	synthesis	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.0221	-0.0954	-0.0507	0.264	0.0015
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Steroid hormone biosynthesis					
Apoptosis						
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic						
Immune Response						
Lipid Metabolism	-0.0351	-0.12	-0.132	0.14	0.0933	
Metal Binding and Homeostasis	-0.0247	-0.0721	-0.16	0.1	0.195	
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis	0.0167	0.0277	-0.0586	0.151	0.0895	
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

	Glycerolipid metabolism						
Apoptosis							
APP Metabolism							
Autophagy							
Cell Cycle							
DNA Repair							
Endolysosome							
Epigenetic							
Immune Response	0.044	0.0141	-0.0774	0.201	0.198		
Lipid Metabolism	0.0672	0.1	0.102	0.0735	-0.0365		
Metal Binding and Homeostasis	-0.0272	0.17	0.131	-0.299	-0.182		
Mitochondrial Metabolism	0.038	0.0279	-0.00757	0.158	0.0509		
Myelination							
Oxidative Stress							
Proteostasis	0.111	0.202	0.2	0.196	0.053		
RNA Spliceosome							
Structural Stabilization							
Synapse	-0.11	0.00551	0.00501	-0.182	-0.0651		
Tau Homeostasis							
Vasculature							
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

Glycerophospholipid metabolism

		21,720.00	2 2 2 1 2 1 1 2 1 2 1 1 1		
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	-0.0475	-0.0217	-0.109	-0.0972	0.0115
Epigenetic					
Immune Response	0.109	-0.0156	-0.00122	0.261	0.139
Lipid Metabolism	0.13	0.136	0.142	0.11	0.0247
letal Binding and Homeostasis	-0.0176	0.0139	0.0922	-0.133	-0.131
Mitochondrial Metabolism	0.0969	0.0805	-0.00706	0.076	-0.0796
Myelination					
Oxidative Stress					
Proteostasis	0.21	0.276	0.197	0.244	0.0652
RNA Spliceosome					
Structural Stabilization	0.31	0.291	0.267	0.261	0.131
Synapse	0.142	0.203	0.168	-0.0209	0.012
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Ether lipid metabolism						
Apoptosis							
APP Metabolism							
Autophagy							
Cell Cycle							
DNA Repair							
Endolysosome	-0.161	-0.161	-0.257	-0.146	-0.0526		
Epigenetic							
Immune Response	0.0545	0.0565	0.0269	0.108	-0.00477		
Lipid Metabolism	0.0508	0.0239	-0.0252	0.0965	-0.0706		
Metal Binding and Homeostasis	-0.0641	-0.12	-0.0583	-0.152	-0.191		
Mitochondrial Metabolism							
Myelination							
Oxidative Stress							
Proteostasis	0.0553	0.0283	-0.0726	0.199	-0.0126		
RNA Spliceosome							
Structural Stabilization							
Synapse							
Tau Homeostasis							
Vasculature							
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

	Sphingolipid metabolism									
Apoptosis	0.304	0.345	0.295	0.274	0.076					
APP Metabolism										
Autophagy										
Cell Cycle										
DNA Repair										
Endolysosome	0.0446	-0.0256	0.0693	0.127	-0.087					
Epigenetic										
Immune Response	0.162	0.319	0.371	0.238	0.142					
Lipid Metabolism	0.107	0.117	0.117	0.0743	-0.053					
Metal Binding and Homeostasis	0.216	0.225	0.307	0.184	0.155					

Mitochondrial Metabolism Myelination -0.0351 0.082 -0.0218 0.00639

533 -0.192

· ·					
Oxidative Stress					
Proteostasis	0.108	0.194	0.134	0.0777	-0.0194
RNA Spliceosome					
Structural Stabilization					
Synapse	0.104	0.17	0.108	0.209	-0.0222
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Arachidonic acid metabolism					
Apoptosis				-		
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic						
Immune Response	0.14	0.0493	0.0739	0.218	0.0954	
Lipid Metabolism	-0.0196	-0.103	-0.0793	0.121	0.0161	
Metal Binding and Homeostasis	-0.094	-0.123	-0.06	-0.0635	-0.0828	
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis	0.0595	0.0251	0.00613	0.188	0.152	
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

	Linoleic acid metabolism					
Apoptosis						
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic						
Immune Response						
Lipid Metabolism	0.0237	-0.1	-0.0195	0.0677	0.0506	
Metal Binding and Homeostasis	-0.0813	-0.203	-0.0559	-0.155	0.000392	
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis						
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

	alpha-Linolenic acid metabolism				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.0748	-0.115	-0.0487	0.0705	-0.0397
Metal Binding and Homeostasis	-0.0863	-0.253	-0.0576	-0.18	-0.0873
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	В	iosynthesis	of unsaturat	ed fatty acid	ls
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.104	0.0445	-0.0198	0.21	-0.0316
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.15	0.0936	-0.00213	0.296	0.0617
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Apoptosis -0.0724 -0.201 -0.139 0.

Apoptosis	-0.0724	-0.201	-0.139	0.171	0.0874
APP Metabolism					
Autophagy					
Cell Cycle	-0.152	-0.155	-0.163	0.118	-0.114
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.0073	-0.0447	-0.00939	0.0644	-0.14
Lipid Metabolism	0.0102	0.0563	0.093	-0.0252	-0.176
Metal Binding and Homeostasis	-0.0422	-0.0153	-0.000235	0.00861	-0.0855
Mitochondrial Metabolism	-0.101	-0.129	-0.0984	0.0858	-0.0499
Myelination					
Oxidative Stress					
Proteostasis	0.0447	0.0937	0.0353	0.117	-0.0552
RNA Spliceosome					
Structural Stabilization	0.019	0.0272	0.046	0.164	-0.0255
Synapse	-0.0761	0.149	0.0443	-0.269	-0.173
Tau Homeostasis					
Vasculature	0.121	0.271	0.316	-0.0774	-0.04
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Pyrimidine metabolism				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle	-0.118	-0.129	-0.0936	0.135	-0.0946
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.0779	-0.201	-0.132	0.192	-0.0725
Mitochondrial Metabolism	-0.123	-0.135	-0.0743	0.177	-0.12
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

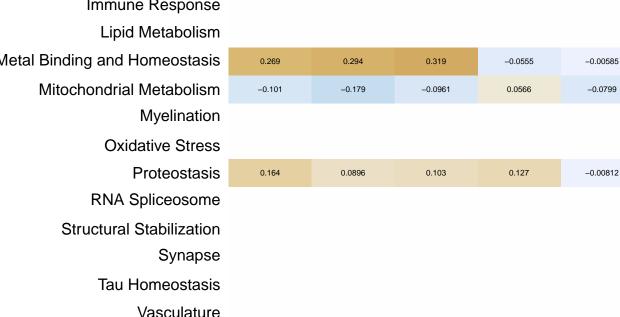
	Alanii	ne, aspartat	e and glutar	nate metabo	olism
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	0.0417	0.238	0.0773	-0.0234	-0.204
Mitochondrial Metabolism	-0.00467	0.128	0.0358	0.00982	-0.112
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Glycine, serine and threonine metabolism					
Apoptosis	Gly	cirie, seririe	and threom	ne metabon	2111	
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic						
Immune Response						
Lipid Metabolism						
Metal Binding and Homeostasis						
Mitochondrial Metabolism	-0.0756	-0.176	-0.0987	0.193	-0.0492	
Myelination						
Oxidative Stress						
Proteostasis						
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

	Cysteine and methionine metabolism				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.00849	-0.0372	0.013	0.0815	-0.0195
Mitochondrial Metabolism	-0.00121	-0.195	-0.0919	0.406	0.088
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Valine, leucine and isoleucine degradation **Apoptosis** APP Metabolism Autophagy Cell Cycle **DNA** Repair Endolysosome **Epigenetic** Immune Response Lipid Metabolism -0.162-0.3 -0.1840.15 -0.115 Metal Binding and Homeostasis -0.134 0.00278 -0.0788 -0.269-0.111Mitochondrial Metabolism -0.135-0.236-0.1380.125 -0.0912Myelination Oxidative Stress **Proteostasis RNA Spliceosome** Structural Stabilization Synapse Tau Homeostasis Vasculature WT/WT WT/FC FC/FC WT/VS VS/VS

Lysine degradation **Apoptosis** APP Metabolism Autophagy Cell Cycle 0.123 0.106 0.164 0.0532 0.0463 **DNA Repair** Endolysosome **Epigenetic** 0.288 0.378 0.409 -0.109 0.0207 Immune Response Lipid Metabolism



WT/FC

FC/FC

WT/VS

VS/VS

WT/WT

	Arginine biosynthesis				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	0.0155	0.0454	0.0215	-0.00602	0.0049
Mitochondrial Metabolism	-0.0157	0.0728	-0.066	0.0994	-0.0345
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Arginine a	nd proline m	etabolism	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	0.21	0.11	-0.0999	0.322	0.139
Mitochondrial Metabolism	0.0592	-0.065	-0.0339	0.293	0.12
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Tyro	sine metabo	lism	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.0652	-0.386	-0.158	0.309	0.113
Metal Binding and Homeostasis	0.0816	-0.201	-0.048	0.185	0.226
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Tryptophan metabolism				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.123	-0.239	-0.0738	0.094	-0.209
Metal Binding and Homeostasis	-0.0146	-0.133	0.113	0.0305	-0.211
Mitochondrial Metabolism	-0.128	-0.226	-0.111	0.0738	-0.152
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		beta-Alanine metabolism				
Apoptosis						
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic						
Immune Response						
Lipid Metabolism	-0.11	-0.251	0.0211	0.162	-0.225	
Metal Binding and Homeostasis						
Mitochondrial Metabolism	-0.0644	-0.0425	-0.00379	0.205	0.0338	
Myelination						
Oxidative Stress						
Proteostasis						
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

	Glutathione metabolism				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.00485	-0.162	0.0301	0.344	0.0589
Lipid Metabolism	-0.0792	-0.25	-0.221	0.353	0.0244
Metal Binding and Homeostasis	-0.0903	-0.109	-0.0082	0.0306	-0.321
Mitochondrial Metabolism	-0.073	-0.175	-0.0685	0.355	0.0371
Myelination					
Oxidative Stress	-0.0265	-0.117	-0.129	0.308	0.116
Proteostasis	-0.151	-0.406	-0.256	0.287	0.181
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		N–Gly	can biosynt	hesis	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.12	-0.243	-0.125	0.0584	0.00926
Metal Binding and Homeostasis	0.168	0.336	0.387	0.0742	0.0938
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.00241	0.0622	0.139	0.152	0.0404
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Va	arious types	of N-glycar	biosynthes	is
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	0.213	0.383	0.441	0.0876	0.0974
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0393	0.0682	0.156	0.213	0.086
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Mucin type	O-glycan b	iosynthesis	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	0.105	0.312	0.335	-0.056	-0.109
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.153	0.267	0.3	0.0094	-0.0112
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	N	lannose typ	e O-glycan	biosynthesis	S
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	0.0251	0.0731	0.0183	0.252	0.0804
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0336	0.0641	0.0514	0.286	0.0707
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	C	Other types	of O-glycan	biosynthesi	S
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	0.12	0.193	0.261	0.117	0.0447
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0857	0.113	0.199	0.069	0.00541
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Glycosaminoglycan biosynthesis - chondroitin sulfate / dermatan sulfate **Apoptosis APP Metabolism** Autophagy Cell Cycle **DNA** Repair Endolysosome

Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	0.134	0.414	0.172	0.2	0.137
Mitochondrial Metabolism					
Myelination					

_					
Mitochondrial Metabolism Myelination					
Oxidative Stress					
Proteostasis	0.143	0.296	0.203	0.122	0.119
RNA Spliceosome					
Structural Stabilization	0.0824	0.244	0.101	0.139	0.141
Synapse					

Proteostasis	0.143	0.296	0.203	0.122	0.119
RNA Spliceosome					
Structural Stabilization	0.0824	0.244	0.101	0.139	0.141
Synapse					
Tau Homeostasis					
Vasculature					

Structural Stabilization	0.0824	0.244	0.101	0.139	0.141
Synapse					
Tau Homeostasis					
Vasculature					

WT/WT WT/FC FC/FC WT/VS VS/VS

(Glycosamino	oglycan bios	ynthesis – h	neparan sulfa	ate / heparir
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0859	0.293	0.286	0.00908	-0.0281
RNA Spliceosome					
Structural Stabilization	0.0859	0.293	0.286	0.00908	-0.0281
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Glycosa	aminoglycan	hiosynthes	is – keratan	sulfate
Apoptosis	21,70000		. 2.00 / 111100	.o norman	Canato
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0432	-0.0568	0.0825	0.218	0.218
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Glycosami	noglycan de	egradation	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	-0.0849	-0.0538	-0.0362	-0.0631	-0.126
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Glycosylph	hosphatidylii	nositol (GPI))-anchor bio	osynthesis
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.0454	0.0894	0.0192	0.155	0.0277
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0454	0.0894	0.0192	0.155	0.0277
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Glycosphing	golipid biosy	nthesis – la	cto and neo	lacto series
Apoptosis	, , ,	. ,			
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.137	0.173	0.31	0.218	0.123
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.143	0.138	0.255	0.201	0.153
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Glycosphing	golipid biosy	nthesis – glo	obo and isog	globo series
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.121	0.267	0.274	0.092	-0.00936
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.187	0.415	0.347	0.0947	-0.0158
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Glycos	sphingolipid	biosynthesi	s – ganglio	series
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.184	0.236	0.271	0.157	0.0346
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.267	0.319	0.362	0.175	0.0379
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Other (glycan degra	adation	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	-0.0521	0.0238	-0.0367	0.077	-0.14
Epigenetic					
Immune Response					
Lipid Metabolism	-0.0315	-0.11	0.0103	0.224	-0.088
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Ni	cotinate and	d nicotinamio	de metabolis	sm
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.193	0.0308	0.0942	0.191	0.032
Lipid Metabolism	0.0294	-0.124	0.0244	0.21	-0.0271
Metal Binding and Homeostasis	0.0452	-0.14	-0.0268	0.164	-0.0277
Mitochondrial Metabolism	0.133	-0.0171	0.0906	0.202	0.0855
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Lipoic acid metabolism					
Apoptosis		-				
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic						
Immune Response						
Lipid Metabolism						
Metal Binding and Homeostasis						
Mitochondrial Metabolism	-0.153	-0.252	-0.104	0.152	-0.08	
Myelination						
Oxidative Stress						
Proteostasis						
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

		Fola	te biosynthe	esis	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	0.116	-0.199	-0.113	0.211	0.021
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		One carbon pool by folate					
Apoptosis							
APP Metabolism							
Autophagy							
Cell Cycle							
DNA Repair							
Endolysosome							
Epigenetic							
Immune Response							
Lipid Metabolism							
Metal Binding and Homeostasis							
Mitochondrial Metabolism	-0.0812	-0.199	-0.0658	0.0423	-0.19		
Myelination							
Oxidative Stress							
Proteostasis							
RNA Spliceosome							
Structural Stabilization							
Synapse							
Tau Homeostasis							
Vasculature							
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

		Reti	nol metabol	ism	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.0698	-0.211	-0.181	0.0148	-0.0132
Metal Binding and Homeostasis	-0.103	-0.246	-0.0721	-0.0117	-0.00428
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	-0.0375	-0.138	-0.175	0.0661	0.0124
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Porpl	hyrin metabo	olism	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.0443	-0.185	-0.114	0.193	-0.0684
Mitochondrial Metabolism	-0.134	-0.0318	-0.0524	0.169	-0.0815
Myelination					
Oxidative Stress					
Proteostasis	0.0165	-0.239	-0.136	0.209	-0.00709
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Terpenoid b	ackbone bi	osynthesis	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.139	-0.0679	-0.0792	0.104	-0.239
Metal Binding and Homeostasis	-0.0547	-0.155	-0.0972	0.187	-0.144
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Metabolism of xenobiotics by cytochrome P450				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.0443	-0.289	-0.000536	0.217	0.0611
Metal Binding and Homeostasis	0.0108	-0.178	0.0654	0.0853	-0.0476
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.156	-0.0631	0.0939	0.279	0.18
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Drug metabolism – cytochrome P450				0
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.011	-0.339	-0.00636	0.159	0.0614
Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.0249	-0.297	-0.0627	0.247	0.0597
Myelination					
Oxidative Stress					
Proteostasis	0.161	-0.175	0.0663	0.228	0.28
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Drug metabolism – other enzymes

	3		,	
-0.152	-0.197	-0.197	0.144	0.000745
0.0418	-0.243	-0.0868	0.331	0.163
-0.176	-0.3	-0.206	0.16	0.00288
-0.128	-0.196	-0.0567	0.19	-0.0351
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	0.0418 -0.176 -0.128	-0.152 -0.197 0.0418 -0.243 -0.176 -0.3 -0.128 -0.196	-0.152 -0.197 -0.197 0.0418 -0.243 -0.0868 -0.176 -0.3 -0.206 -0.128 -0.196 -0.0567	0.0418 -0.243 -0.0868 0.331 -0.176 -0.3 -0.206 0.16 -0.128 -0.196 -0.0567 0.19

	RNA polymerase				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle	-0.337	-0.412	-0.4	-0.0366	-0.106
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	-0.197	-0.241	-0.222	-0.0396	-0.18
Lipid Metabolism					
Metal Binding and Homeostasis	-0.26	-0.141	-0.109	-0.248	-0.189
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Rasal transcription factors

		Basal t	ranscription	factors	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle	-0.261	-0.151	-0.041	-0.102	-0.349
DNA Repair	-0.241	-0.234	-0.135	-0.0651	-0.204
Endolysosome					
Epigenetic	-0.123	-0.146	-0.0622	0.0443	-0.0404
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

osome

		9	Spliceosome	9	
Apoptosis	-0.103	-0.353	-0.17	0.0753	0.0706
APP Metabolism					
Autophagy					
Cell Cycle	-0.292	-0.384	-0.357	0.116	-0.0664
DNA Repair	-0.214	-0.374	-0.114	-0.0627	-0.0356
Endolysosome					
Epigenetic	-0.209	-0.336	-0.134	0.105	0.00723
Immune Response	0.137	0.0517	0.112	0.385	0.24
Lipid Metabolism					
Metal Binding and Homeostasis	-0.251	-0.416	-0.424	0.142	0.0554
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	-0.074	-0.261	-0.167	0.381	0.16
RNA Spliceosome	-0.207	-0.4	-0.302	0.156	0.0715
Structural Stabilization	-0.133	-0.329	-0.115	0.243	0.0845
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			Ribosome		
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	-0.62	-0.942	-1.07	0.21	-0.036
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.393	-0.712	-0.598	0.34	0.0545
Myelination					
Oxidative Stress					
Proteostasis	-0.5	-0.814	-0.83	0.302	0.0513
RNA Spliceosome					
Structural Stabilization	-0.502	-0.814	-0.836	0.301	0.0533
Synapse	-0.592	-0.95	-1.02	0.256	0.0527
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Aminoacyl-tRNA biosynthesis				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.203	-0.248	-0.152	0.0215	-0.167
Myelination					
Oxidative Stress					
Proteostasis	-0.221	-0.29	-0.191	0.0294	-0.187
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Nucleoc	ytoplasmic t	ransport
-0.00338	0.109	0.404

		Nucleoc	ytoplasmic t	ransport	
Apoptosis	0.0651	-0.00338	0.109	0.404	0.281
APP Metabolism					
Autophagy					
Cell Cycle	-0.0618	-0.00718	-0.0545	-0.0845	-0.218
DNA Repair					
Endolysosome					
Epigenetic	-0.0727	0.0923	0.0486	-0.215	-0.293
Immune Response	0.0704	0.0539	-0.0577	0.0653	0.0179
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	-0.236	-0.232	-0.195	-0.0159	-0.127
RNA Spliceosome	-0.0782	-0.3	-0.213	0.217	0.203
Structural Stabilization	-0.0689	0.000251	0.00218	-0.0866	-0.14
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

mRNA surveillance pathway

Apoptosis	-0.11	-0.155	-0.0823	0.475	0.201
APP Metabolism					
Autophagy					
Cell Cycle	-0.129	-0.121	-0.0651	0.266	-0.0136
DNA Repair	0.254	0.283	0.436	0.0194	0.162
Endolysosome					
Epigenetic	0.0936	-0.0192	0.0751	0.249	0.263
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.0714	-0.00759	0.0599	0.141	0.00571
Mitochondrial Metabolism	-0.306	-0.221	-0.207	0.0901	-0.142
Myelination					
Oxidative Stress					
Proteostasis	-0.166	-0.241	-0.169	0.0768	-0.0509
RNA Spliceosome	-0.00583	-0.221	-0.0583	0.264	0.301
Structural Stabilization	-0.255	-0.262	-0.233	0.282	0.0888
Synapse	-0.217	-0.264	-0.238	0.248	-0.0522
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
4					

	Ribosome biogenesis in eukaryotes					
Apoptosis						
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic	-0.181	-0.27	-0.361	-0.113	-0.137	
Immune Response						
Lipid Metabolism						
letal Binding and Homeostasis						
Mitochondrial Metabolism	-0.166	-0.233	-0.257	0.0933	-0.0561	
Myelination						
Oxidative Stress						
Proteostasis	-0.208	-0.317	-0.301	-0.0261	-0.123	
RNA Spliceosome						
Structural Stabilization	-0.111	-0.392	-0.383	0.229	0.159	

Synapse

WT/WT

WT/FC FC/FC

WT/VS

VS/VS

Vasculature

Tau Homeostasis

		P	rotein expoi	rt	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	-0.134	-0.346	-0.329	0.405	0.147
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Protein processing in endoplasmic reticulum

Apoptosis	0.152	0.0273	0.173	0.395	0.142
APP Metabolism					
Autophagy	0.159	0.0846	0.158	0.353	0.152
Cell Cycle	-0.00677	-0.203	-0.125	0.59	0.308
DNA Repair	-0.052	-0.13	-0.143	0.329	0.261
Endolysosome	0.183	-0.0307	0.166	0.484	0.184
Epigenetic	0.193	0.2	0.186	0.435	0.224
Immune Response	0.122	-0.0496	0.0672	0.441	0.19
Lipid Metabolism	0.0389	-0.105	0.0758	0.349	0.0988
Metal Binding and Homeostasis	0.224	0.235	0.274	0.222	0.0562
Mitochondrial Metabolism	0.116	0.11	0.154	0.315	0.157
Myelination					
Oxidative Stress	0.164	0.127	0.19	0.404	0.183
Proteostasis	0.0749	0.00317	0.0724	0.266	0.0695
RNA Spliceosome					
Structural Stabilization	0.205	0.028	0.182	0.556	0.277
Synapse	0.191	0.14	0.169	0.363	0.149
Tau Homeostasis					
Vasculature	0.216	0.184	0.249	0.486	0.265
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

SNARE interactions in vesicular transport

Apoptosis					
APP Metabolism					
Autophagy	-0.264	-0.309	-0.413	0.0504	-0.204
Cell Cycle					
DNA Repair					
Endolysosome	-0.189	-0.194	-0.283	-0.00958	-0.111
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	-0.253	-0.163	-0.318	0.0502	-0.122
RNA Spliceosome					
Structural Stabilization					
Synapse	-0.199	-0.17	-0.264	-0.0179	-0.113
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Ubiquitin mediated proteolysis

		Obiquitiii	mediated p	lotoolysis	
Apoptosis	0.000829	0.0888	0.106	0.0303	-0.167
APP Metabolism					
Autophagy	-0.087	0.0486	-0.1	0.00074	-0.153
Cell Cycle	-0.138	-0.0428	-0.042	-7e-04	-0.228
DNA Repair	-0.022	0.132	0.0841	-0.0445	-0.131
Endolysosome	0.211	0.361	0.292	0.112	0.0433
Epigenetic	-0.0161	0.0927	0.00337	-0.0313	-0.11
Immune Response	0.0929	0.195	0.18	0.094	-0.0752
Lipid Metabolism	0.0111	0.16	0.0534	0.174	-0.0599
Metal Binding and Homeostasis	0.0465	0.109	0.0572	0.0468	-0.108
Mitochondrial Metabolism	-0.252	-0.21	-0.303	0.171	-0.0864
Myelination					
Oxidative Stress					
Proteostasis	-0.0539	0.0253	-0.0102	0.099	-0.114
RNA Spliceosome					
Structural Stabilization	0.0129	0.158	0.0942	0.0597	-0.128
Synapse	0.077	0.167	0.137	0.025	-0.0431
Tau Homeostasis					
Vasculature	0.0638	0.16	0.249	0.0523	-0.0325
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			Proteasome		
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	-0.396	-0.766	-0.714	0.373	-0.0311
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		RN	IA degradati	ion	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic	-0.16	-0.0744	-0.0963	-0.0905	-0.202
Immune Response	-0.263	-0.251	-0.344	0.0198	-0.186
Lipid Metabolism					
letal Binding and Homeostasis	-0.0938	-0.0171	-0.0367	-0.0517	-0.137
Mitochondrial Metabolism	-0.21	-0.268	-0.271	0.0219	-0.223
Myelination					
Oxidative Stress					
Proteostasis	-0.252	-0.197	-0.204	-0.0874	-0.157
RNA Spliceosome	-0.409	-0.589	-0.568	0.241	-0.0979
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		DI	NA replication	on	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle	-0.14	-0.382	-0.208	0.104	-0.0525
DNA Repair	-0.161	-0.372	-0.231	0.118	-0.0611
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	0.013	-0.307	-0.0228	0.111	-0.096
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Base excision repair

	Dao	o oxolololi i c	pan	
-0.12	-0.353	-0.224	0.134	0.0037
-0.1	-0.331	-0.134	0.139	0.0255
-0.226	-0.596	-0.332	0.164	0.0518
-0.119	-0.224	-0.186	0.141	-0.0566
-0.0725	-0.149	-0.0799	0.305	0.000528
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	-0.226 -0.226 -0.119 -0.0725	-0.12 -0.353 -0.1 -0.331 -0.226 -0.596 -0.119 -0.224 -0.0725 -0.149	-0.12 -0.353 -0.224 -0.1 -0.331 -0.134 -0.226 -0.596 -0.332 -0.119 -0.224 -0.186 -0.0725 -0.149 -0.0799	-0.1 -0.331 -0.134 0.139 -0.226 -0.596 -0.332 0.164 -0.119 -0.224 -0.186 0.141 -0.0725 -0.149 -0.0799 0.305

	Nucleotide excision repair
Apoptosis	
4 . 1 . 12	

· ·						
APP Metabolism						
Autophagy						
Cell Cycle	-0.251	-0.375	-0.24	0.056	-0.135	
DNA Repair	-0.232	-0.355	-0.189	0.00427	-0.181	
Endolysosome						
Epigenetic	-0.0538	0.101	0.101	-0.215	-0.244	
Immune Response						
Lipid Metabolism						
Metal Binding and Homeostasis	-0.312	-0.349	-0.246	0.0182	-0.157	
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis	-0.222	-0.266	-0.132	0.0389	-0.172	
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

		М	ismatch repa	air	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle	-0.31	-0.451	-0.248	-0.0487	-0.146
DNA Repair	-0.294	-0.41	-0.217	-0.0876	-0.167
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Homologous recombination
Apoptosis	
APP Metabolism	

APP Metabolism					
Autophagy					
Cell Cycle	-0.128	-0.152	-0.0522	0.00526	-0.127
DNA Repair	-0.147	-0.183	-0.0855	-0.00147	-0.124
Endolysosome					

•					
DNA Repair	-0.147	-0.183	-0.0855	-0.00147	
Endolysosome					
Epigenetic	-0.2	-0.149	-0.107	-0.0555	

Endolysosome					
Epigenetic	-0.2	-0.149	-0.107	-0.0555	-0.213
Immune Response					
Lipid Metabolism					
etal Binding and Homeostasis	-0.06	0.0113	0.089	0.0101	-0.0178

Epigenetic	-0.2	-0.149	-0.107	-0.0555	-0.213
Immune Response					
Lipid Metabolism					
letal Binding and Homeostasis	-0.06	0.0113	0.089	0.0101	-0.0178
Mitochondrial Metabolism					
Myelination					

	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
Vasculature					
Tau Homeostasis					
Synapse					
Structural Stabilization	0.00417	0.117	0.192	-0.124	-0.193
RNA Spliceosome					
Proteostasis	-0.177	-0.303	-0.259	0.0705	-0.0219
Oxidative Stress					

		Non-hom	nologous en	d–joining	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle	-0.116	-0.135	-0.00615	-0.0197	-0.171
DNA Repair	-0.116	-0.135	-0.00615	-0.0197	-0.171
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		_		.1	
		Fancoi	ni anemia pa	athway	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle	-0.113	-0.146	-0.0123	-0.052	-0.0764
DNA Repair	-0.117	-0.154	-0.0207	-0.0982	-0.0992
Endolysosome					
Epigenetic	-0.0221	0.0227	0.115	0.0305	0.0662
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.0229	0.0109	0.107	-0.0159	-0.0752
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					

Proteostasis -0.243 -0.291 -0.144-0.159 -0.149 **RNA Spliceosome** Structural Stabilization Synapse Tau Homeostasis Vasculature WT/WT WT/FC FC/FC WT/VS VS/VS

ATP-dependent chromatin remodeling

	^	ir-depende	ziii GiiiOiiiaii	ii remodelli	ig
Apoptosis	-0.145	-0.284	-0.256	0.131	0.0549
APP Metabolism					
Autophagy					
Cell Cycle	-0.0439	-0.0851	-0.0604	0.0845	0.0385
DNA Repair	0.00136	-0.0349	-0.0107	0.119	0.0809
Endolysosome					
Epigenetic	0.00411	-0.0273	-0.0194	0.0426	0.0463
Immune Response	-0.0276	0.0266	0.0328	0.126	0.0248
Lipid Metabolism					
Metal Binding and Homeostasis	0.161	0.2	0.177	0.0125	0.134
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization	0.00887	-0.048	-0.052	0.163	0.0828
Synapse	0.0573	0.0848	0.0566	0.0794	0.0389
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Polycomb repressive complex					
Apoptosis	0.0776	0.204	0.203	0.0283	0.0878	
APP Metabolism						
Autophagy						
Cell Cycle	-0.00621	0.0717	0.0612	-0.0155	0.0117	
DNA Repair	0.231	0.526	0.362	0.0745	0.156	
Endolysosome						
Epigenetic	0.127	0.219	0.19	0.0148	0.0829	
Immune Response	0.0824	0.179	0.158	-0.128	0.0239	
Lipid Metabolism						
Metal Binding and Homeostasis	0.106	0.266	0.213	0.0265	0.142	
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis	0.133	0.385	0.285	0.065	0.0128	
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

Viral life cycle – HIV–1

		VIII			
Apoptosis	0.112	0.232	0.142	-0.0387	0.00964
APP Metabolism					
Autophagy	-0.0473	-0.0644	0.0475	0.332	0.124
Cell Cycle	0.046	-0.106	0.028	0.282	0.179
DNA Repair					
Endolysosome	-0.0639	-0.215	0.0512	0.328	0.145
Epigenetic	0.0687	0.0723	0.00953	0.137	0.196
Immune Response	0.144	0.206	0.207	0.00378	0.0137
Lipid Metabolism	0.121	0.0598	0.233	0.146	0.057
Metal Binding and Homeostasis	0.123	0.166	0.227	-0.027	0.0731
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.142	0.198	0.257	0.142	0.00676
RNA Spliceosome					
Structural Stabilization	0.0879	-0.000608	0.13	0.358	0.146
Synapse	0.21	0.324	0.344	0.263	0.127
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Virion - Hanatitic viruses

		Virion -	– Hepatitis v	/iruses	
Apoptosis					
APP Metabolism					
Autophagy	-0.179	-0.222	-0.226	0.347	-0.09
Cell Cycle					
DNA Repair					
Endolysosome	-0.0554	-0.142	-0.163	0.19	-0.0105
Epigenetic					
Immune Response	0.175	0.191	0.0739	0.0331	0.0803
Lipid Metabolism	0.11	0.0856	0.00065	0.192	0.133
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	-0.0773	-0.0771	-0.144	0.0794	-0.125
RNA Spliceosome					
Structural Stabilization	0.0182	-0.0979	-0.196	0.264	0.144
Synapse					
Tau Homeostasis					
Vasculature	0.181	0.123	0.0842	0.00626	0.152
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		AB	C transporte	ers	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	0.313	0.413	0.457	0.113	0.0873
Epigenetic					
Immune Response	0.359	0.179	0.311	-0.0959	0.0163
Lipid Metabolism	0.202	0.294	0.322	-0.17	-0.0577
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.192	0.199	0.252	-0.097	-0.0212
RNA Spliceosome					
Structural Stabilization					
Synapse	0.0854	0.232	0.277	-0.288	-0.0535
Tau Homeostasis					
Vasculature	0.292	0.373	0.421	-0.0421	0.0648
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

MAPK signaling pathway

		1717 (1 1 (oigilainig po	attivay	
Apoptosis	0.176	0.289	0.21	0.126	0.0348
APP Metabolism	0.183	0.489	0.282	-0.000605	0.138
Autophagy	-0.11	-0.0567	-0.0737	0.216	-0.0556
Cell Cycle	0.0353	0.184	0.123	0.0535	0.034
DNA Repair	0.0785	0.0848	0.101	0.175	0.00505
Endolysosome	0.062	0.0613	0.0303	0.151	0.0689
Epigenetic	0.0971	0.196	0.166	0.138	0.0451
Immune Response	0.0968	0.164	0.114	0.0955	0.0142
Lipid Metabolism	0.165	0.255	0.176	0.0825	-0.00451
Metal Binding and Homeostasis	0.045	0.19	0.151	-0.0945	-0.133
Mitochondrial Metabolism	0.123	0.147	0.126	0.176	0.042
Myelination	0.211	0.342	0.283	0.223	0.0757
Oxidative Stress	0.0316	0.188	0.106	0.185	0.0838
Proteostasis	0.0707	0.121	0.0726	0.202	0.0337
RNA Spliceosome					
Structural Stabilization	0.145	0.229	0.143	0.138	0.0433
Synapse	0.129	0.238	0.157	0.0545	0.00977
Tau Homeostasis					
Vasculature	0.106	0.239	0.118	0.0935	0.0108
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

ErbB signaling pathway

-0.0585

-0.0103

0.0762

-0.0135

0.0178

-0.0376

-0.0371

0.0165

0.00172

-0.034

0.0726

0.109

-0.0177

-0.0764

-0.0432

VS/VS

Apoptosis	0.14	0.366	0.267	0.0167
APP Metabolism				
Autophagy	0.19	0.401	0.384	0.108
Cell Cycle	0.111	0.298	0.22	0.169
DNA Repair	0.165	0.327	0.256	0.0664
Endolysosome	0.133	0.231	0.146	0.0737
Epigenetic	0.0832	0.232	0.256	0.0775
Immune Response	0.142	0.323	0.231	0.0401
Lipid Metabolism	0.236	0.43	0.338	0.0716
Metal Binding and Homeostasis	0.141	0.262	0.219	-0.0262
Mitochondrial Metabolism	0.117	0.348	0.248	-0.00677
Myelination				
Oxidative Stress	0.171	0.38	0.188	0.345
Proteostasis	0.14	0.221	0.169	0.2
RNA Spliceosome				
Structural Stabilization	0.161	0.371	0.265	0.0356
Synapse	0.0936	0.34	0.218	-0.0524
Tau Homeostasis				
Vasculature	0.194	0.391	0.285	0.0463
	WT/WT	WT/FC	FC/FC	WT/VS

Ras signaling pathway

			• • •	•	
Apoptosis	0.148	0.308	0.182	0.0204	-0.0529
APP Metabolism	0.25	0.595	0.362	0.0191	0.0817
Autophagy	-0.0148	0.106	0.00511	0.187	-0.0857
Cell Cycle	0.101	0.165	0.0799	0.116	0.035
DNA Repair	0.106	0.0939	0.121	0.212	-0.0449
Endolysosome	-0.00966	0.0473	-0.0259	0.12	-0.0208
Epigenetic	0.135	0.276	0.194	-0.0259	-0.0438
Immune Response	0.0997	0.18	0.0896	0.062	-0.0408
Lipid Metabolism	0.158	0.202	0.143	0.102	0.00718
Metal Binding and Homeostasis	0.0433	0.0888	0.0837	-0.0684	-0.0439
Mitochondrial Metabolism	0.116	0.172	0.0836	0.202	0.0347
Myelination	0.0331	0.207	0.196	0.194	0.0428
Oxidative Stress	0.147	0.247	0.0968	0.165	0.0561
Proteostasis	0.0548	0.129	0.0399	0.168	0.0175
RNA Spliceosome					
Structural Stabilization	0.114	0.193	0.103	0.126	0.0296
Synapse	0.0664	0.213	0.0875	0.0376	-0.0584
Tau Homeostasis					
Vasculature	0.11	0.22	0.078	0.0678	-0.0519
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Rap1 signaling pathway

Apoptosis	0.144	0.299	0.199	0.0319	-0.0946
APP Metabolism	0.208	0.545	0.379	-0.0803	0.0431
Autophagy	-0.0105	0.186	0.0696	0.105	-0.0941
Cell Cycle	0.0503	0.101	0.0714	0.126	0.0232
DNA Repair	0.055	0.208	0.17	0.0859	-0.118
Endolysosome	0.0514	0.222	0.0989	0.0839	-0.0638
Epigenetic	0.116	0.188	0.114	0.106	0.0337
Immune Response	0.0873	0.195	0.122	0.0535	-0.0156
Lipid Metabolism	0.144	0.243	0.179	-0.012	-0.0927
Metal Binding and Homeostasis	0.101	0.222	0.188	-0.0355	-0.0888
Mitochondrial Metabolism	0.0791	0.122	0.181	0.0331	-0.0388
Myelination	0.0793	0.17	0.198	0.19	-0.0387
Oxidative Stress	0.0153	0.174	0.0817	0.114	-0.0254
Proteostasis	0.0955	0.154	0.0944	0.141	0.0261
RNA Spliceosome					
Structural Stabilization	0.104	0.221	0.136	0.0625	-0.0388
Synapse	0.108	0.222	0.14	0.0347	-0.0436
Tau Homeostasis					
Vasculature	0.0835	0.161	0.0907	0.0955	-0.0218
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Wnt signaling pathway

APP Metabolism Autophagy	Apoptosis	0.0516	0.247	0.102	-0.0848	-0.14
Cell Cycle -0.0183 0.22 0.0288 -0.129 -0.122 DNA Repair 0.13 0.174 0.101 0.083 -0.00614 Endolysosome 0.0759 0.107 0.00482 0.156 0.00884 Epigenetic 0.133 0.291 0.134 0.0173 -0.0109 Immune Response 0.0818 0.126 0.0392 0.0496 -0.00817 Lipid Metabolism 0.116 0.224 0.173 -0.0636 -0.136 Metal Binding and Homeostasis 0.00684 0.125 0.067 -0.115 -0.148 Mitochondrial Metabolism 0.00369 0.0399 0.0401 -0.0575 -0.161 Myelination 0.0123 0.147 0.0794 0.0876 -0.229 Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization 0.0974 0.15 0.0849 0.00995 -0.0415 Synapse 0.0819 0.13 0.0799 0	APP Metabolism					
DNA Repair Endolysosome 0.0759 0.107 0.00482 0.156 0.00884 Epigenetic 0.133 0.291 0.134 0.0173 -0.0109 Immune Response 0.0818 0.126 0.0392 0.0496 -0.00817 Lipid Metabolism 0.116 0.224 0.173 -0.0636 -0.136 Metal Binding and Homeostasis 0.00664 0.125 0.067 -0.115 -0.148 Mitochondrial Metabolism 0.00369 0.0399 0.0401 -0.0575 -0.161 Myelination Oxidative Stress 0.0123 0.147 0.0794 0.0876 -0.229 Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization 0.0974 0.0819 0.13 0.0799 0.01 -0.0278	Autophagy	-0.105	0.0666	-0.017	-0.00993	-0.164
Endolysosome 0.0759 0.107 0.00482 0.156 0.00884 Epigenetic 0.133 0.291 0.134 0.0173 -0.0109 Immune Response 0.0818 0.126 0.0392 0.0496 -0.00817 Lipid Metabolism 0.116 0.224 0.173 -0.0636 -0.136 Metal Binding and Homeostasis 0.00664 0.125 0.067 -0.115 -0.148 Mitochondrial Metabolism 0.00369 0.0399 0.0401 -0.0575 -0.161 Myelination Oxidative Stress 0.0123 0.147 0.0794 0.0876 -0.229 Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization 0.0974 0.15 0.0849 0.00995 -0.0415 Synapse 0.0819 0.13 0.0799 0.01 -0.0278	Cell Cycle	-0.0183	0.22	0.0288	-0.129	-0.122
Epigenetic 0.133 0.291 0.134 0.0173 -0.0109 Immune Response 0.0818 0.126 0.0392 0.0496 -0.00817 Lipid Metabolism 0.116 0.224 0.173 -0.0636 -0.136 Metal Binding and Homeostasis 0.00664 0.125 0.067 -0.115 -0.148 Mitochondrial Metabolism 0.00369 0.0399 0.0401 -0.0575 -0.161 Myelination Oxidative Stress 0.0123 0.147 0.0794 0.0876 -0.229 Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization 0.0974 0.15 0.0849 0.00995 -0.0415 Synapse 0.0819 0.13 0.0799 0.01 -0.0278	DNA Repair	0.13	0.174	0.101	0.083	-0.00614
Immune Response 0.0818 0.126 0.0392 0.0496 -0.00817 Lipid Metabolism 0.116 0.224 0.173 -0.0636 -0.136 Metal Binding and Homeostasis 0.00664 0.125 0.067 -0.115 -0.148 Mitochondrial Metabolism 0.00369 0.0399 0.0401 -0.0575 -0.161 Myelination Oxidative Stress 0.0123 0.147 0.0794 0.0876 -0.229 Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization Synapse 0.0819 0.13 0.0799 0.01 -0.0278	Endolysosome	0.0759	0.107	0.00482	0.156	0.00884
Lipid Metabolism 0.116 0.224 0.173 -0.0636 -0.136 Metal Binding and Homeostasis 0.00664 0.125 0.067 -0.115 -0.148 Mitochondrial Metabolism 0.00369 0.0399 0.0401 -0.0575 -0.161 Myelination Oxidative Stress 0.0123 0.147 0.0794 0.0876 -0.229 Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization Synapse 0.0819 0.13 0.0799 0.0173 -0.0636 -0.115 -0.0636 -0.015 -0.0849 0.00995 -0.0415 -0.0278	Epigenetic	0.133	0.291	0.134	0.0173	-0.0109
Metal Binding and Homeostasis 0.00664 0.125 0.067 -0.115 -0.148 Mitochondrial Metabolism 0.00369 0.0399 0.0401 -0.0575 -0.161 Myelination Oxidative Stress 0.0123 0.147 0.0794 0.0876 -0.229 Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization 0.0974 0.15 0.0849 0.00995 -0.0415 Synapse 0.0819 0.13 0.0799 0.01 -0.0278	Immune Response	0.0818	0.126	0.0392	0.0496	-0.00817
Mitochondrial Metabolism 0.00369 0.0399 0.0401 -0.0575 -0.161 Myelination Oxidative Stress 0.0123 0.147 0.0794 0.0876 -0.229 Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization 0.0974 0.15 0.0849 0.00995 -0.0415 Synapse 0.0819 0.13 0.0799 0.01 -0.0278	Lipid Metabolism	0.116	0.224	0.173	-0.0636	-0.136
Myelination Oxidative Stress 0.0123 0.147 0.0794 0.0876 -0.229 Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization 0.0974 0.15 0.0849 0.00995 -0.0415 Synapse 0.0819 0.13 0.0799 0.01 -0.0278	letal Binding and Homeostasis	0.00664	0.125	0.067	-0.115	-0.148
Oxidative Stress 0.0123 0.147 0.0794 0.0876 -0.229 Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization 0.0974 0.15 0.0849 0.00995 -0.0415 Synapse 0.0819 0.13 0.0799 0.01 -0.0278	Mitochondrial Metabolism	0.00369	0.0399	0.0401	-0.0575	-0.161
Proteostasis 0.0176 0.125 0.0263 -0.00862 -0.093 RNA Spliceosome Structural Stabilization 0.0974 0.15 0.0849 0.00995 -0.0415 Synapse 0.0819 0.13 0.0799 0.01 -0.0278	Myelination					
RNA Spliceosome Structural Stabilization Synapse 0.0974 0.15 0.0849 0.00995 -0.0415 -0.0278	Oxidative Stress	0.0123	0.147	0.0794	0.0876	-0.229
Structural Stabilization 0.0974 0.15 0.0849 0.00995 -0.0415 Synapse 0.0819 0.13 0.0799 0.01 -0.0278	Proteostasis	0.0176	0.125	0.0263	-0.00862	-0.093
Synapse 0.0819 0.13 0.0799 0.01 -0.0278	RNA Spliceosome					
	Structural Stabilization	0.0974	0.15	0.0849	0.00995	-0.0415
T 11	Synapse	0.0819	0.13	0.0799	0.01	-0.0278
Iau Homeostasis	Tau Homeostasis					
Vasculature 0.12 0.244 0.0956 0.115 0.00691	Vasculature	0.12	0.244	0.0956	0.115	0.00691
WT/WT WT/FC FC/FC WT/VS VS/VS		WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Notch signaling pathway tosis 0.173 0.258 0.155 0.0994

Apoptosis	0.173	0.258	0.155	0.0994	-0.058
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	0.219	0.157	0.101	0.329	0.0947
Epigenetic	0.232	0.273	0.196	0.108	0.136
Immune Response	0.258	0.372	0.188	0.158	0.138
Lipid Metabolism	0.19	0.12	0.11	0.101	-0.058
Metal Binding and Homeostasis	0.358	0.369	0.295	0.304	0.245
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.353	0.304	0.259	0.343	0.195
RNA Spliceosome					
Structural Stabilization	0.175	0.149	0.103	0.147	0.107
Synapse	0.259	0.196	0.104	0.19	0.187
Tau Homeostasis					
Vasculature	0.225	0.273	0.178	0.106	-0.025
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Hedgehog signaling pathway					
Apoptosis	0.154	0.403	0.227	-0.0901	0.00764	
APP Metabolism						
Autophagy						
Cell Cycle	0.0119	0.35	0.128	-0.119	-0.13	
DNA Repair						
Endolysosome	0.335	0.444	0.355	0.202	0.241	
Epigenetic	0.227	0.388	0.297	-0.135	0.0446	
Immune Response	0.322	0.321	0.145	0.131	0.237	
Lipid Metabolism	0.24	0.29	0.146	0.219	0.0848	
Metal Binding and Homeostasis	0.247	0.324	0.192	0.0815	0.087	
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis	0.255	0.454	0.316	0.0809	0.0558	
RNA Spliceosome						
Structural Stabilization	0.137	0.34	0.123	-0.0983	-0.0482	
Synapse	0.323	0.397	0.316	0.0854	0.204	
Tau Homeostasis						
Vasculature	0.392	0.348	0.222	0.149	0.405	
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

	TGF-beta signaling pathway							
Apoptosis	0.079	0.119	0.11	0.0367	0.00741			
APP Metabolism								
Autophagy								
Cell Cycle	0.0244	0.111	0.0842	0.059	-0.0097			
DNA Repair								
Endolysosome	-0.0536	0.113	0.0146	-0.096	-0.251			
Epigenetic	0.158	0.217	0.223	0.0974	0.0762			
Immune Response	0.0723	0.0889	0.106	0.0422	0.0046			
Lipid Metabolism	0.0556	0.111	0.132	0.0317	-0.084			
Metal Binding and Homeostasis	0.115	0.337	0.246	-0.122	-0.121			
Mitochondrial Metabolism	-0.0856	-0.0137	-0.0199	0.214	-0.0475			
Myelination								
Oxidative Stress	-0.134	-0.00262	-0.107	-0.129	-0.202			

-					
Lipid Metabolism	0.0556	0.111	0.132	0.0317	-0.084
Metal Binding and Homeostasis	0.115	0.337	0.246	-0.122	-0.121
Mitochondrial Metabolism	-0.0856	-0.0137	-0.0199	0.214	-0.0475
Myelination					
Oxidative Stress	-0.134	-0.00262	-0.107	-0.129	-0.202
Proteostasis	0.0509	0.122	0.1	0.0101	-0.0643
RNA Spliceosome					
Structural Stabilization	0.0564	0.117	0.0825	0.029	-0.0292

0.209

0.223

WT/FC

0.179

0.249

FC/FC

0.0228

0.0845

WT/VS

0.00494

0.0566

VS/VS

0.109

0.168

WT/WT

Synapse

Vasculature

Tau Homeostasis

Hippo	signaling	pathway

Apoptosis	0.104	0.176	0.114	0.0717	-0.00902
APP Metabolism					
Autophagy					
Cell Cycle	0.0481	0.0537	0.0423	0.117	0.0129
DNA Repair	0.0709	0.0629	0.0475	0.173	0.138
Endolysosome	0.214	0.246	0.139	0.18	0.095
Epigenetic	0.123	0.183	0.0947	0.114	0.0643
Immune Response	0.0828	0.116	0.0674	0.0852	-0.00715
Lipid Metabolism	0.153	0.195	0.173	0.0832	-0.0134
Metal Binding and Homeostasis	0.158	0.218	0.228	0.0697	-0.0194
Mitochondrial Metabolism	-0.0716	0.00568	-0.109	0.261	0.0261
Myelination	0.263	0.23	0.299	0.151	0.0472
Oxidative Stress	0.0386	0.0639	0.0692	-0.0618	-0.134
Proteostasis	0.0705	0.161	0.0523	0.0686	-0.0517
RNA Spliceosome					
Structural Stabilization	0.12	0.191	0.122	0.0733	-0.00811
Synapse	0.0815	0.154	0.0924	0.0606	-0.0273
Tau Homeostasis					
Vasculature	0.116	0.235	0.116	0.114	0.0126
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

0.0569 0.0628 0.307 -0.0739 -0.139

FC/FC

WT/VS

VS/VS

Hippo signaling pathway - multiple species

Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic	0.133	0.059	0.23	0.149	0.136
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization	0.246	0.37	0.319	0.0188	0.0536
Synapse					
Tau Homeostasis					

WT/WT WT/FC

Apoptosis

Vasculature

APP Metabolism

VEGF	signaling	pathway

			5 51	,	
Apoptosis	0.178	0.23	0.301	0.187	0.178
APP Metabolism					
Autophagy	0.0694	0.0793	0.135	0.408	0.17
Cell Cycle	0.0103	0.022	0.131	0.239	0.184
DNA Repair	0.183	0.151	0.329	0.206	0.226
Endolysosome	-0.0291	-0.0643	0.01	0.221	0.126
Epigenetic	0.089	0.183	0.18	0.149	0.163
Immune Response	0.0948	0.0872	0.148	0.227	0.175
Lipid Metabolism	0.171	0.195	0.301	0.163	0.115
Metal Binding and Homeostasis	0.0036	-0.138	0.0736	-0.0866	-0.0107
Mitochondrial Metabolism	0.13	0.0937	0.177	0.214	0.112
Myelination					
Oxidative Stress	0.216	0.113	0.24	0.536	0.371
Proteostasis	0.108	0.13	0.16	0.351	0.183
RNA Spliceosome					
Structural Stabilization	0.077	0.102	0.153	0.26	0.168
Synapse	-0.00273	0.0113	0.0309	0.206	0.106
Tau Homeostasis					
Vasculature	0.138	0.208	0.248	0.147	0.127
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Apelin	signaling	pathway	,

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Apoptosis	0.133	0.219	0.194	0.13	0.0829
APP Metabolism					
Autophagy	-0.0254	0.143	0.133	0.0904	-0.104
Cell Cycle	-0.126	-0.0048	-0.0504	0.175	-0.0376
DNA Repair					
Endolysosome	0.0615	0.137	0.0977	0.199	-0.00655
Epigenetic	0.154	0.369	0.208	0.0971	0.0288
Immune Response	0.0654	0.219	0.0773	0.0776	-0.0249
Lipid Metabolism	0.116	0.226	0.219	0.0175	-0.0477
Metal Binding and Homeostasis	0.132	0.269	0.181	-0.0142	-0.0141
Mitochondrial Metabolism	0.126	0.179	0.232	0.00542	0.00838
Myelination	0.0476	0.0187	0.0627	0.296	0.0888
Oxidative Stress	0.124	0.175	0.141	0.358	0.199
Proteostasis	0.153	0.2	0.178	0.119	0.0558
RNA Spliceosome					
Structural Stabilization	0.0686	0.162	0.117	0.0539	-0.0206
Synapse	0.102	0.227	0.162	-0.00182	-0.0281
Tau Homeostasis					
Vasculature	0.158	0.262	0.17	0.094	0.048
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

JAK-STAT signaling pathway

0.169	0.208	0.177	0.131	0.0971
0.235	0.227	0.199	0.178	0.015
0.171	0.176	0.0811	0.254	0.236
0.281	0.456	0.205	0.195	0.167
0.0695	0.0505	0.0639	0.0233	-0.0397
0.128	0.141	0.0904	0.0817	0.183
0.141	0.0766	0.141	0.126	0.133
0.173	0.168	0.214	0.0457	0.0629
0.222	0.245	0.229	0.179	0.174
0.304	0.196	0.345	0.217	0.155
0.31	0.282	0.171	0.376	0.297
0.15	0.16	0.152	0.088	0.0522
0.155	0.177	0.148	0.186	0.137
0.206	0.174	0.146	0.121	0.105
0.19	0.285	0.314	0.0643	0.00462
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	0.235 0.171 0.281 0.0695 0.128 0.141 0.173 0.222 0.304 0.31 0.15 0.155 0.206	0.235 0.227 0.171 0.176 0.281 0.456 0.0695 0.0505 0.128 0.141 0.141 0.0766 0.173 0.168 0.222 0.245 0.304 0.196 0.31 0.282 0.15 0.16 0.155 0.177 0.206 0.174 0.19 0.285	0.235 0.227 0.199 0.171 0.176 0.0811 0.281 0.456 0.205 0.0695 0.0505 0.0639 0.128 0.141 0.0904 0.141 0.0766 0.141 0.173 0.168 0.214 0.222 0.245 0.229 0.304 0.196 0.345 0.31 0.282 0.171 0.15 0.16 0.152 0.155 0.177 0.148 0.206 0.174 0.146 0.19 0.285 0.314	0.235 0.227 0.199 0.178 0.171 0.176 0.0811 0.254 0.281 0.456 0.205 0.195 0.0695 0.0505 0.0639 0.0233 0.128 0.141 0.0904 0.0817 0.141 0.0766 0.141 0.126 0.173 0.168 0.214 0.0457 0.222 0.245 0.229 0.179 0.304 0.196 0.345 0.217 0.31 0.282 0.171 0.376 0.15 0.16 0.152 0.088 0.155 0.177 0.148 0.186 0.206 0.174 0.146 0.121 0.19 0.285 0.314 0.0643

	NF-kappa B signaling pathway				
Apoptosis	0.117	0.164	0.127	0.121	0.0307
APP Metabolism					
Autophagy	0.122	0.219	0.225	0.263	0.0339
Cell Cycle	-0.0197	0.147	0.108	0.0254	-0.0377
DNA Repair	0.402	0.428	0.367	0.356	0.229
Endolysosome	0.142	0.14	0.215	0.215	-0.00105
Epigenetic	0.0997	0.191	0.169	0.146	0.0726
Immune Response	0.128	0.11	0.114	0.109	0.0251

0.13

0.0114

0.265

WT/WT

Lipid Metabolism

Metal Binding and Homeostasis

Mitochondrial Metabolism

Myelination Oxidative Stress 0.228 0.275 0.198 0.0853 0.269 **Proteostasis** 0.104 0.156 0.19 0.0917 -0.0345**RNA Spliceosome** Structural Stabilization 0.153 0.208 0.2 0.11 0.0531 Synapse 0.1 0.133 0.119 0.0204 0.138 Tau Homeostasis Vasculature 0.0258 0.0167 0.0998 0.0854 0.0479

WT/FC

0.0953

0.186

0.3

0.0966

0.113

0.306

FC/FC

0.117

-0.122

0.433

WT/VS

0.0336

-0.124

0.333

VS/VS

TNF signaling pathway

			• • •	•	
Apoptosis	0.112	0.167	0.234	0.0957	-0.00898
APP Metabolism					
Autophagy	0.0603	0.0638	0.135	0.103	-0.0816
Cell Cycle	-0.0125	0.138	0.193	0.0247	-0.0918
DNA Repair	0.0627	0.253	0.21	-0.0765	-0.138
Endolysosome	0.101	0.195	0.32	0.0747	-0.0678
Epigenetic	0.0899	0.21	0.225	0.125	0.0812
Immune Response	0.093	0.15	0.176	0.0886	0.0334
Lipid Metabolism	0.141	0.162	0.212	0.107	0.0893
Metal Binding and Homeostasis	0.0833	0.22	0.272	-0.0652	-0.12
Mitochondrial Metabolism	0.18	0.177	0.336	0.15	0.067
Myelination					
Oxidative Stress	0.0694	0.22	0.24	0.163	-0.0493
Proteostasis	0.132	0.154	0.193	0.17	0.0548
RNA Spliceosome					
Structural Stabilization	0.172	0.2	0.265	0.0969	0.0475
Synapse	0.0736	0.102	0.176	0.116	-0.00268
Tau Homeostasis					
Vasculature	0.0574	0.171	0.253	0.059	-0.00175
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

HIF-1	signaling	pathway

			0 0 1	•	
Apoptosis	0.168	0.261	0.203	0.0681	0.0456
APP Metabolism					
Autophagy	0.161	0.277	0.331	0.18	0.029
Cell Cycle	0.17	0.297	0.228	0.129	0.112
DNA Repair	0.25	0.376	0.33	0.0961	0.108
Endolysosome	0.189	0.335	0.235	0.0633	0.0134
Epigenetic	0.159	0.29	0.216	0.0866	0.0597
Immune Response	0.158	0.233	0.17	0.0743	0.0545
Lipid Metabolism	0.167	0.287	0.223	0.123	0.0465
Metal Binding and Homeostasis	0.134	0.0862	0.123	0.157	0.116
Mitochondrial Metabolism	-0.00227	0.0699	0.0316	0.134	-0.0018
Myelination					
Oxidative Stress	0.0671	0.17	0.174	0.263	0.152
Proteostasis	0.0542	0.0575	0.0571	0.201	0.0871
RNA Spliceosome					
Structural Stabilization	0.114	0.164	0.0894	0.159	0.093
Synapse	0.157	0.251	0.13	0.107	0.0637
Tau Homeostasis					
Vasculature	0.153	0.226	0.178	0.0581	0.00333
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

FoxO signaling pathway

				-	
Apoptosis	0.126	0.263	0.225	0.0217	0.00696
APP Metabolism					
Autophagy	0.134	0.188	0.178	0.184	0.0269
Cell Cycle	0.0601	0.163	0.11	0.0769	0.0858
DNA Repair	0.13	0.233	0.17	0.039	0.0563
Endolysosome	0.0834	0.145	0.0525	0.192	0.117
Epigenetic	0.158	0.286	0.211	0.00944	0.0319
Immune Response	0.194	0.304	0.281	0.0322	0.0298
Lipid Metabolism	0.177	0.289	0.286	0.0312	0.00847
Metal Binding and Homeostasis	0.179	0.233	0.229	-0.0327	0.0468
Mitochondrial Metabolism	0.108	0.165	0.2	0.084	-0.0327
Myelination					
Oxidative Stress	0.118	0.192	0.168	0.0606	-0.0401
Proteostasis	0.0673	0.0505	0.0584	0.175	0.0803
RNA Spliceosome					
Structural Stabilization	0.117	0.245	0.182	0.0719	0.0428
Synapse	0.146	0.253	0.174	0.0909	0.0409
Tau Homeostasis					
Vasculature	0.228	0.313	0.238	0.088	0.0375
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Calcium signaling pathway

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Apoptosis	0.0868	0.137	0.0353	-0.00626	-0.0668
APP Metabolism					
Autophagy	-0.0337	-0.00324	0.0102	0.0135	-0.0564
Cell Cycle	-0.0258	0.0844	-0.0197	-0.112	-0.0577
DNA Repair					
Endolysosome	0.181	0.217	0.195	-0.01	0.0088
Epigenetic	0.137	0.182	0.138	0.0432	0.0243
Immune Response	0.0914	0.174	0.0814	-0.047	-0.0581
Lipid Metabolism	0.12	0.216	0.133	-0.0743	-0.0802
Metal Binding and Homeostasis	0.0279	0.162	0.125	-0.175	-0.102
Mitochondrial Metabolism	0.033	0.0646	0.000587	-0.106	-0.102
Myelination	-0.0105	0.14	0.00861	-0.0857	-0.0911
Oxidative Stress	0.165	0.259	0.126	0.0645	-0.0384
Proteostasis	0.107	0.152	0.0797	-0.0534	-0.037
RNA Spliceosome					
Structural Stabilization	0.0986	0.241	0.127	-0.0637	-0.0404
Synapse	0.0866	0.212	0.124	-0.11	-0.0895
Tau Homeostasis					
Vasculature	0.103	0.197	0.112	-0.0562	-0.0257
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Phosphatidylinositol signaling system

Apoptosis	-0.0265	0.255	0.212	-0.287	-0.224
APP Metabolism					
Autophagy	0.101	0.294	0.297	-0.0146	-0.103
Cell Cycle	-0.225	-0.0269	0.0576	-0.185	-0.154
DNA Repair					
Endolysosome	0.175	0.363	0.359	-0.012	-0.161
Epigenetic					
Immune Response	0.0531	0.175	0.273	-0.0583	-0.0133
Lipid Metabolism	0.143	0.299	0.309	-0.021	-0.0859
Metal Binding and Homeostasis	0.0695	0.169	0.23	-0.0662	-0.0799
Mitochondrial Metabolism	0.134	0.26	0.321	-0.145	-0.108
Myelination					
Oxidative Stress					
Proteostasis	0.195	0.386	0.432	-0.022	-0.103
RNA Spliceosome					
Structural Stabilization	0.0456	0.251	0.24	-0.173	-0.0964
Synapse	0.0406	0.165	0.287	-0.114	-0.151
Tau Homeostasis					
Vasculature	0.0723	0.139	0.22	-0.0765	-0.0639
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Phospholipase D signaling pathway

Apoptosis	0.17	0.14	0.167	0.197	0.0793
APP Metabolism					
Autophagy	0.194	0.175	0.181	0.413	0.258
Cell Cycle	0.0722	0.0718	0.0796	0.175	0.145
DNA Repair					
Endolysosome	0.0466	0.0586	0.0566	0.114	0.0329
Epigenetic	0.128	0.118	0.148	0.118	0.087
Immune Response	0.155	0.224	0.173	0.147	0.0728
Lipid Metabolism	0.173	0.194	0.189	0.0901	0.0316
Metal Binding and Homeostasis	0.119	0.144	0.212	-0.0563	-0.0524
Mitochondrial Metabolism	0.0929	0.148	0.131	0.13	0.0211
Myelination	0.107	0.0714	0.0822	0.465	0.204
Oxidative Stress	0.133	0.0755	0.0281	0.302	0.124
Proteostasis	0.125	0.136	0.0838	0.29	0.138
RNA Spliceosome					
Structural Stabilization	0.164	0.243	0.206	0.179	0.0646
Synapse	0.139	0.22	0.221	0.046	0.0111
Tau Homeostasis					
Vasculature	0.151	0.258	0.175	0.0971	0.00594
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Sphingoli	pid signaling	g pathway	

Apoptosis	0.0965	0.117	0.125	0.228	0.047
APP Metabolism					
Autophagy	0.0738	0.0711	0.0852	0.348	0.15
Cell Cycle	-0.0177	-0.0243	0.0343	0.297	0.0911
DNA Repair	0.0953	-0.0137	0.0715	0.291	0.176
Endolysosome	0.0387	-0.00459	0.0518	0.403	0.0865
Epigenetic	0.179	0.283	0.247	0.23	0.117
Immune Response	0.0629	0.0606	0.088	0.226	0.0931
Lipid Metabolism	0.158	0.141	0.172	0.204	0.0854
Metal Binding and Homeostasis	0.0685	0.0887	0.174	0.198	0.0371
Mitochondrial Metabolism	0.0194	0.0278	0.108	0.179	0.0102
Myelination	0.141	-0.00329	0.0257	0.666	0.379
Oxidative Stress	0.0728	0.0188	0.0936	0.399	0.171
Proteostasis	0.0692	0.0616	0.0202	0.25	0.0774
RNA Spliceosome					
Structural Stabilization	0.0737	0.103	0.129	0.323	0.092
Synapse	0.0643	0.0125	0.0758	0.303	0.0889
Tau Homeostasis					
Vasculature	0.167	0.19	0.24	0.183	0.0426
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

cAMP signaling pathway

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Apoptosis	0.123	0.228	0.242	0.0119	-0.0324
APP Metabolism	0.112	0.511	0.417	-0.223	-0.148
Autophagy	0.0801	0.151	0.158	0.209	0.0335
Cell Cycle	-0.0148	0.101	0.0676	0.0993	-0.0103
DNA Repair					
Endolysosome	0.0178	0.237	0.0968	0.0283	-0.0953
Epigenetic	0.172	0.305	0.246	0.0885	0.0326
Immune Response	0.0759	0.226	0.137	0.0287	-0.0401
Lipid Metabolism	0.111	0.263	0.214	0.046	-0.0263
Metal Binding and Homeostasis	0.142	0.35	0.275	-0.0641	-0.0559
Mitochondrial Metabolism	0.0427	0.135	0.0906	-0.019	-0.0974
Myelination	-0.0466	0.0723	0.0941	0.142	0.0514
Oxidative Stress	-0.00043	0.242	0.117	0.233	-0.122
Proteostasis	0.0982	0.183	0.124	0.0729	0.0128
RNA Spliceosome					
Structural Stabilization	0.0465	0.163	0.124	0.0701	-0.033
Synapse	0.0417	0.183	0.0734	-0.0163	-0.0574
Tau Homeostasis					
Vasculature	0.0763	0.275	0.178	0.00706	-0.0716
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

cGMP-PKG signaling pathway

Apoptosis	0.0694	-0.014	0.0318	0.19	0.0265
APP Metabolism					
Autophagy	-0.0181	0.00893	0.0628	0.209	0.0569
Cell Cycle	-0.0572	0.0703	0.0511	0.0879	-0.0439
DNA Repair					
Endolysosome	0.0947	0.154	0.13	0.218	0.103
Epigenetic	0.15	0.171	0.204	0.131	0.117
Immune Response	0.105	0.197	0.138	0.0588	-0.000566
Lipid Metabolism	0.142	0.259	0.297	-0.016	-0.068
letal Binding and Homeostasis	0.119	0.276	0.28	-0.0796	-0.0652
Mitochondrial Metabolism	0.0215	-0.0485	-0.0255	0.0625	-0.0368
Myelination	0.0311	-0.04	0.0675	0.328	0.196
Oxidative Stress	0.0694	0.0862	0.0151	0.333	-0.00316
Proteostasis	0.158	0.1	0.164	0.193	0.118
RNA Spliceosome					
Structural Stabilization	0.0572	0.152	0.127	0.113	0.0388
Synapse	0.0509	0.147	0.106	-0.0366	-0.0655
Tau Homeostasis					
Vasculature	0.102	0.251	0.178	-0.0244	-0.0287
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

PI3K–Akt signaling pathway

Apoptosis	0.125	0.228	0.13	0.086	-0.0196
APP Metabolism	0.189	0.426	0.213	-0.0688	0.0842
Autophagy	0.167	0.246	0.202	0.129	-0.0336
Cell Cycle	0.0661	0.171	0.0721	0.174	0.0639
DNA Repair	0.151	0.266	0.125	0.224	0.00256
Endolysosome	0.142	0.181	0.121	0.0852	0.0178
Epigenetic	0.0942	0.16	0.0629	0.12	0.0508
Immune Response	0.129	0.154	0.101	0.0586	0.0154
Lipid Metabolism	0.199	0.259	0.211	0.0568	-0.0053
Metal Binding and Homeostasis	0.14	0.234	0.205	0.0364	0.00825
Mitochondrial Metabolism	0.132	0.262	0.171	0.212	0.0671
Myelination	0.318	0.34	0.216	0.223	0.0946
Oxidative Stress	0.08	0.189	0.0575	0.158	0.0137
Proteostasis	0.126	0.118	0.0981	0.155	0.0852
RNA Spliceosome					
Structural Stabilization	0.143	0.201	0.174	0.0455	0.00453
Synapse	0.145	0.195	0.115	0.0688	8.67e-05
Tau Homeostasis					
Vasculature	0.17	0.25	0.188	0.0439	-0.00439
,	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

AMPK signaling pathway

Apoptosis	0.0319	0.219	0.147	0.00955	-0.0393
APP Metabolism					
Autophagy	0.15	0.361	0.329	-0.0134	-0.0236
Cell Cycle	0.00555	0.161	0.083	0.17	0.051
·	0.00555	0.161	0.063	0.17	0.051
DNA Repair					
Endolysosome	0.117	0.337	0.29	0.129	0.0292
Epigenetic	0.104	0.196	0.174	-0.0445	0.0013
Immune Response	0.172	0.275	0.258	0.183	0.101
Lipid Metabolism	0.221	0.322	0.32	0.108	0.0781
Metal Binding and Homeostasis	0.0482	0.151	0.171	0.131	-0.0558
Mitochondrial Metabolism	0.0608	0.169	0.177	0.0252	-0.00379
Myelination					
Oxidative Stress	-0.0501	0.169	0.18	-0.312	-0.21
Proteostasis	0.0482	0.163	0.136	0.076	0.0304
RNA Spliceosome					
Structural Stabilization	0.0324	0.311	0.177	0.0905	-0.0841
Synapse	0.0902	0.233	0.205	0.102	0.0299
Tau Homeostasis					
Vasculature	0.233	0.396	0.357	0.00471	0.0337
'	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

mTOR signaling pathway

			• • •	•	
Apoptosis	0.114	0.247	0.17	0.0199	-0.0246
APP Metabolism					
Autophagy	-0.0418	0.0809	0.044	0.109	-0.11
Cell Cycle	0.118	0.199	0.112	0.101	0.0737
DNA Repair	0.205	0.17	0.213	0.213	0.0476
Endolysosome	-0.0444	-0.016	-0.0685	0.101	-0.0834
Epigenetic	0.179	0.296	0.191	0.0349	0.0275
Immune Response	0.113	0.212	0.104	0.0498	0.0154
Lipid Metabolism	0.278	0.345	0.321	0.106	0.107
Metal Binding and Homeostasis	0.129	0.176	0.254	-0.0259	-0.0517
Mitochondrial Metabolism	0.058	0.148	0.0616	0.178	-0.0336
Myelination	0.286	0.321	0.356	0.264	0.189
Oxidative Stress	0.0645	0.0597	-0.0106	0.194	-0.0738
Proteostasis	0.0984	0.184	0.119	0.102	-0.0142
RNA Spliceosome					
Structural Stabilization	0.099	0.149	0.122	0.0543	-0.026
Synapse	0.0714	0.163	0.0582	0.0657	-0.0131
Tau Homeostasis					
Vasculature	0.109	0.409	0.164	0.00734	-0.0404
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Neuroactive ligand–receptor interaction

Apoptosis APP Metabolism	0.0566	0.0699	0.0266	-0.0724	-0.0258
APP Metabolism					0.0200
Al i Metabolisiii	-0.00445	0.367	0.169	-0.261	-0.106
Autophagy	0.154	0.116	0.156	0.214	0.221
Cell Cycle	-0.0145	0.0433	0.0162	0.0533	-0.0232
DNA Repair					
Endolysosome	0.0496	0.225	0.0419	-0.0346	-0.0404
Epigenetic	0.0992	0.186	0.0837	0.0887	0.026
Immune Response	0.07	0.147	0.0303	0.0484	-0.0197
Lipid Metabolism	0.0703	0.167	0.0339	0.039	-0.0188
Metal Binding and Homeostasis	0.035	0.252	0.102	-0.0707	-0.0914
Mitochondrial Metabolism	0.055	0.108	-0.00549	-0.0681	0.0126
Myelination					
Oxidative Stress	0.143	0.177	0.0426	0.168	0.0242
Proteostasis	-0.0216	0.067	-0.0242	-0.0752	-0.0987
RNA Spliceosome					
Structural Stabilization	0.0731	0.259	0.129	-0.0443	-0.11
Synapse	0.033	0.174	0.0195	-0.0225	-0.04
Tau Homeostasis					
Vasculature	0.0652	0.144	0.00412	0.0521	-0.054
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Cytokine–cytokine receptor interaction

Apoptosis	0.0646	0.104	0.0904	-0.0333	-0.0377
APP Metabolism					
Autophagy	0.147	-0.0998	0.0624	0.0278	-0.0146
Cell Cycle	0.155	0.21	0.099	0.105	0.137
DNA Repair					
Endolysosome	-0.00918	-0.0445	-0.0471	-0.124	-0.133
Epigenetic	0.0692	0.0233	0.0729	0.0412	0.0646
Immune Response	0.0507	-0.000174	0.0403	0.00811	0.0169
Lipid Metabolism	0.0954	0.0345	0.0609	-0.046	0.00536
Metal Binding and Homeostasis	0.0762	0.354	0.137	-0.199	-0.0564
Mitochondrial Metabolism	0.112	0.0267	0.224	-0.0533	-0.128
Myelination					
Oxidative Stress					
Proteostasis	0.0339	-0.0615	-0.00518	0.103	-0.0329
RNA Spliceosome					
Structural Stabilization	0.0935	0.0943	0.107	0.0286	0.0196
Synapse	0.139	0.182	0.16	0.0448	0.0622
Tau Homeostasis					
Vasculature	0.0416	0.0444	0.1	-0.0627	0.0114
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Viral protein	interaction	with cytokin	e and cytok	ine receptor
Apoptosis	0.0314	0.00465	0.0743	-0.0896	-0.112
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	-0.000664	-0.075	0.00861	-0.051	-0.0741
Lipid Metabolism	0.161	0.0088	0.149	-0.0235	-0.00202
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.18	-0.0146	0.121	0.266	0.135
RNA Spliceosome					
Structural Stabilization	0.0825	0.0735	0.0473	-0.0466	-0.0585
Synapse	0.0501	0.0811	0.108	-0.0274	-0.0339
Tau Homeostasis					
Vasculature	-0.0702	-0.0341	0.0211	-0.173	-0.0905
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

ECM-receptor interaction

		LOW!	oooptor into	radiidii	
Apoptosis	0.0966	0.258	0.194	-0.303	-0.282
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	0.166	0.105	0.0685	-0.0549	0.0274
Epigenetic					
Immune Response	0.195	0.269	0.266	-0.147	-0.0214
Lipid Metabolism	0.17	0.273	0.298	-0.2	-0.132
Metal Binding and Homeostasis	0.227	0.279	0.318	-0.0993	0.0767
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.321	0.271	0.282	0.0449	0.14
RNA Spliceosome					
Structural Stabilization	0.209	0.231	0.275	-0.0884	0.029
Synapse	0.259	0.356	0.343	-0.185	-0.116
Tau Homeostasis					
Vasculature	0.21	0.297	0.318	-0.136	0.0274
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Cell adhesion molecules

-0.228

-0.0903

-0.0658

-0.124 -0.0519

-0.0746

-0.198

-0.101

-0.185

-0.0717

VS/VS

Apoptosis	0.0911	0.207	0.0842	-0.162
APP Metabolism				
Autophagy				
Cell Cycle				
DNA Repair				
Endolysosome	0.066	0.211	0.147	-0.186
Epigenetic				
Immune Response	0.0867	0.175	0.0648	-0.03
Lipid Metabolism	0.0919	0.191	0.132	-0.0913
Metal Binding and Homeostasis	0.158	0.282	0.301	-0.227
Mitochondrial Metabolism				
Myelination	0.334	0.509	0.256	-0.0285
Oxidative Stress				
Proteostasis	0.142	0.241	0.171	-0.238
RNA Spliceosome				
Structural Stabilization	0.145	0.302	0.185	-0.154
Synapse	0.116	0.407	0.24	-0.241
Tau Homeostasis				
Vasculature	0.157	0.244	0.257	-0.0761
	WT/WT	WT/FC	FC/FC	WT/VS

Endocytosis	

Apoptosis	0.115	0.243	0.163	0.0563	-0.0613
APP Metabolism	0.0587	0.303	0.0883	0.0668	-0.114
Autophagy	-0.0632	-0.0108	-0.0311	0.298	-0.00277
Cell Cycle	-0.00982	0.0709	0.0242	0.21	-0.0241
DNA Repair					
Endolysosome	0.014	0.0827	0.0567	0.179	-0.0375
Epigenetic	0.088	0.235	0.0808	0.111	-0.00242
Immune Response	0.111	0.256	0.184	0.169	-0.0505
Lipid Metabolism	0.114	0.194	0.172	0.152	-0.0334
Metal Binding and Homeostasis	0.164	0.159	0.204	0.0295	-0.0237
Mitochondrial Metabolism	0.176	0.328	0.269	0.351	0.0522
Myelination					
Oxidative Stress	0.267	0.403	0.369	0.236	0.235
Proteostasis	0.0427	0.13	0.0729	0.173	-0.0304
RNA Spliceosome					
Structural Stabilization	0.043	0.113	0.079	0.173	-0.00568
Synapse	0.0962	0.206	0.142	0.199	0.0379
Tau Homeostasis					
Vasculature	0.112	0.277	0.22	0.183	-0.00635
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Phagosome	

			Pnagosome		
Apoptosis	0.031	-0.0309	-0.0114	0.048	-0.0168
APP Metabolism	0.106	0.0944	0.0517	-0.0169	0.0471
Autophagy	-0.0216	-0.115	-0.0647	0.163	-0.0178
Cell Cycle	-0.114	-0.232	-0.283	0.376	0.0632
DNA Repair					
Endolysosome	-0.0689	-0.122	-0.112	0.192	-0.0477
Epigenetic					
Immune Response	0.0227	-0.0657	-0.0383	0.203	0.0439
Lipid Metabolism	0.0849	0.0243	0.0361	0.0596	-0.0275
Metal Binding and Homeostasis	0.0417	-0.0667	-0.039	0.143	0.0818
Mitochondrial Metabolism	-0.144	-0.24	-0.19	0.196	-0.0105
Myelination					
Oxidative Stress	0.0129	0.0726	0.0527	-0.0638	-0.00441
Proteostasis	-0.0291	-0.0824	-0.0161	0.126	-0.0489
RNA Spliceosome					
Structural Stabilization	-0.0165	-0.069	-0.0797	0.152	0.0223
Synapse	-0.0768	-0.106	-0.119	0.185	-0.0486
Tau Homeostasis					
Vasculature	0.053	0.0925	0.138	0.0338	-0.0348
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			Lysosome		
Apoptosis	0.0716	0.0618	0.0276	0.254	0.0326
APP Metabolism					
Autophagy	-0.00842	0.00305	0.00241	0.168	-0.00785
Cell Cycle					
DNA Repair					
Endolysosome	-0.0381	-0.0224	-0.0262	0.119	-0.0691
Epigenetic					
Immune Response	0.0665	0.0488	0.0531	0.25	0.0768
Lipid Metabolism	0.0279	-0.057	0.00746	0.159	-0.0379
etal Binding and Homeostasis	-0.00343	0.0151	0.0515	0.142	0.0535

-0.0655

-0.0497

0.0479

-0.0772

0.121

WT/WT

-0.0566

-0.00336

-0.0812

0.00677

-0.119

WT/FC

-0.104

-0.00531

0.028

-0.0225

-0.081

FC/FC

0.232

0.115

0.162

0.106

0.203

WT/VS

0.0964

-0.0771

0.0886

-0.131

0.181

VS/VS

Mitochondrial Metabolism

Myelination

Proteostasis

Synapse

Vasculature

Oxidative Stress

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

			Peroxisome		
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	-0.0962	-0.153	-0.105	0.108	-0.152
Metal Binding and Homeostasis	-0.0921	-0.217	-0.106	0.19	-0.00217
Mitochondrial Metabolism	-0.0786	-0.192	-0.135	0.181	-0.108
Myelination					
Oxidative Stress	-0.151	-0.257	-0.221	0.0971	-0.0582
Proteostasis	-0.139	-0.187	-0.138	0.0163	-0.151
RNA Spliceosome					
Structural Stabilization					
Synapse	-0.0857	-0.083	-0.03	0.148	-0.097
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Autophagy – animal

		/ tutt	priagy an	iiiiai	
Apoptosis	0.0392	0.168	0.14	0.153	-0.0718
APP Metabolism					
Autophagy	0.0668	0.165	0.139	0.171	-0.0851
Cell Cycle	0.0505	0.163	0.129	0.179	0.0369
DNA Repair	0.259	0.341	0.284	0.325	0.104
Endolysosome	0.0139	0.144	0.0973	0.206	-0.0802
Epigenetic	-0.038	0.175	0.135	0.00495	-0.172
Immune Response	0.0291	0.102	0.0958	0.167	-0.0821
Lipid Metabolism	0.17	0.297	0.279	0.189	0.00975
Metal Binding and Homeostasis	0.0822	0.203	0.121	0.172	-0.0571
Mitochondrial Metabolism	0.0487	0.13	0.113	0.232	0.00119
Myelination	0.224	0.286	0.305	0.399	0.199
Oxidative Stress	-0.0103	0.194	0.113	0.139	-0.0308
Proteostasis	0.00639	0.0628	0.0402	0.207	-0.00358
RNA Spliceosome					
Structural Stabilization	-0.0423	0.0773	1.51e-05	0.116	-0.119
Synapse	0.00884	0.103	0.0788	0.205	-0.0362
Tau Homeostasis					
Vasculature	0.0757	0.39	0.262	0.0405	-0.17
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Aut	ophagy – of	ther
-0.272	-0.172	-0.249	0

Apoptosis	-0.272	-0.172	-0.249	0.221	-0.108
APP Metabolism					
Autophagy	0.0893	0.192	0.172	0.221	-0.0117
Cell Cycle					
DNA Repair					
Endolysosome	0.136	0.448	0.349	0.128	-0.0266
Epigenetic					
Immune Response	-0.218	-0.183	-0.136	0.141	-0.193
Lipid Metabolism	0.0979	0.244	0.23	0.181	0.00537
Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.00296	0.0568	-0.0184	0.29	0.0313
Myelination					
Oxidative Stress					
Proteostasis	-0.034	0.0387	-0.0358	0.232	-0.0222
RNA Spliceosome					
Structural Stabilization					
Synapse	-0.151	-0.0389	-0.0857	0.144	-0.177
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Mitc	phagy -	- ani	imal

Apoptosis	0.0108	0.0834	0.0496	0.289	0.034
APP Metabolism					
Autophagy	0.0129	-0.0103	-0.0264	0.351	0.0546
Cell Cycle	-0.124	-0.0227	-0.0995	0.264	0.159
DNA Repair					
Endolysosome	-0.0202	-0.0986	-0.079	0.501	0.128
Epigenetic	0.0534	0.212	0.113	0.147	-0.0419
Immune Response	0.0282	0.0528	0.0598	0.306	-0.00697
Lipid Metabolism	-0.0122	0.0939	0.0229	0.288	0.0506
Metal Binding and Homeostasis	0.00419	0.00396	0.00995	0.318	-0.015
Mitochondrial Metabolism	-0.0394	-0.00476	-0.0106	0.248	-0.0197
Myelination					
Oxidative Stress	-0.0117	0.153	0.078	0.355	0.0351
Proteostasis	-0.023	0.0528	0.0269	0.285	0.0151
RNA Spliceosome					
Structural Stabilization	-0.0649	-0.0826	-0.133	0.316	0.0659
Synapse	-0.0294	-0.0486	-0.0308	0.422	0.0797
Tau Homeostasis					
Vasculature	0.038	0.376	0.171	0.265	-0.0567
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Efferocytosis	

			,		
Apoptosis	0.0899	0.0894	0.113	0.01	-0.023
APP Metabolism					
Autophagy	0.07	0.111	0.212	0.00155	-0.0726
Cell Cycle	0.121	0.115	0.126	0.11	0.0488
DNA Repair	0.177	-0.0775	0.141	0.187	0.215
Endolysosome	0.0888	0.155	0.201	0.0911	-0.0309
Epigenetic	0.291	0.251	0.273	0.22	0.212
Immune Response	0.0994	0.125	0.132	0.115	0.0307
Lipid Metabolism	0.161	0.235	0.183	0.126	0.0371
Metal Binding and Homeostasis	0.162	0.227	0.214	0.0345	-0.0374
Mitochondrial Metabolism	0.102	0.0385	0.069	0.237	0.0434
Myelination					
Oxidative Stress	0.105	0.281	0.247	0.0498	-0.011
Proteostasis	0.0808	0.171	0.153	0.0728	0.0108
RNA Spliceosome					
Structural Stabilization	0.12	0.232	0.189	0.118	0.00668
Synapse	0.11	0.223	0.187	0.144	0.0422
Tau Homeostasis					
Vasculature	0.191	0.257	0.219	0.124	0.0342
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Cell	cycl	е
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-0.00573

-0.0439

-0.0709

-0.0205

-0.00433

0.0741

0.0226

-0.111

-0.0689

-0.12

-0.105

-0.0339

0.217

VS/VS

			Cell cycle	
Apoptosis	-0.0106	0.00541	0.0441	0.0656
APP Metabolism				
Autophagy				
Cell Cycle	-0.0709	-0.0435	-0.00121	0.0586
DNA Repair	-0.00401	0.0266	0.0657	0.0121
Endolysosome				
Epigenetic	0.0174	0.0599	0.0583	0.0449
Immune Response	-0.0221	-0.0811	-0.0568	0.0805
Lipid Metabolism	0.0424	0.0207	-0.00524	0.259
Metal Binding and Homeostasis	0.0342	-0.0188	-0.0214	0.0589
Mitochondrial Metabolism	0.0721	0.0226	0.056	0.194
Myelination				
Oxidative Stress	-0.136	-0.289	-0.339	0.0971
Proteostasis	-0.107	-0.0921	-0.0715	0.0349
RNA Spliceosome				
Structural Stabilization	-0.11	-0.0261	-0.0274	-0.0154
Synapse	-0.0905	-0.0376	-0.00585	0.0687
Tau Homeostasis				
Vasculature	0.0967	-0.0123	0.0685	0.21
	WT/WT	WT/FC	FC/FC	WT/VS

Oocyte meiosis

			,		
Apoptosis	-0.023	0.11	0.125	-0.00132	-0.148
APP Metabolism					
Autophagy					
Cell Cycle	-0.168	-0.147	-0.109	0.0603	-0.106
DNA Repair	-0.163	-0.199	-0.135	0.00371	-0.225
Endolysosome	0.052	0.3	0.051	0.129	0.0564
Epigenetic	-0.0825	0.00209	-0.048	0.031	-0.0821
Immune Response	-0.141	-0.0677	-0.116	0.0277	-0.1
Lipid Metabolism	0.0938	0.336	0.171	-0.0108	-0.0745
Metal Binding and Homeostasis	-0.00855	0.132	0.024	-0.019	-0.0941
Mitochondrial Metabolism	-0.0576	-0.0485	-0.0747	0.0251	-0.138
Myelination					
Oxidative Stress					
Proteostasis	-0.134	-0.0579	-0.0922	0.0274	-0.168
RNA Spliceosome					
Structural Stabilization	-0.187	-0.0984	-0.179	0.0353	-0.111
Synapse	-0.0597	0.0753	0.0378	-0.0205	-0.0881
Tau Homeostasis					
Vasculature	-0.247	0.057	-0.166	-0.0681	-0.167
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Apoptosis

Apoptosis	0.0283	0.0196	0.0611	0.16	0.0714
APP Metabolism					
Autophagy	0.0302	0.0683	0.0935	0.268	0.0815
Cell Cycle	-0.0299	-0.135	-0.0912	0.273	0.157
DNA Repair	0.0321	-0.0436	-0.00678	0.173	0.0983
Endolysosome	-0.0373	-0.177	-0.0281	0.315	0.0611
Epigenetic	0.143	0.188	0.18	0.283	0.149
Immune Response	0.0248	-0.00626	0.0435	0.168	0.0811
Lipid Metabolism	0.12	0.0896	0.19	0.128	0.137
Metal Binding and Homeostasis	0.0366	-0.0292	0.0601	0.181	0.0907
Mitochondrial Metabolism	0.108	0.125	0.207	0.197	0.149
Myelination	0.331	0.259	0.318	0.604	0.367
Oxidative Stress	-0.00243	0.0393	0.105	0.254	0.123
Proteostasis	0.0434	0.0194	0.0888	0.222	0.104
RNA Spliceosome					
Structural Stabilization	0.113	-0.00722	0.127	0.241	0.152
Synapse	0.0498	-0.00545	0.0482	0.262	0.091
Tau Homeostasis					
Vasculature	0.0393	0.11	0.161	0.244	0.0927
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Apoptosis – multiple species						
Apoptosis	0.0167	0.0372	0.0516	0.12			
APP Metabolism							

APP Metabolism Autophagy					
Cell Cycle	-0.0354	-0.115	-0.0763	0.153	0.124
DNA Repair	0.0851	0.0494	0.0777	0.263	0.281
Endolysosome					
Epigenetic					

0.0967

•					
DNA Repair	0.0851	0.0494	0.0777	0.263	0.281
Endolysosome					
Epigenetic					
Immune Response	-0.0389	-0.0453	0.0148	0.0771	0.0745

DNA Repair	0.0851	0.0494	0.0777	0.263	0.281
Endolysosome					
Epigenetic					
Immune Response	-0.0389	-0.0453	0.0148	0.0771	0.0745
Lipid Metabolism	-0.111	-0.186	-0.0868	0.0125	0.201
Metal Binding and Homeostasis					

<u> </u>					
Mitochondrial Metabolism	0.042	0.0559	0.0968	0.223	0.215
Myelination					
Oxidative Stress	-0.0961	-0.0635	-0.0396	0.0563	0.141
Proteostasis	0.0306	0.0242	0.0362	0.148	0.139
RNA Spliceosome					
Structural Stabilization					
Synapse	0.0703	0.0796	0.076	0.366	0.314

Oxidative Stress	-0.0961	-0.0635	-0.0396	0.0563	0.141
Proteostasis	0.0306	0.0242	0.0362	0.148	0.139
RNA Spliceosome					
Structural Stabilization					
Synapse	0.0703	0.0796	0.076	0.366	0.314
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Ferroptosis				
Apoptosis	-0.236	-0.0559	-0.196	0.0535	-0.262
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	0.129	0.135	0.0589	0.119	-0.00405
Epigenetic					
Immune Response	-0.19	-0.0801	-0.129	0.0675	-0.255
Lipid Metabolism	-0.163	-0.0902	-0.139	0.0116	-0.264
Metal Binding and Homeostasis	-0.0542	0.0313	-0.0421	0.125	-0.135
Mitochondrial Metabolism	-0.189	-0.118	-0.146	0.0861	-0.216
Myelination					
Oxidative Stress	-0.0812	0.0521	-0.0467	0.275	-0.0637
Proteostasis	-0.177	-0.0928	-0.0809	0.00877	-0.216
RNA Spliceosome					
Structural Stabilization					
Synapse	-0.122	-0.227	-0.297	0.213	0.0452
Tau Homeostasis					
Vasculature	-0.04	-0.0579	0.0719	0.0911	-0.185
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			Necroptosis		
Apoptosis	0.0497	0.00178	0.0102	0.162	
APP Metabolism					
Autophagy	-0.0939	-0.141	-0.102	0.298	
Cell Cycle	-0.0998	-0.0796	-0.118	0.261	
DNA Repair	0.193	0.192	0.164	0.472	
Endolysosome	-0.0489	-0.0555	0.0302	0.202	
Epigenetic	0.0181	0.0351	0.028	0.219	
Immune Response	0.0702	0.0334	0.0751	0.124	
Lipid Metabolism	-0.0307	-0.156	-0.0159	0.136	
Metal Binding and Homeostasis	0.0171	0.0275	0.0462	0.0653	
Mitochondrial Metabolism	-0.0116	-0.106	-0.0581	0.215	
Myelination					
Oxidative Stress	0.118	0.0706	0.215	0.231	
Proteostasis	-0.0267	-0.0686	-0.00822	0.231	
RNA Spliceosome					
Structural Stabilization	0.0483	0.0217	0.0767	0.218	
Synapse	0.0705	0.0339	0.085	0.22	
Tau Homeostasis					
Vasculature	0.0431	0.0616	0.0681	0.0329	
	WT/WT	WT/FC	FC/FC	WT/VS	

0.0219

0.0501

0.0696

0.471

-0.0165

0.103

0.0524

-0.0102

-0.0252

0.0466

0.0131

-0.00747

0.0586

-0.00873

-0.0824

VS/VS

p53 signaling pathway

		pool	ngi iaiii ig pai	iiiiay	
Apoptosis	0.104	0.0753	0.0152	0.218	0.211
APP Metabolism					
Autophagy	0.171	0.214	0.173	0.302	0.246
Cell Cycle	0.0336	0.00481	-0.00165	0.153	0.181
DNA Repair	0.107	0.0267	0.0777	0.16	0.119
Endolysosome	0.37	0.44	0.145	0.43	0.345
Epigenetic	0.123	0.138	0.0921	0.162	0.156
Immune Response	0.222	0.0972	-0.0132	0.349	0.304
Lipid Metabolism	0.251	0.121	0.0119	0.324	0.41
Metal Binding and Homeostasis	0.139	-0.146	-0.0328	0.127	0.15
Mitochondrial Metabolism	0.205	0.121	0.177	0.384	0.282
Myelination					
Oxidative Stress	0.178	0.14	0.0956	0.178	0.176
Proteostasis	0.0525	-0.0831	-0.0418	0.173	0.146
RNA Spliceosome					
Structural Stabilization	0.134	0.162	0.0594	0.277	0.219
Synapse	0.293	0.118	0.135	0.446	0.423
Tau Homeostasis					
Vasculature	0.321	0.245	0.0315	0.557	0.528
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Cellular senescence

Apoptosis	0.068	0.111	0.0877	0.0297	-0.0489
APP Metabolism					
Autophagy	0.0361	0.0935	0.157	0.13	-0.0467
Cell Cycle	-0.0205	0.0376	0.00831	0.054	0.00363
DNA Repair	0.0787	0.0813	0.0376	-0.02	-0.0489
Endolysosome	0.061	0.0436	0.0468	0.322	0.0968
Epigenetic	0.0474	0.0876	0.0642	0.0477	0.019
Immune Response	0.136	0.142	0.134	0.13	0.0694
Lipid Metabolism	0.17	0.236	0.26	0.0918	0.0134
Metal Binding and Homeostasis	0.0268	-0.0816	-0.00566	0.0973	0.0053
Mitochondrial Metabolism	0.0488	-0.0583	0.0659	0.137	-0.00615
Myelination	-0.000735	0.0167	0.0214	0.302	0.0669
Oxidative Stress	0.0747	0.00211	0.00148	0.248	0.0738
Proteostasis	0.0683	0.0836	0.119	0.124	0.0167
RNA Spliceosome					
Structural Stabilization	0.0459	0.155	0.114	0.0607	-0.028
Synapse	0.0552	-0.0151	0.0569	0.133	0.00372
Tau Homeostasis					
Vasculature	0.145	0.257	0.219	0.08	0.0476
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Focal adhesion	

Apoptosis	0.0971	0.273	0.178	-0.00681	-0.0553
APP Metabolism					
Autophagy	0.126	0.294	0.22	0.145	-0.0054
Cell Cycle	0.0609	0.237	0.0925	0.0735	0.0417
DNA Repair	0.0133	0.244	0.122	0.0588	-0.0413
Endolysosome	0.0671	0.106	0.0218	0.157	0.0198
Epigenetic	0.0447	0.252	0.0997	7.59e-05	-0.00277
Immune Response	0.146	0.222	0.168	0.041	0.00984
Lipid Metabolism	0.161	0.309	0.267	-0.00875	-0.0255
Metal Binding and Homeostasis	0.112	0.133	0.207	-0.012	0.045
Mitochondrial Metabolism	0.0736	0.259	0.169	0.0369	-0.0405
Myelination	0.321	0.29	0.331	0.0735	0.0257
Oxidative Stress	0.0777	0.183	0.0954	0.176	0.0352
Proteostasis	0.143	0.179	0.15	0.135	0.0809
RNA Spliceosome					
Structural Stabilization	0.14	0.214	0.18	0.0271	0.0376
Synapse	0.136	0.272	0.205	-0.0244	-0.0492
Tau Homeostasis					
Vasculature	0.138	0.272	0.182	0.00402	-0.0117
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Adherens junction

Apoptosis	0.112	0.291	0.163	-0.00489	-0.0758
APP Metabolism					
Autophagy	-0.0831	0.0532	-0.0232	0.236	0.00527
Cell Cycle	0.0124	0.278	0.129	-0.0994	-0.177
DNA Repair	0.134	0.284	0.167	0.0105	-0.0207
Endolysosome	-0.0728	0.0802	-0.114	0.0408	-0.134
Epigenetic	0.0468	0.364	0.136	-0.0936	-0.121
Immune Response	0.0604	0.213	0.0865	-0.0116	-0.0753
Lipid Metabolism	0.216	0.448	0.318	-0.067	-0.144
Metal Binding and Homeostasis	0.0938	0.239	0.186	-0.117	-0.059
Mitochondrial Metabolism	-0.0449	-0.0948	-0.0764	0.363	0.147
Myelination					
Oxidative Stress	-0.104	0.132	0.00559	0.0974	-0.128
Proteostasis	-0.0053	0.179	0.0928	0.0772	-0.0288
RNA Spliceosome					
Structural Stabilization	0.089	0.243	0.136	0.00404	-0.104
Synapse	0.0869	0.318	0.149	-0.0257	-0.111
Tau Homeostasis					
Vasculature	0.0828	0.257	0.107	0.0673	-0.104
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		٦	Tight junction	า
3	-0.073	0.0748	0.0179	

Apoptosis	-0.073	0.0748	0.0179	0.0919	-0.042
APP Metabolism					
Autophagy	-0.0535	0.158	-0.0177	0.0112	-0.157
Cell Cycle	-0.14	-0.157	-0.193	0.145	-0.0305
DNA Repair					
Endolysosome	0.0266	0.0697	0.00929	0.0655	-0.0261
Epigenetic	-0.117	0.0651	-0.0176	-0.0769	-0.133
Immune Response	-0.0453	-0.0369	-0.0689	0.103	0.000475
Lipid Metabolism	0.0441	0.0901	0.0586	0.0298	-0.012
Metal Binding and Homeostasis	-0.0203	-0.0202	0.0114	0.0632	-0.00125
Mitochondrial Metabolism	-0.186	-0.066	-0.122	0.0148	-0.214
Myelination	0.218	0.237	0.206	0.0325	-0.0169
Oxidative Stress	-0.262	0.119	-0.0388	-0.0724	-0.299
Proteostasis	-0.141	0.0407	-0.0912	-0.0163	-0.137
RNA Spliceosome					
Structural Stabilization	0.0322	0.0176	-0.0123	0.0869	0.0237
Synapse	-0.0129	0.0207	-0.0068	0.0894	-0.0272
Tau Homeostasis					
Vasculature	0.0922	0.17	0.0325	0.0535	-0.00753
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	WT/WT	WT/FC	FC/FC	WT/VS	VS/

nct	lo	n	

	Gap junction					
Apoptosis	0.0163	0.0608	0.0589	0.104	-0.0389	
APP Metabolism						
Autophagy						
Cell Cycle	-0.0578	-0.11	-0.173	0.259	0.128	
DNA Repair						
Endolysosome	0.0804	0.127	-0.0299	0.323	0.141	
Epigenetic	-0.0543	-0.0345	-0.0418	0.0431	-0.00446	
Immune Response	0.007	0.0766	-0.0153	0.0841	-0.0502	
Lipid Metabolism	0.113	0.24	0.155	-0.0925	-0.107	
Metal Binding and Homeostasis	0.0319	0.055	-0.0109	0.179	0.0301	
Mitochondrial Metabolism	0.11	0.167	0.179	-0.0195	-0.0998	
Myelination						
Oxidative Stress	0.139	0.123	0.108	0.218	0.144	
Proteostasis	0.0466	0.115	0.0296	0.101	0.0188	
RNA Spliceosome						
Structural Stabilization	0.0395	0.0346	-0.0518	0.257	0.101	
Synapse	0.0608	0.192	0.0984	0.0129	-0.052	
Tau Homeostasis						
Vasculature	0.0205	0.208	0.0684	-0.0545	-0.0389	
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

	Signaling pathways regulating pluripotency of stem cells					
Apoptosis	0.21	0.328	0.188	0.0728	0.067	
APP Metabolism						
Autophagy						
Cell Cycle	0.211	0.212	0.206	0.199	0.207	
DNA Repair	0.071	0.189	0.201	-0.0577	-0.0934	
Endolysosome	0.138	0.21	0.117	0.21	0.0679	
Epigenetic	0.186	0.269	0.177	0.0955	0.129	
Immune Response	0.149	0.239	0.151	0.0713	0.0558	
Lipid Metabolism	0.246	0.364	0.31	0.122	0.061	
Metal Binding and Homeostasis	0.233	0.393	0.335	0.0219	0.0604	
Mitochondrial Metabolism	0.259	0.269	0.301	0.164	0.117	
Myelination	0.276	0.294	0.31	0.466	0.311	
Oxidative Stress	0.048	0.0777	0.0439	0.201	-0.00861	
Proteostasis	0.192	0.27	0.185	0.143	0.0622	
RNA Spliceosome						
Structural Stabilization	0.216	0.317	0.224	0.105	0.0725	
Synapse	0.21	0.342	0.216	0.0878	0.0678	
Tau Homeostasis						
Vasculature	0.199	0.343	0.251	0.0975	0.0387	
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

		M	lotor protein	S	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle	-0.132	-0.0907	-0.113	0.159	-0.0329
DNA Repair					
Endolysosome	0.182	0.334	0.268	0.114	-0.0887
Epigenetic					
Immune Response	0.159	0.0365	-0.00066	0.363	0.149
Lipid Metabolism	0.106	0.0828	0.0336	0.0764	0.0882
Metal Binding and Homeostasis	-0.115	-0.261	-0.295	0.332	0.248
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.139	0.289	0.212	0.133	-0.00429
RNA Spliceosome					
Structural Stabilization	-0.0234	0.0341	-0.00583	0.0205	-0.0312
Synapse	0.0747	0.179	0.117	0.0146	0.0328
Tau Homeostasis					
Vasculature	-0.207	-0.242	-0.263	-0.108	-0.0123
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Cytoskeleton in muscle cells

		•			
Apoptosis	-0.00938	0.132	0.05	-0.149	-0.108
APP Metabolism					
Autophagy	0.253	0.204	0.249	0.166	0.0777
Cell Cycle	0.116	0.331	0.173	-0.165	-0.185
DNA Repair					
Endolysosome	0.234	0.331	0.239	-0.0848	0.0564
Epigenetic	0.0338	-0.0814	-0.0413	0.137	0.265
Immune Response	0.198	0.229	0.224	-0.0516	-0.0215
Lipid Metabolism	0.182	0.307	0.305	-0.0982	-0.012
Metal Binding and Homeostasis	0.114	0.135	0.0976	0.0671	0.0703
Mitochondrial Metabolism	0.194	0.242	0.197	0.068	0.09
Myelination					
Oxidative Stress					
Proteostasis	0.265	0.293	0.268	0.056	0.121
RNA Spliceosome					
Structural Stabilization	0.151	0.164	0.161	0.0116	0.0614
Synapse	0.209	0.324	0.28	-0.0692	-0.0024
Tau Homeostasis					
Vasculature	0.124	0.191	0.167	-0.0738	0.0327
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Regulation of actin cytoskeleton

0.108	0.235	0.202	0.0683	-0.081
0.12	0.227	0.238	0.179	-0.0091
0.0671	0.111	0.107	0.135	0.0208
0.0427	0.352	0.235	-0.0558	-0.233
0.0328	0.142	0.0821	0.1	-0.0486
0.0663	0.109	0.115	0.131	0.00185
0.0832	0.161	0.139	0.0509	-0.0352
0.138	0.206	0.234	0.0331	-0.0285
0.124	0.111	0.155	0.0783	0.0771
0.101	0.117	0.183	0.21	0.0848
0.0572	0.158	0.162	0.15	-0.0713
0.0463	0.0974	0.14	0.102	0.0346
0.0987	0.183	0.149	0.143	0.0261
0.0541	0.134	0.116	0.0536	0.00675
0.119	0.243	0.179	0.0642	0.00843
0.126	0.214	0.17	0.0739	-0.0313
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	0.12 0.0671 0.0427 0.0328 0.0663 0.0832 0.138 0.124 0.101 0.0572 0.0463 0.0987 0.0541 0.119	0.12 0.227 0.0671 0.111 0.0427 0.352 0.0328 0.142 0.0663 0.109 0.0832 0.161 0.138 0.206 0.124 0.111 0.101 0.117 0.0572 0.158 0.0463 0.0974 0.0987 0.183 0.0541 0.134 0.119 0.243	0.12 0.227 0.238 0.0671 0.111 0.107 0.0427 0.352 0.235 0.0328 0.142 0.0821 0.0663 0.109 0.115 0.0832 0.161 0.139 0.138 0.206 0.234 0.124 0.111 0.155 0.101 0.117 0.183 0.0572 0.158 0.162 0.0463 0.0974 0.14 0.0987 0.183 0.149 0.0541 0.134 0.116 0.119 0.243 0.179	0.12 0.227 0.238 0.179 0.0671 0.111 0.107 0.135 0.0427 0.352 0.235 -0.0558 0.0328 0.142 0.0821 0.1 0.0663 0.109 0.115 0.131 0.0832 0.161 0.139 0.0509 0.138 0.206 0.234 0.0331 0.124 0.111 0.155 0.0783 0.101 0.117 0.183 0.21 0.0572 0.158 0.162 0.15 0.0463 0.0974 0.14 0.102 0.0987 0.183 0.149 0.143 0.0541 0.134 0.116 0.0536 0.119 0.243 0.179 0.0642 0.126 0.214 0.17 0.0739

Apoptosis	0.0466	0.158	0.107	-0.162

Hematopoietic cell lineage

-0.122

-0.104	-0.0077	-0.0281	-0.134	-0.055
0.00732	0.0543	0.0382	-0.0733	-0.0168
0.0176	0.0268	0.0239	-0.12	-0.0569
1.52e-05	0.136	0.0723	-0.362	-0.152
-0.0164	0.0166	-0.072	-0.162	-0.0919
0.00361	0.11	0.0356	-0.128	-0.1
0.133	0.166	0.207	-0.057	0.036
-0.0868	0.00886	0.0739	-0.207	-0.0128
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	0.00732 0.0176 1.52e-05 -0.0164 0.00361 0.133	0.00732 0.0543 0.0176 0.0268 1.52e-05 0.136 -0.0164 0.0166 0.00361 0.11 0.133 0.166 -0.0868 0.00886	0.00732 0.0543 0.0382 0.0176 0.0268 0.0239 1.52e-05 0.136 0.0723 -0.0164 0.0166 -0.072 0.00361 0.11 0.0356 0.133 0.166 0.207 -0.0868 0.00886 0.0739	0.00732 0.0543 0.0382 -0.0733 0.0176 0.0268 0.0239 -0.12 1.52e-05 0.136 0.0723 -0.362 -0.0164 0.0166 -0.072 -0.162 0.00361 0.11 0.0356 -0.128 0.133 0.166 0.207 -0.057 -0.0868 0.00886 0.0739 -0.207

	Complement and coagulation cascades				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.018	-0.0296	-0.145	0.0328	-0.0529
Lipid Metabolism	0.069	0.0754	-0.052	-0.0443	-0.122
Metal Binding and Homeostasis	0.0294	0.0183	-0.078	-0.113	-0.11
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.112	-0.0213	-0.0582	0.0951	-0.0366
RNA Spliceosome					
Structural Stabilization	0.103	-0.0944	-0.00822	0.122	0.0356
Synapse	0.122	0.0377	-0.00997	0.298	0.116
Tau Homeostasis					
Vasculature	0.0867	-0.0479	-0.0307	0.1	-0.0318
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Platelet activation					
0.112	0.197	C			

Apoptosis	0.0939	0.112	0.197	0.192	-0.0265
APP Metabolism					
Autophagy	0.0743	0.0875	0.0615	0.18	-0.0193
Cell Cycle	0.0335	0.0998	0.106	0.239	0.0143
DNA Repair					
Endolysosome	-0.021	0.0353	0.0576	0.0892	-0.131
Epigenetic	0.0884	0.21	0.221	0.197	0.0437
Immune Response	0.0219	0.0822	0.0898	0.0415	-0.00269
Lipid Metabolism	0.0689	0.19	0.183	-0.0239	-0.0896
Metal Binding and Homeostasis	0.0378	0.152	0.111	-0.0691	-0.0916
Mitochondrial Metabolism	0.115	0.118	0.228	0.0953	0.0262
Myelination					
Oxidative Stress	0.0881	0.0755	0.0516	0.424	0.178
Proteostasis	0.143	0.254	0.225	0.107	-0.00113
RNA Spliceosome					
Structural Stabilization	0.0727	0.211	0.136	0.0724	-0.00677
Synapse	0.0628	0.165	0.102	0.0626	-0.0684
Tau Homeostasis					
Vasculature	0.0172	0.168	0.13	-0.0408	-0.0881
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Neutrophil extracellular trap formation

Apoptosis	-0.0498	-0.0239	-0.0804	0.112	-0.0654
APP Metabolism	0.0627	0.234	0.0307	0.146	0.0557
Autophagy	-0.058	0.0277	-0.0218	0.134	-0.0209
Cell Cycle	-0.0709	-0.0575	0.0147	0.247	0.107
DNA Repair	-0.00845	0.145	0.103	0.253	0.142
Endolysosome	-0.0531	0.16	0.0885	0.0896	-0.0638
Epigenetic	0.0116	0.0679	-0.0286	0.221	0.14
Immune Response	0.0144	0.109	0.0456	0.102	0.0457
Lipid Metabolism	0.0505	0.109	0.0754	0.116	0.00364
Metal Binding and Homeostasis	-0.00506	0.0299	0.0618	-0.0307	0.0197
Mitochondrial Metabolism	-0.0187	-0.0699	-0.0469	0.183	0.00405
Myelination	0.13	0.08	0.0265	0.506	0.211
Oxidative Stress	-0.0423	0.0129	-0.035	0.238	0.0601
Proteostasis	0.0429	0.0705	0.042	0.199	0.0499
RNA Spliceosome					
Structural Stabilization	-0.0117	0.0814	0.0481	0.0575	-0.0306
Synapse	-0.0187	0.0272	-0.0266	0.124	-0.0645
Tau Homeostasis					
Vasculature	0.0693	0.221	0.157	0.0704	-0.0173
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Toll–like receptor signaling pathway 0.127 0.223 0.191 0.163

Apoptosis	0.127	0.223	0.191	0.163	0.0157
APP Metabolism					
Autophagy	0.0504	0.224	0.176	0.16	-0.0693
Cell Cycle	-0.0529	0.157	0.277	0.162	-0.0586
DNA Repair	0.108	0.186	0.195	0.0415	-0.0729
Endolysosome	0.0711	0.122	0.135	0.2	0.0101
Epigenetic	0.0863	0.262	0.2	0.131	0.00384
Immune Response	0.101	0.141	0.144	0.144	0.064
Lipid Metabolism	0.166	0.151	0.194	0.167	0.109
Metal Binding and Homeostasis	0.122	0.24	0.216	0.135	0.00776
Mitochondrial Metabolism	0.109	0.1	0.243	0.207	0.146
Myelination					
Oxidative Stress	0.033	0.301	0.222	0.25	-0.0275
Proteostasis	0.0999	0.218	0.159	0.207	0.0194
RNA Spliceosome					
Structural Stabilization	0.105	0.162	0.206	0.105	0.038
Synapse	0.0303	0.107	0.101	0.142	-0.0707
Tau Homeostasis					
Vasculature	0.0436	0.169	0.21	0.105	-0.0403
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

NOD-like receptor signaling pathway 0.11 0.0617 0.193

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Apoptosis	0.0916	0.11	0.0617	0.193	0.0266
APP Metabolism					
Autophagy	0.0771	0.0341	0.044	0.252	-0.00183
Cell Cycle	0.0381	0.17	0.113	0.145	-0.0847
DNA Repair	0.125	0.101	0.188	0.154	0.0746
Endolysosome	0.128	0.0697	0.135	0.259	0.0408
Epigenetic	0.0221	0.173	0.0559	0.109	0.0343
Immune Response	0.0768	0.0653	0.0568	0.163	0.067
Lipid Metabolism	0.102	0.0571	0.107	0.138	0.0086
Metal Binding and Homeostasis	0.117	0.178	0.147	0.0065	-0.0211
Mitochondrial Metabolism	0.0718	-0.0295	0.0343	0.183	0.0573
Myelination					
Oxidative Stress	0.0393	0.119	0.0658	0.261	-0.0152
Proteostasis	0.0662	0.0582	0.0651	0.165	0.0103
RNA Spliceosome					
Structural Stabilization	0.0208	0.0435	0.0033	0.134	0.0208
Synapse	0.007	-0.0213	0.0191	0.217	0.00705
Tau Homeostasis					
Vasculature	-0.0523	0.054	0.0398	0.0142	-0.124
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

0.258

RIG-I-like receptor signaling pathway

0.2

0.0953

0.0553

Autophagy Cell Cycle

APP Metabolism

Apoptosis

ir

0.121

-0.0244

0.0751

0.165

0.00455

0.11

0.0807

-0.0938

WT/VS

DNA Repair
Endolysosome
Epigenetic

Myelination

Proteostasis

Synapse

Vasculature

Immune Response

Metal Binding and Homeostasis

Mitochondrial Metabolism

Lipid Metabolism

Oxidative Stress

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

0.112

0.0919

0.142

0.118

0.181

0.046

0.11

WT/WT

0.293

0.193

0.14

0.127

WT/FC

0.231

0.184

0.104

0.122

FC/FC

-0.0777

0.0453

0.146

-0.0323

0.153

-0.0281

-0.00288

VS/VS

0.111 0.321 0.168 0.0988 0.312 0.255

	Cytosolic I	DNA-sensir	ng pathway
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Apoptosis	0.0665	0.000273	0.0169	0.162	0.159
APP Metabolism					
Autophagy					
Cell Cycle	-0.163	-0.298	-0.143	0.0523	0.0517
DNA Repair	0.0535	-0.222	-0.00998	0.18	0.188
Endolysosome					
Epigenetic	0.108	0.151	0.16	0.19	0.0926
Immune Response	0.0741	-0.0298	0.047	0.132	0.0995
Lipid Metabolism	0.116	-0.0614	-0.00652	0.151	0.268
Metal Binding and Homeostasis	-0.0647	-0.093	0.0422	-0.102	-0.0356
Mitochondrial Metabolism	0.165	-0.0161	0.155	0.219	0.267
Myelination					
Oxidative Stress					
Proteostasis	0.102	0.0248	0.0478	0.192	0.0932
RNA Spliceosome					
Structural Stabilization	0.199	0.0245	0.252	0.203	0.308
Synapse	0.155	0.0315	0.131	0.393	0.408
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	C-type lectin receptor signaling pathway				
Apoptosis	0.106	0.176	0.161	0.134	0.024
APP Metabolism					
Autophagy	0.0274	0.208	0.209	0.0769	-0.0826
Cell Cycle	-0.034	0.0493	0.049	0.16	0.0298
DNA Repair	0.153	0.161	0.179	0.0803	0.0267
Endolysosome	-0.0548	-0.0919	0.00249	0.183	0.0117
Epigenetic	0.111	0.222	0.154	0.115	0.0698
Immune Response	0.0653	0.116	0.0966	0.116	0.0318
Lipid Metabolism	0.152	0.193	0.213	0.152	0.0691
Metal Binding and Homeostasis	-0.0439	0.0305	-0.0242	-0.0221	-0.0648
Mitochondrial Metabolism	0.106	0.116	0.227	-0.0188	-0.0282
Myelination	-0.122	0.00504	0.00168	0.288	0.0591
Oxidative Stress	0.109	0.274	0.142	0.276	0.0353
Proteostasis	0.0802	0.186	0.117	0.151	0.063
RNA Spliceosome					
Structural Stabilization	0.0389	0.106	0.108	0.14	0.0206
Synapse	0.024	0.0933	0.108	0.117	-0.0201
Tau Homeostasis					
Vasculature	0.0787	0.199	0.193	0.173	0.00691
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Natural killer cell mediated cytotoxicity				
Apoptosis	-0.133	-0.0941	-0.0734	-0.0605	-0.128
APP Metabolism					
Autophagy	-0.146	-0.12	-0.00522	0.143	-0.0587
Cell Cycle	-0.271	-0.131	-0.219	-0.134	-0.0854
DNA Repair	-0.0962	-0.0356	-0.0342	0.0168	-0.043
Endolysosome	-0.154	-0.211	-0.163	0.203	0.00563
Epigenetic	-0.00211	0.11	0.092	-0.00144	-0.066
Immune Response	-0.0562	-0.0529	-0.0407	0.047	0.00791
Lipid Metabolism	-0.0498	-0.0416	0.000145	0.0134	-0.0473
Metal Binding and Homeostasis	-0.154	-0.0691	-0.0495	-0.0929	-0.113
Mitochondrial Metabolism	-0.114	-0.099	-0.142	0.0931	-0.0404
Myelination					
Oxidative Stress	-0.256	-0.311	-0.268	0.2	0.00653
Proteostasis	-0.198	-0.245	-0.243	0.163	0.0288
RNA Spliceosome					
Structural Stabilization	-0.0786	-0.0357	-0.0138	0.0718	-0.037
Synapse	-0.144	-0.0871	-0.0704	0.0134	-0.115
Tau Homeostasis					
Vasculature	0.0234	0.227	0.141	0.00868	-0.107
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

ŀ	Antigen prod	essing and	presentation	

			_	-		
Apoptosis	0.17	-0.107	-0.0296	0.404	0.145	
APP Metabolism						
Autophagy						
Cell Cycle	0.0862	0.0223	-0.145	0.537	0.202	
DNA Repair						
Endolysosome	-0.0142	-0.148	-0.128	0.2	0.0531	
Epigenetic	0.128	0.00307	0.191	0.439	0.235	
Immune Response	0.0524	-0.11	-0.0864	0.246	0.126	
Lipid Metabolism	0.046	-0.0956	-0.14	0.22	0.116	
Metal Binding and Homeostasis						
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis	0.0617	-0.133	-0.108	0.296	0.0905	
RNA Spliceosome						
Structural Stabilization	0.0643	-0.16	-0.101	0.378	0.184	
Synapse	-0.000445	0.0553	-0.0975	0.283	0.0783	
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

T cell receptor signaling pathway

APP Metabolism Autophagy	
Cell Cycle -0.122 -0.0786 -0.00907 0.279 0.0009 DNA Repair 0.12 0.18 0.24 0.127 -0.098 Endolysosome -0.252 -0.229 -0.229 0.19 -0.076 Epigenetic 0.0367 0.194 0.155 0.103 -0.016 Immune Response -0.0298 0.0776 0.0245 0.106 -0.033 Lipid Metabolism 0.0266 0.0867 0.0608 0.194 0.048	
DNA Repair 0.12 0.18 0.24 0.127 -0.098 Endolysosome -0.252 -0.229 -0.229 0.19 -0.076 Epigenetic 0.0367 0.194 0.155 0.103 -0.016 Immune Response -0.0298 0.0776 0.0245 0.106 -0.03 Lipid Metabolism 0.0266 0.0867 0.0608 0.194 0.048	37
Endolysosome -0.252 -0.229 -0.229 0.19 -0.070 Epigenetic 0.0367 0.194 0.155 0.103 -0.010 Immune Response -0.0298 0.0776 0.0245 0.106 -0.03 Lipid Metabolism 0.0266 0.0867 0.0608 0.194 0.048	932
Epigenetic 0.0367 0.194 0.155 0.103 -0.016 Immune Response -0.0298 0.0776 0.0245 0.106 -0.03 Lipid Metabolism 0.0266 0.0867 0.0608 0.194 0.048	99
Immune Response -0.0298 0.0776 0.0245 0.106 -0.03 Lipid Metabolism 0.0266 0.0867 0.0608 0.194 0.048	08
Lipid Metabolism 0.0266 0.0867 0.0608 0.194 0.048	64
	11
	33
Metal Binding and Homeostasis -0.143 0.00851 -0.00952 0.00451 -0.16	65
Mitochondrial Metabolism -0.0693 0.0338 0.0657 0.0595 -0.08	12
Myelination	
Oxidative Stress -0.116 0.0715 -0.0248 0.293 -0.026	97
Proteostasis -0.105 0.0192 -0.0275 0.19 -0.053	33
RNA Spliceosome	
Structural Stabilization -0.0809 0.0337 -0.00629 0.101 -0.042	28
Synapse -0.0922 0.0693 -0.0261 0.0885 -0.09	99
Tau Homeostasis	
Vasculature 0.0632 0.35 0.236 0.0977 -0.097	
WT/WT WT/FC FC/FC WT/VS VS/V	22

Th1 and Th2 cell differentiation

Apoptosis APP Metabolism Autophagy Cell Cycle	0.178	0.29	0.136	0.104	-0.0163
Autophagy Cell Cycle	0.0275				
Cell Cycle	0.0275				
	0.0275				
DNA Danair		0.201	0.232	0.192	-0.0661
DNA Repair					
Endolysosome	-0.0122	0.0387	-0.0405	0.0156	-0.0639
Epigenetic	0.129	0.373	0.242	0.0163	-0.0238
Immune Response	0.0702	0.17	0.0975	0.0528	0.0303
Lipid Metabolism	0.13	0.153	0.0908	0.0661	0.037
Metal Binding and Homeostasis	-0.0426	0.157	0.0638	-0.0739	-0.228
Mitochondrial Metabolism	-0.014	0.113	0.0932	-0.094	-0.14
Myelination					
Oxidative Stress	0.0835	0.436	0.271	0.244	-0.0387
Proteostasis	0.0249	0.19	0.0238	0.0885	-0.106
RNA Spliceosome					
Structural Stabilization	0.109	0.234	0.132	0.0392	0.0578
Synapse	0.0658	0.222	0.0811	0.0508	-0.127
Tau Homeostasis					
Vasculature	0.177	0.414	0.271	0.0227	-0.117
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Th17 cell differentiation

Apoptosis	0.199	0.295	0.223	0.0662	0.00148
APP Metabolism					
Autophagy	0.192	0.146	0.134	0.0914	-0.0621
Cell Cycle	0.149	0.181	0.234	0.224	0.0322
DNA Repair					
Endolysosome	0.0224	0.113	-0.00281	0.00186	-0.0591
Epigenetic	0.151	0.282	0.185	0.0917	-0.00757
Immune Response	0.118	0.159	0.143	0.0541	0.018
Lipid Metabolism	0.205	0.205	0.176	0.101	0.0772
Metal Binding and Homeostasis	0.0869	0.24	0.126	-0.065	-0.142
Mitochondrial Metabolism	0.124	0.203	0.168	0.0606	-0.0354
Myelination					
Oxidative Stress	0.109	0.452	0.328	0.159	-0.0643
Proteostasis	0.0212	0.137	0.0108	0.0893	-0.101
RNA Spliceosome					
Structural Stabilization	0.172	0.254	0.172	0.0491	0.0618
Synapse	0.143	0.229	0.163	0.102	-0.0446
Tau Homeostasis					
Vasculature	0.203	0.385	0.295	-0.017	-0.0899
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

IL-17 signaling pathway

Apoptosis	0.0836	0.176	0.157	0.101	0.0000
			0.101	0.101	0.0662
APP Metabolism					
Autophagy	-0.0121	0.0753	0.0499	-0.0212	-0.0876
Cell Cycle	-0.026	-0.0206	0.0872	0.238	0.114
DNA Repair	0.0188	-0.0218	0.0294	0.0224	0.000757
Endolysosome	0.00154	0.153	0.0994	0.0622	-0.116
Epigenetic	0.0102	0.182	0.0869	0.0857	0.0301
Immune Response	0.0569	0.137	0.0995	0.114	0.105
Lipid Metabolism	0.0885	0.113	0.0618	0.108	0.121
Metal Binding and Homeostasis	0.114	0.247	0.246	0.0871	0.118
Mitochondrial Metabolism	0.197	0.249	0.293	0.121	0.096
Myelination					
Oxidative Stress	0.0139	0.286	0.216	0.168	0.00498
Proteostasis	0.0402	0.194	0.0896	0.126	0.0278
RNA Spliceosome					
Structural Stabilization	0.131	0.126	0.122	0.212	0.214
Synapse	0.0488	0.155	0.115	0.0921	0.0139
Tau Homeostasis					
Vasculature	0.104	0.206	0.238	0.183	0.112
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

B cell rece	ptor signalir	ng pathway	
0.15	0.139	0.145	

				• •	
Apoptosis	0.0872	0.15	0.139	0.145	0.0238
APP Metabolism					
Autophagy	0.11	0.151	0.147	0.265	0.0434
Cell Cycle	-0.0677	0.0513	0.138	0.162	0.0506
DNA Repair					
Endolysosome	-0.0827	-0.196	-0.0404	0.285	0.0811
Epigenetic	0.104	0.23	0.141	0.185	0.0942
Immune Response	0.0909	0.0701	0.0993	0.178	0.0664
Lipid Metabolism	0.0799	0.092	0.117	0.182	0.0715
Metal Binding and Homeostasis	0.0278	0.102	0.0713	0.017	-0.088
Mitochondrial Metabolism	0.0844	0.0222	0.126	0.231	0.0932
Myelination					
Oxidative Stress	-0.023	0.0481	-0.0688	0.388	0.124
Proteostasis	0.0261	0.0415	0.0481	0.315	0.118
RNA Spliceosome					
Structural Stabilization	0.041	-0.00839	0.0991	0.201	0.111
Synapse	-0.00196	0.0372	0.046	0.168	-0.0117
Tau Homeostasis					
Vasculature	0.11	0.409	0.315	0.104	-0.0716
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Fc epsilor	RI signalin	g pathway

Apoptosis APP Metabolism	0.0574	0.178	0.192	0.0664	-0.0641
APP Metabolism					
Autophagy	0.00121	0.0298	0.0165	0.261	0.0438
Cell Cycle	-0.0295	0.0734	0.149	0.252	0.0282
DNA Repair					
Endolysosome	-0.23	-0.289	-0.219	0.138	-0.0114
Epigenetic	0.0134	0.158	0.158	0.101	-0.023
Immune Response	0.025	0.0761	0.0625	0.123	0.0229
Lipid Metabolism	0.0243	0.0449	0.106	0.0489	-0.0105
letal Binding and Homeostasis	0.0458	-0.0207	0.0943	0.0289	0.00271
Mitochondrial Metabolism	0.0761	0.118	0.218	0.151	-0.00105
Myelination					
Oxidative Stress	-0.083	-0.0192	-0.00265	0.235	-0.038
Proteostasis	0.0268	-0.0226	0.0586	0.318	0.129
RNA Spliceosome					
Structural Stabilization	0.0371	0.0948	0.114	0.216	0.0607
Synapse	0.0302	0.104	0.102	0.267	0.00859
Tau Homeostasis					
Vasculature	0.0665	0.32	0.265	0.0367	-0.119
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Fc gamma R-mediated phagocytosis

Apoptosis	0.145	0.154	0.189	0.152	0.0604
APP Metabolism					
Autophagy	0.178	0.121	0.148	0.35	0.137
Cell Cycle	0.0315	0.0766	0.0779	0.217	0.0814
DNA Repair	0.0662	0.173	0.221	0.0245	-0.141
Endolysosome	0.0253	-0.0226	0.0559	0.148	0.0546
Epigenetic	0.03	0.0739	0.0878	0.0991	-0.0532
Immune Response	0.145	0.119	0.144	0.214	0.0762
Lipid Metabolism	0.157	0.148	0.204	0.149	0.0544
Metal Binding and Homeostasis	0.141	0.107	0.2	0.00178	-0.0415
Mitochondrial Metabolism	0.11	0.159	0.149	0.19	0.0542
Myelination					
Oxidative Stress	0.135	0.0461	0.114	0.453	0.204
Proteostasis	0.146	0.0995	0.153	0.304	0.162
RNA Spliceosome					
Structural Stabilization	0.00554	0.0384	0.0165	0.153	0.0206
Synapse	0.0559	0.055	0.0304	0.217	0.0658
Tau Homeostasis					
Vasculature	0.136	0.241	0.191	0.11	-0.0397
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Leukocyte transendothelial migration

APP Metabolism Autophagy Cell Cycle DNA Repair Endolysosome Epigenetic	-0.0162 -0.00205 -0.16 0.0475	0.066 0.145 0.00707	0.0866 0.0567 -0.0493	0.1 0.129 0.0153	-0.0882 -0.0553
Cell Cycle DNA Repair Endolysosome Epigenetic	-0.00205 -0.16 0.0475	0.145	0.0567 -0.0493	0.129	-0.0553
DNA Repair Endolysosome Epigenetic	-0.16 0.0475	0.00707	-0.0493		
Endolysosome Epigenetic	0.0475			0.0153	-0.2
Epigenetic	0.0475			0.0153	-0.2
		0.253	0.455		
Immercia Decisione	0.0050		0.157	0.0289	0.109
Immune Response	0.0358	0.0767	0.0581	0.0702	0.0156
Lipid Metabolism	0.142	0.227	0.19	0.0253	-0.0149
Metal Binding and Homeostasis	0.0433	0.0766	0.0837	-4.27e-06	-0.0435
Mitochondrial Metabolism	-0.0657	-0.106	-0.0748	0.126	-0.0134
Myelination					
Oxidative Stress	-0.0547	-0.0853	-0.07	0.226	0.0653
Proteostasis	-0.0892	0.0293	-0.0373	0.102	-0.0869
RNA Spliceosome					
Structural Stabilization	0.069	0.124	0.0665	0.0839	-0.0226
Synapse	0.0504	0.127	0.0528	0.116	-0.021
Tau Homeostasis					
Vasculature	0.0657	0.128	0.14	0.0711	-0.035
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Intestinal immune network for IgA production

Apoptosis	0.0884	0.0787	0.0976	-0.0548	-0.0371
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	-0.0959	0.0773	-0.17	-0.0875	-0.0695
Epigenetic					
Immune Response	0.0784	0.0803	-0.0192	0.0357	-0.0246
Lipid Metabolism	0.147	0.127	0.0962	-0.0117	-0.0382
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.151	0.00443	-0.0739	0.00934	-0.0441
RNA Spliceosome					
Structural Stabilization	0.282	0.242	0.226	-0.108	-0.127
Synapse	0.259	0.293	0.203	0.0326	-0.0216
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Chemoki	ne signaling	patnway

			5 5	. ,	
Apoptosis	0.162	0.192	0.227	0.126	0.048
APP Metabolism					
Autophagy	0.109	0.153	0.0918	0.211	0.016
Cell Cycle	0.0546	0.168	0.0846	0.209	-0.0395
DNA Repair	0.182	0.324	0.233	0.123	-0.0613
Endolysosome	0.00293	0.0693	0.0579	0.22	0.0252
Epigenetic	0.165	0.214	0.193	0.174	0.0981
Immune Response	0.0937	0.141	0.0884	0.069	-0.00699
Lipid Metabolism	0.19	0.274	0.225	0.105	0.0451
Metal Binding and Homeostasis	0.179	0.335	0.263	0.00932	-0.0803
Mitochondrial Metabolism	0.0995	0.105	0.139	0.116	0.0209
Myelination	0.293	0.361	0.457	0.405	0.156
Oxidative Stress	0.126	0.146	0.0517	0.374	0.155
Proteostasis	0.0932	0.124	0.0878	0.272	0.103
RNA Spliceosome					
Structural Stabilization	0.105	0.158	0.135	0.103	0.000153
Synapse	0.0783	0.179	0.104	0.123	0.0232
Tau Homeostasis					
Vasculature	0.0816	0.201	0.12	0.11	-0.0294
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Insulin secretion

		Ins	sulin secretion	on	
Apoptosis	-0.198	-0.0322	0.0558	-0.261	-0.161
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	0.0485	0.278	0.16	-0.105	0.00179
Epigenetic	0.101	0.0316	0.121	0.0848	0.126
Immune Response	-0.0361	0.178	0.134	-0.23	-0.155
Lipid Metabolism	0.106	0.252	0.289	-0.196	-0.13
Metal Binding and Homeostasis	0.0901	0.365	0.278	-0.248	-0.173
Mitochondrial Metabolism	-0.0118	0.0225	0.0218	-0.229	-0.165
Myelination					
Oxidative Stress					
Proteostasis	0.0557	0.0767	0.119	0.0521	0.0138
RNA Spliceosome					
Structural Stabilization	0.0772	0.191	0.167	-0.113	-0.0908
Synapse	0.0721	0.191	0.166	-0.0715	-0.0222
Tau Homeostasis					
Vasculature	0.0997	0.235	0.217	-0.102	-0.064
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Insulin signaling pathway

Apoptosis	0.15	0.272	0.26	0.0919	-0.0195
APP Metabolism					
Autophagy	0.156	0.373	0.259	0.0453	-0.00725
Cell Cycle	-0.0249	-0.00718	0.0263	0.217	0.101
DNA Repair					
Endolysosome	0.196	0.287	0.302	0.311	0.116
Epigenetic	0.0565	0.315	0.224	-0.0861	-0.116
Immune Response	0.16	0.283	0.252	0.0954	0.0212
Lipid Metabolism	0.189	0.361	0.353	0.0342	-0.0245
Metal Binding and Homeostasis	0.0734	0.0605	0.141	0.132	0.00517
Mitochondrial Metabolism	0.0618	0.239	0.155	-0.0335	-0.0855
Myelination	0.0386	0.143	0.186	0.188	0.0455
Oxidative Stress	0.071	0.304	0.185	0.0291	-0.13
Proteostasis	0.114	0.179	0.135	0.16	0.0682
RNA Spliceosome					
Structural Stabilization	0.145	0.324	0.28	0.133	0.0338
Synapse	0.105	0.29	0.226	0.102	-0.0436
Tau Homeostasis					
Vasculature	0.129	0.34	0.237	0.00933	-0.0816
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Apoptosis 0.0768 0.154 0.24 -0.0190.00898 APP Metabolism

Autophagy Cell Cycle -0.119 0.115 0.0289 -0.0653

DNA Repair

Endolysosome

Myelination

Proteostasis

Synapse

Vasculature

Oxidative Stress

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

Metal Binding and Homeostasis

Mitochondrial Metabolism

Epigenetic

Immune Response

Lipid Metabolism

-0.0498

0.106 -0.00449

-0.0615

0.18

0.0658

-0.0122

-0.0252

WT/WT

0.0771

-0.0337

0.201 0.195 0.0203 0.189

0.159

0.198

0.164

0.0997

0.0604

0.0335

WT/FC

0.123 0.0304 0.106 0.193

Glucagon signaling pathway

0.124

0.0676

0.232

0.147

0.0755

0.0859

FC/FC

-0.00886-0.0802-0.05570.00838 0.121

0.0223

-0.082

0.138

0.0277

0.0694

WT/VS

-0.0479-0.137-0.0757-0.0393

-0.0799

0.0326

-0.0677

0.12

0.075

-0.0539

0.0207

VS/VS

Regulation of lipolysis in adipocytes

	'	i tegalation t	n nporysis ii	i ddipodytos	,
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.345	0.371	0.347	0.0868	0.113
Lipid Metabolism	0.275	0.348	0.308	0.146	0.0616
Metal Binding and Homeostasis	0.18	0.382	0.231	0.101	-0.00146
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.119	0.132	0.101	0.301	0.147
RNA Spliceosome					
Structural Stabilization	0.211	0.356	0.314	0.234	0.0655
Synapse	0.0945	0.242	0.0895	0.0748	0.0633
Tau Homeostasis					
Vasculature	0.0937	0.248	0.214	0.0435	0.0494
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Adipocytokine signaling pathway **Apoptosis** 0.218 0.0768 0.34 0.23 0.252 APP Metabolism

Autophagy	0.153	0.398	0.323	-0.135	-0.141
Cell Cycle					
DNA Repair					
Endolysosome					

0.182

0.237

0.221

0.218

0.121

0.16

0.0676

0.275

0.207

0.265

WT/WT

Epigenetic

Myelination

Proteostasis

Synapse

Vasculature

Immune Response

Metal Binding and Homeostasis

Mitochondrial Metabolism

Lipid Metabolism

Oxidative Stress

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

Cell Cycle			
DNA Repair			
Endolysosome			

0.407

0.341

0.277

0.33

0.267

0.533

0.194

0.38

0.34

0.332

WT/FC

0.214

0.24

0.272

0.267

0.266

0.343

0.153

0.327

0.19

0.25

FC/FC

0.166

0.245

0.241

0.374

-0.0114

0.00199

0.22

0.248

0.219

0.435

WT/VS

-3.14e-05

0.0915

0.108

0.13

-0.0796

-0.0945

0.0199

0.122

0.051

0.216

VS/VS

		PPAR	signaling pa	athway	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	-0.124	-0.175	0.0212	0.0732	0.163
Lipid Metabolism	0.0231	-0.0449	-0.0115	0.165	0.0184
Metal Binding and Homeostasis	0.0867	0.0617	0.0449	0.301	0.144
Mitochondrial Metabolism	0.0699	0.0388	0.0765	0.18	0.0503
Myelination					
Oxidative Stress					
Proteostasis	-0.00298	0.0189	0.0221	0.183	0.0357
RNA Spliceosome					
Structural Stabilization					
Synapse	-0.103	-0.151	-0.0946	0.107	0.0849
Tau Homeostasis					
Vasculature	-0.000354	0.107	0.0428	0.189	0.101
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

ار	ገተ	ΚН	ı s	ec	re	TI(or	1

		Gi	IIVII 2601611	JII	
Apoptosis	0.0782	0.222	0.312	0.0165	-0.078
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	0.0604	0.144	0.103	0.349	0.0918
Epigenetic	0.0961	0.223	0.173	0.0963	0.00563
Immune Response	0.114	0.169	0.204	0.131	0.0796
Lipid Metabolism	0.17	0.28	0.36	-0.00742	-0.0341
Metal Binding and Homeostasis	0.0939	0.137	0.162	0.0172	0.0535
Mitochondrial Metabolism	0.151	0.259	0.365	0.00355	-0.0558
Myelination					
Oxidative Stress					
Proteostasis	0.11	0.194	0.212	0.123	0.0276
RNA Spliceosome					
Structural Stabilization	0.161	0.254	0.267	0.146	0.0677
Synapse	0.171	0.316	0.29	0.0529	0.0368
Tau Homeostasis					
Vasculature	0.175	0.426	0.327	0.0216	-0.0176
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

GnRH signaling pathway

Apoptosis	-0.0307	0.246	0.172	-0.00192	-0.0669
APP Metabolism					
Autophagy					
Cell Cycle	-0.219	0.0494	-0.0441	-0.0641	-0.16
DNA Repair					
Endolysosome	-0.0122	0.0137	-0.1	0.0975	0.022
Epigenetic	-0.00604	0.223	0.204	0.068	-0.048
Immune Response	0.0181	0.184	0.0898	0.0324	-0.0486
Lipid Metabolism	0.109	0.263	0.248	-0.0749	-0.13
Metal Binding and Homeostasis	0.0734	0.188	0.11	-0.0655	-0.0777
Mitochondrial Metabolism	0.031	0.169	0.18	-0.0864	-0.141
Myelination					
Oxidative Stress	-0.0114	0.229	0.127	0.157	-0.033
Proteostasis	0.0726	0.187	0.0454	0.184	-0.0094
RNA Spliceosome					
Structural Stabilization	0.00259	0.0863	-0.00475	0.127	0.0299
Synapse	0.0311	0.183	0.116	0.000117	-0.059
Tau Homeostasis					
Vasculature	-0.0612	0.103	-0.00875	0.0284	-0.00626
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Ovarian staroidogenesis

		Ovaria	ın steroidog	enesis	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.285	0.365	0.262	-0.0322	-0.0295
Lipid Metabolism	0.061	0.265	0.091	-0.0952	-0.163
Metal Binding and Homeostasis	0.121	0.264	0.136	-0.0893	-0.0899
Mitochondrial Metabolism	0.109	0.204	0.0312	0.0571	-0.101
Myelination					
Oxidative Stress					
Proteostasis	0.164	0.308	0.12	0.199	-0.0665
RNA Spliceosome					
Structural Stabilization					
Synapse	0.0942	0.399	0.122	-0.147	-0.157
Tau Homeostasis					
Vasculature	0.186	0.36	0.104	-0.046	0.0146
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Estrogen signaling pathway **Apoptosis** 0.173 0.213 0.194 0.246 APP Metabolism Autophagy 0.192 0.218 0.176 0.342 Cell Cycle 0.0608 0.168 0.0689 0.319

0.221

0.328

0.233

0.365

0.316

0.27

-0.0435

0.422

0.214

0.0918

0.287

0.247

WT/FC

0.154

0.238

0.105

0.314

0.224

0.251

0.0653

0.226

0.175

0.0734

0.244

0.158

FC/FC

0.366

0.22

0.221

0.0557

0.123

0.203

0.457

0.467

0.311

0.266

0.106

0.221

WT/VS

DNA Repair

Endolysosome

Immune Response

Metal Binding and Homeostasis

Mitochondrial Metabolism

Lipid Metabolism

Epigenetic

Myelination

Proteostasis

Synapse

Vasculature

Oxidative Stress

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

0.161

0.206

0.128

0.199

0.177

0.227

0.149

0.247

0.184

0.0966

0.166

0.123

WT/WT

0.107 0.139 0.0811 -0.0110.0248 0.115 0.367 0.235

0.178

0.126

0.0356

0.0366

VS/VS

0.131

0.138

0.121

Progesterone–mediated oocyte maturation

Apoptosis	0.197	0.238	0.32	0.165	0.0175
APP Metabolism					
Autophagy					
Cell Cycle	-0.0191	-0.0705	-0.0201	0.196	0.00283
DNA Repair	0.00333	0.0375	0.0687	0.0457	-0.12
Endolysosome	0.171	0.373	0.23	0.322	0.0666
Epigenetic	0.174	0.204	0.216	0.0989	0.0239
Immune Response	0.162	0.223	0.239	0.11	0.0126
Lipid Metabolism	0.221	0.421	0.375	0.0466	-0.0132
Metal Binding and Homeostasis	0.192	0.295	0.229	0.0646	-0.00487
Mitochondrial Metabolism	0.118	0.144	0.175	0.123	-0.0636
Myelination					
Oxidative Stress	0.0965	0.201	0.245	0.291	-0.0575
Proteostasis	0.00573	0.0204	0.034	0.164	-0.0186
RNA Spliceosome					
Structural Stabilization	0.065	0.0801	0.0621	0.177	0.0164
Synapse	0.168	0.338	0.257	0.0652	-0.025
Tau Homeostasis					
Vasculature	0.183	0.339	0.25	0.205	0.0627
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Prolactin signaling pathway

Apoptosis	0.0972	0.309	0.212	0.0298	-0.0283
APP Metabolism					
Autophagy	0.252	0.466	0.435	0.191	0.0489
Cell Cycle	0.0104	0.105	0.0889	0.227	0.148
DNA Repair					
Endolysosome	-0.00745	0.161	0.0232	0.314	0.0428
Epigenetic	0.0629	0.282	0.157	0.0442	-0.0512
Immune Response	0.108	0.249	0.191	0.13	0.0319
Lipid Metabolism	0.191	0.363	0.266	0.15	0.046
Metal Binding and Homeostasis	0.106	0.0669	0.0631	0.178	0.182
Mitochondrial Metabolism	0.176	0.259	0.231	0.106	0.0413
Myelination					
Oxidative Stress	0.141	0.36	0.237	0.341	0.0293
Proteostasis	0.111	0.212	0.134	0.228	0.103
RNA Spliceosome					
Structural Stabilization	0.141	0.322	0.189	0.225	0.0631
Synapse	0.182	0.334	0.192	0.233	0.0315
Tau Homeostasis					
Vasculature	0.212	0.39	0.303	0.241	-0.00328
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	VV I / VV I	WI/FC	FC/FC	WI/VS	VS/VS

Oxytocin signaling pathway

Apoptosis	-0.0475	0.0894	0.0716	0.0405	-0.051
APP Metabolism					
Autophagy	-0.106	0.17	0.121	-0.078	-0.23
Cell Cycle	-0.147	0.0805	-0.056	0.0353	-0.0679
DNA Repair	-0.0153	0.0763	-0.0301	0.106	0.0399
Endolysosome	0.0296	0.115	0.0717	0.0917	0.061
Epigenetic	-0.104	0.147	0.0452	-0.061	-0.113
Immune Response	0.0232	0.182	0.107	0.0468	-0.0311
Lipid Metabolism	-0.00145	0.156	0.149	-0.121	-0.182
Metal Binding and Homeostasis	0.00483	0.153	0.113	-0.0851	-0.12
Mitochondrial Metabolism	0.0314	0.0934	0.126	-0.0823	-0.101
Myelination					
Oxidative Stress	0.106	0.331	0.182	0.281	0.0786
Proteostasis	0.0673	0.238	0.115	0.129	-0.00126
RNA Spliceosome					
Structural Stabilization	-0.0135	0.0809	0.0374	0.0998	0.0322
Synapse	0.011	0.108	0.0809	-0.0406	-0.0318
Tau Homeostasis					
Vasculature	-0.0284	0.165	0.0487	-0.0253	-0.0506
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Relaxin signaling pathway

			g	y	
Apoptosis	0.151	0.21	0.228	0.206	0.125
APP Metabolism					
Autophagy	0.224	0.39	0.281	0.401	0.0786
Cell Cycle	0.0288	0.194	0.137	0.18	-0.00622
DNA Repair					
Endolysosome	0.0785	0.201	0.159	0.255	0.032
Epigenetic	0.155	0.279	0.266	0.157	0.06
Immune Response	0.127	0.239	0.178	0.132	0.0258
Lipid Metabolism	0.2	0.402	0.327	0.071	-0.0448
Metal Binding and Homeostasis	0.198	0.307	0.269	0.0642	-0.00682
Mitochondrial Metabolism	0.158	0.202	0.254	0.0792	-0.0104
Myelination					
Oxidative Stress	0.128	0.329	0.212	0.322	0.0811
Proteostasis	0.214	0.215	0.19	0.326	0.22
RNA Spliceosome					
Structural Stabilization	0.269	0.271	0.271	0.243	0.189
Synapse	0.133	0.196	0.169	0.133	0.0648
Tau Homeostasis					
Vasculature	0.222	0.325	0.248	0.173	0.124
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Growth hormone synthesis, secretion and action

	Glown	i ilolillolle s	syriuicoio, oc	ciellon and	action
Apoptosis	0.146	0.301	0.259	0.0296	-0.059
APP Metabolism					
Autophagy	0.149	0.396	0.319	0.0834	-0.0927
Cell Cycle	0.0259	0.278	0.137	0.16	-0.000444
DNA Repair	0.111	0.341	0.323	-0.145	-0.135
Endolysosome	0.137	0.337	0.116	0.374	0.0832
Epigenetic	0.136	0.275	0.211	0.114	0.0361
Immune Response	0.126	0.326	0.194	0.0697	-0.0306
Lipid Metabolism	0.17	0.391	0.298	0.0227	-0.0434
Metal Binding and Homeostasis	0.157	0.31	0.22	0.0122	-0.0527
Mitochondrial Metabolism	0.157	0.264	0.262	-0.0538	-0.0782
Myelination					
Oxidative Stress	0.0734	0.277	0.164	0.368	0.011
Proteostasis	0.106	0.158	0.148	0.149	0.0239
RNA Spliceosome					
Structural Stabilization	0.162	0.309	0.229	0.133	0.00358
Synapse	0.104	0.271	0.176	0.0323	-0.0378
Tau Homeostasis					
Vasculature	0.17	0.329	0.23	0.0845	0.00486
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Apoptosis 0.0268 -0.0270.15 0.0533 APP Metabolism

0.101

0.122

0.131

0.119

0.182

0.0262

0.172

0.0862

0.125

0.109

WT/WT

Autophagy Cell Cycle **DNA Repair**

Endolysosome

Epigenetic

Immune Response

Lipid Metabolism Metal Binding and Homeostasis

Myelination

Proteostasis

Synapse

Vasculature

Oxidative Stress

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

Mitochondrial Metabolism

0.105 0.0893

0.232

0.165

WT/FC

-0.0787

0.0959

0.169

0.19

0.302

0.174

-0.04260.18

0.178

0.237

0.192

FC/FC

Thyroid hormone synthesis

0.12

0.168

0.22

0.251

0.256

0.143

-0.064

-0.129

-0.184

-0.0337

0.232

0.11

-0.0112

-0.166

-0.0233

WT/VS

-0.0243

0.0411

-0.093

-0.118

-0.185

-0.0543

0.256

0.0654

-0.0525

-0.101

0.0318

VS/VS

Thyroid horn	none signal	ling pathway

Apoptosis	0.0388	0.266	0.15	-0.0606	-0.0778
APP Metabolism					
Autophagy	0.101	0.329	0.219	0.121	-0.0594
Cell Cycle	-0.0414	0.0726	-0.0435	0.0998	-0.0167
DNA Repair	0.0396	0.218	0.106	-0.0083	-0.0159
Endolysosome	0.0234	0.167	0.0875	0.291	0.158
Epigenetic	0.0643	0.209	0.103	0.0173	-0.0552
Immune Response	0.0455	0.23	0.0974	0.0389	-0.0275
Lipid Metabolism	0.141	0.301	0.24	0.0324	-0.0245
Metal Binding and Homeostasis	0.0863	0.201	0.143	-0.00439	-0.0298
Mitochondrial Metabolism	0.161	0.316	0.267	0.0469	-0.0162
Myelination	-0.00722	0.0353	-0.0195	0.284	0.0522
Oxidative Stress	0.0172	0.146	0.028	0.1	-0.065
Proteostasis	0.115	0.251	0.172	0.0721	-0.00929
RNA Spliceosome					
Structural Stabilization	0.0702	0.226	0.139	0.103	-0.029
Synapse	0.142	0.265	0.204	0.0629	-0.0192
Tau Homeostasis					
Vasculature	0.105	0.307	0.194	-0.0743	-0.0878
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Parathyroid hormone synthesis, secretion and action				
Apoptosis	0.129	0.167	0.148	0.0898	0.0603
APP Metabolism					
Autophagy					
Cell Cycle	0.108	0.254	0.0836	0.148	0.0299
DNA Repair					
Endolysosome	0.176	0.243	0.131	0.161	0.0147
Epigenetic	0.153	0.273	0.159	0.107	0.107
Immune Response	0.0747	0.243	0.0822	0.00662	-0.0527
Lipid Metabolism	0.15	0.312	0.171	-0.00541	-0.0432
Metal Binding and Homeostasis	0.164	0.34	0.2	0.0868	-0.00372
Mitochondrial Metabolism	0.14	0.151	0.132	0.0265	-0.0175
Myelination					
Oxidative Stress	0.124	0.202	0.0335	0.26	0.0781
Proteostasis	0.154	0.159	0.126	0.193	0.113
RNA Spliceosome					
Structural Stabilization	0.172	0.328	0.245	0.046	-0.022
Synapse	0.152	0.249	0.178	0.0644	0.0306
Tau Homeostasis					

0.225

WT/FC

0.128

FC/FC

0.107

WT/VS

0.00468

VS/VS

Vasculature

0.164

WT/WT

M	lelanogenes	is

		IVI	iciai logel les	15	
Apoptosis	0.0734	0.232	0.13	-0.0358	-0.0604
APP Metabolism					
Autophagy					
Cell Cycle	-0.142	0.115	-0.0789	0.000809	-0.145
DNA Repair					
Endolysosome	0.0921	0.236	0.0619	0.185	0.0288
Epigenetic	0.094	0.194	0.0662	0.0219	0.0111
Immune Response	0.032	0.173	0.0384	-0.0439	-0.0864
Lipid Metabolism	0.0883	0.29	0.221	-0.0762	-0.118
Metal Binding and Homeostasis	0.0859	0.279	0.179	-0.04	-0.0788
Mitochondrial Metabolism	0.0141	0.118	0.0833	-0.0633	-0.122
Myelination					
Oxidative Stress					
Proteostasis	0.0641	0.167	0.0383	0.0713	-0.0237
RNA Spliceosome					
Structural Stabilization	0.0739	0.148	0.0971	0.075	-0.0114
Synapse	0.0544	0.178	0.0789	0.000279	-0.0281
Tau Homeostasis					
Vasculature	-0.00751	0.168	0.0123	0.0111	-0.0565
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Renin secretion				
Apoptosis	0.29	0.142	0.312	0.169	0.0545
APP Metabolism					
Autophagy					
Cell Cycle	-0.0191	0.0422	-0.0308	0.11	-0.06
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.0426	0.0945	0.0508	0.00351	-0.00968
Lipid Metabolism	0.202	0.163	0.316	0.00321	-0.0354
Metal Binding and Homeostasis	-0.00823	0.13	0.101	-0.0663	-0.109
Mitochondrial Metabolism	0.00671	0.0331	0.1	-0.249	-0.265
Myelination					
Oxidative Stress					
Proteostasis	0.12	0.153	0.192	0.0751	-0.0344
RNA Spliceosome					
Structural Stabilization	0.099	0.13	0.0508	0.179	0.0518
Synapse	0.0519	0.129	0.0765	-0.0276	-0.0389
Tau Homeostasis					
Vasculature	0.0549	0.137	0.102	0.0124	0.0157
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Renin-angiotensin system				
0.0487	0.238	0.00696	-0.193	-0.126
-0.0241	0.206	0.103	-0.246	-0.132
0.19	0.293	0.0974	-0.101	-0.0943
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	-0.0241	0.0487 0.238 -0.0241 0.206	0.0487 0.238 0.00696 -0.0241 0.206 0.103 0.19 0.293 0.0974	0.0487 0.238 0.00696 -0.193 -0.0241 0.206 0.103 -0.246 0.19 0.293 0.0974 -0.101

Aldosterone synthesis and secretion

Apoptosis	-0.116	0.125	0.0577	-0.155	-0.116
APP Metabolism					
Autophagy					
Cell Cycle	-0.219	0.0987	-0.115	-0.246	-0.191
DNA Repair					
Endolysosome	0.146	0.273	0.181	0.033	0.0388
Epigenetic	0.0409	0.163	0.072	0.0409	0.042
Immune Response	-0.014	0.212	0.112	-0.153	-0.146
Lipid Metabolism	0.131	0.317	0.274	-0.15	-0.113
Metal Binding and Homeostasis	0.0478	0.315	0.207	-0.158	-0.119
Mitochondrial Metabolism	-0.0341	0.118	0.127	-0.279	-0.213
Myelination					
Oxidative Stress					
Proteostasis	0.131	0.189	0.171	0.0741	0.0443
RNA Spliceosome					
Structural Stabilization	0.0253	0.135	0.0757	0.00159	-0.00747
Synapse	0.12	0.29	0.218	-0.0796	-0.0233
Tau Homeostasis					
Vasculature	0.101	0.272	0.158	-0.0382	-0.0181
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Cortisol synthesis and secretion

		Cortisors	ynunesis and	Secretion	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic	0.0914	0.165	0.0965	0.159	0.109
Immune Response	0.0727	0.212	0.0017	-0.0258	-0.0453
Lipid Metabolism	0.133	0.314	0.229	-0.139	-0.125
Metal Binding and Homeostasis	0.128	0.35	0.183	-0.0378	-0.0691
Mitochondrial Metabolism	0.0882	0.109	0.203	-0.223	-0.152
Myelination					
Oxidative Stress					
Proteostasis	0.124	0.0846	0.109	0.0823	0.045
RNA Spliceosome					
Structural Stabilization	0.287	0.239	0.194	0.144	0.156
Synapse	0.16	0.305	0.189	-0.02	0.0483
Tau Homeostasis					
Vasculature	0.228	0.301	0.173	0.137	0.158
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Cardiac muscle contraction					
Apoptosis						
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic						
Immune Response						
Lipid Metabolism	0.0811	0.163	0.253	-0.0122	-0.0237	
Metal Binding and Homeostasis	-0.0967	-0.0994	-0.0615	-0.1	-0.0855	
Mitochondrial Metabolism	-0.431	-0.642	-0.632	0.0258	-0.0775	
Myelination						
Oxidative Stress						
Proteostasis	0.181	0.29	0.329	-0.13	-0.0724	
RNA Spliceosome						
Structural Stabilization	-0.158	-0.0641	-0.174	-0.0789	-0.0914	
Synapse	0.143	0.224	0.254	-0.115	0.0134	
Tau Homeostasis						
Vasculature	-0.0107	0.136	0.0856	-0.224	-0.084	
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

Adrenergic signaling in cardiomyocytes 0.0686 0.0751 0.299

Apoptosis	0.0449	0.0686	0.0751	0.299	0.0762
APP Metabolism					
Autophagy					
Cell Cycle	-0.0707	0.0142	0.0138	0.202	0.02
DNA Repair					
Endolysosome	0.0763	0.217	0.165	0.0915	0.0498
Epigenetic	0.178	0.169	0.233	0.28	0.175
Immune Response	-0.0115	0.15	0.0497	0.0418	-0.0754
Lipid Metabolism	0.0518	0.215	0.171	0.0199	-0.0938
Metal Binding and Homeostasis	0.0326	0.216	0.186	-0.105	-0.13
Mitochondrial Metabolism	-0.01	0.0725	0.102	-0.0102	-0.0666
Myelination					
Oxidative Stress	0.00102	0.0993	0.102	0.266	0.0643
Proteostasis	0.115	0.151	0.156	0.148	0.0427
RNA Spliceosome					
Structural Stabilization	-0.0694	0.00528	-0.0547	0.141	-0.00243
Synapse	0.0547	0.174	0.152	-0.00578	-0.00379
Tau Homeostasis					
Vasculature	0.0296	0.205	0.109	-0.072	-0.0524
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Vascular smooth muscle contraction -0.0246 0.0604 0.0238 -0.0515

Apoptosis	-0.0246	0.0604	0.0238	-0.0515	-0.103
APP Metabolism					
Autophagy	0.0308	0.143	0.087	0.000483	0.0113
Cell Cycle	-0.127	0.0151	-0.0284	-0.106	-0.176
DNA Repair					
Endolysosome	0.0281	0.0171	-0.107	0.126	0.137
Epigenetic					
Immune Response	0.0803	0.118	0.103	0.0325	-0.0319
Lipid Metabolism	0.0774	0.095	0.152	-0.0397	-0.0791
Metal Binding and Homeostasis	0.00974	0.1	0.0753	-0.0682	-0.0851
Mitochondrial Metabolism	0.0557	0.0703	0.0815	0.0261	-0.0658
Myelination					
Oxidative Stress					
Proteostasis	0.0597	0.1	0.0925	0.169	-0.013
RNA Spliceosome					
Structural Stabilization	0.0828	0.162	0.116	0.0232	0.0164
Synapse	0.0418	0.102	0.0574	0.00592	-0.0446
Tau Homeostasis					
Vasculature	0.061	0.138	0.041	0.0023	-0.00557
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Salivary secretion

	Sallvary secretion				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.0413	0.206	0.0954	-0.116	-0.161
Lipid Metabolism	0.161	0.338	0.329	-0.152	-0.144
Metal Binding and Homeostasis	0.0301	0.317	0.21	-0.239	-0.19
Mitochondrial Metabolism	0.115	0.276	0.302	-0.2	-0.134
Myelination					
Oxidative Stress					
Proteostasis	0.115	0.275	0.26	-0.0944	0.00935
RNA Spliceosome					
Structural Stabilization	0.0254	0.147	0.104	-0.104	-0.0765
Synapse	0.0404	0.274	0.253	-0.239	-0.119
Tau Homeostasis					
Vasculature	0.0555	0.363	0.273	-0.2	-0.126
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Castric acid secretion

	Gastric acid secretion						
Apoptosis							
APP Metabolism							
Autophagy							
Cell Cycle	-0.244	-0.0651	-0.195	-0.0606	-0.154		
DNA Repair							
Endolysosome	0.0685	0.246	0.16	-0.0215	0.00954		
Epigenetic							
Immune Response	-0.0669	0.0864	0.0198	-0.156	-0.153		
Lipid Metabolism	0.0969	0.244	0.238	-0.127	-0.143		
Metal Binding and Homeostasis	0.0286	0.226	0.142	-0.0423	-0.105		
Mitochondrial Metabolism	0.0647	0.206	0.29	-0.252	-0.22		
Myelination							
Oxidative Stress							
Proteostasis	0.0485	0.204	0.214	-0.0697	-0.105		
RNA Spliceosome							
Structural Stabilization	-0.0281	0.064	0.0505	0.0384	-0.035		
Synapse	0.0171	0.121	0.131	-0.0554	-0.0691		
Tau Homeostasis							
Vasculature	-0.0657	0.0736	0.0749	-0.0865	-0.0603		
·	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

		creatic secre	etion	
3	0.061	0.227	0.292	-0.155

Apoptosis	0.061	0.227	0.292	-0.155	-0.14
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	-0.14	-0.0205	-0.13	0.0434	-0.101
Epigenetic					
Immune Response	0.0654	0.18	0.143	0.0108	-0.0666
Lipid Metabolism	0.0732	0.184	0.234	-0.115	-0.125
Metal Binding and Homeostasis	0.0894	0.287	0.241	-0.177	-0.146
Mitochondrial Metabolism	0.13	0.245	0.397	-0.143	-0.177
Myelination					
Oxidative Stress					
Proteostasis	0.0449	0.294	0.252	-0.076	-0.106
RNA Spliceosome					
Structural Stabilization	0.0243	0.163	0.111	-0.00318	-0.104
Synapse	0.0396	0.227	0.214	-0.151	-0.141
Tau Homeostasis					
Vasculature	0.0765	0.354	0.326	-0.219	-0.222
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Bile secretion				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.24	0.249	0.193	0.0643	-0.0498
Lipid Metabolism	0.109	0.205	0.169	0.0185	-0.0267
Metal Binding and Homeostasis	0.273	0.403	0.258	0.0742	0.0169
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0508	0.22	0.184	0.00586	-0.0675
RNA Spliceosome					
Structural Stabilization	0.277	0.192	0.196	0.329	0.162
Synapse	0.151	0.251	0.158	0.108	0.0631
Tau Homeostasis					
Vasculature	0.142	0.245	0.213	-0.0125	0.0514
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Carbohydrate digestion and absorption

	O.	arborryarato	digestion a	na absorptic	/ 11
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.0618	0.235	0.263	-0.0621	-0.069
Lipid Metabolism	0.116	0.214	0.342	-0.0339	-0.0784
Metal Binding and Homeostasis	0.0898	0.304	0.447	-0.3	-0.126
Mitochondrial Metabolism	0.00272	0.0932	0.208	-0.14	-0.168
Myelination					
Oxidative Stress					
Proteostasis	0.209	0.273	0.363	0.17	0.177
RNA Spliceosome					
Structural Stabilization	0.235	0.311	0.454	0.071	-0.0377
Synapse	0.182	0.195	0.39	-0.129	-0.0762
Tau Homeostasis					
Vasculature	0.169	0.347	0.433	-0.122	-0.0804
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Protein digestion and absorption

	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
Vasculature	0.229	0.265	0.266	-0.0466	0.155
Tau Homeostasis					
Synapse	0.264	0.225	0.241	0.0101	0.118
Structural Stabilization	0.276	0.172	0.22	0.0989	0.23
RNA Spliceosome					
Proteostasis	0.34	0.248	0.248	0.153	0.241
Oxidative Stress					
Myelination					
Mitochondrial Metabolism					
etal Binding and Homeostasis	0.294	0.324	0.273	0.0913	0.134
Lipid Metabolism	0.0618	0.0946	0.179	-0.0968	0.00281
Immune Response	0.179	0.225	0.0894	-0.061	0.026
Epigenetic					
Endolysosome	0.156	0.157	0.101	-0.0658	-0.0304
DNA Repair					
Cell Cycle					
Autophagy					
APP Metabolism					
Apoptosis					

	Fat digestion and absorption					
Apoptosis				•		
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic						
Immune Response	0.131	0.117	0.141	0.232	0.367	
Lipid Metabolism	-0.00682	-0.0901	-0.093	0.159	0.0919	
Metal Binding and Homeostasis	-0.114	-0.342	-0.185	0.0634	0.0312	
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis	-0.0501	-0.0178	-0.0498	0.191	0.169	
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

Cholesterol metabolism

		Ciloic	Storor metal	20113111	
Apoptosis	-0.0493	-0.127	-0.13	0.0871	0.0186
APP Metabolism	0.0264	0.216	0.0768	-0.089	0.08
Autophagy	0.0128	0.116	0.147	-0.073	-0.0335
Cell Cycle					
DNA Repair					
Endolysosome	-0.0491	-0.0453	-0.0127	-0.0317	-0.0162
Epigenetic					
Immune Response	0.0981	0.111	0.085	0.01	0.0582
Lipid Metabolism	-0.0415	-0.08	-0.0478	-0.0222	-0.0323
Metal Binding and Homeostasis	0.162	0.214	0.19	0.0509	0.113
Mitochondrial Metabolism	-0.173	-0.438	-0.329	0.151	-0.0606
Myelination					
Oxidative Stress					
Proteostasis	0.0103	0.0896	0.0809	-0.0497	0.00261
RNA Spliceosome					
Structural Stabilization	0.00351	0.0404	0.0637	-0.0219	0.101
Synapse	-0.176	-0.144	-0.135	-0.105	-0.068
Tau Homeostasis					
Vasculature	0.0666	0.00846	0.0678	-0.00323	0.128
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Vitamin dig	gestion and	absorption	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.0892	0.0717	0.0246	0.0603	0.122
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Mineral absorption							
Apoptosis								
APP Metabolism								
Autophagy								
Cell Cycle								
DNA Repair								
Endolysosome	0.103	0.0575	0.156	0.149	0.101			
Epigenetic								
Immune Response	0.0114	0.185	0.044	-0.019	-0.223			
Lipid Metabolism	-0.00461	0.157	0.172	-0.108	-0.166			
letal Binding and Homeostasis	0.0331	0.166	0.113	-0.0902	-0.117			
Mitochondrial Metabolism								
Myelination								
Oxidative Stress								
Proteostasis	0.13	0.293	0.258	-0.0088	-0.145			
RNA Spliceosome								
Structural Stabilization	0.0509	0.263	0.243	-0.0957	-0.156			
Synapse	0.119	0.334	0.268	-0.286	-0.217			
Tau Homeostasis								
Vasculature	0.103	0.353	0.352	-0.208	-0.205			
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS			

Vasopressin-regulated water reabsorption

	vac	oprocent re	galatoa mat	or roubcorp	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle	-0.159	0.156	-0.149	0.0483	-0.265
DNA Repair					
Endolysosome	0.0333	0.285	0.0715	0.151	-0.102
Epigenetic					
Immune Response	-0.0811	0.029	-0.177	0.305	-0.0124
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	-0.0509	0.0254	-0.121	0.0868	-0.0609
RNA Spliceosome					
Structural Stabilization	-0.162	-0.108	-0.234	0.129	-0.127
Synapse	-0.0154	0.196	-0.0234	0.0827	-0.0584
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Aldosterone–regulated sodium reabsorption

Apoptosis	0.101	0.467	0.35	-0.0451	-0.144
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic	0.19	0.418	0.296	0.115	0.0442
Immune Response	0.116	0.318	0.321	-0.00376	-0.0327
Lipid Metabolism	0.168	0.371	0.312	-0.0269	-0.0486
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.122	0.393	0.283	-0.0749	-0.0691
RNA Spliceosome					
Structural Stabilization	0.145	0.371	0.366	0.0763	-0.0326
Synapse	0.113	0.248	0.284	-0.0678	0.00952
Tau Homeostasis					
Vasculature	0.141	0.441	0.374	-0.132	-0.0922
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Endocrine and other factor-regulated calcium reabsorption						
Apoptosis							
APP Metabolism							
Autophagy							
Cell Cycle							
DNA Repair							
Endolysosome	0.0999	0.253	0.174	0.271	0.0416		
Epigenetic							
Immune Response	-0.0138	0.223	0.01	-0.165	-0.179		
Lipid Metabolism	0.0199	0.18	0.217	-0.157	-0.199		
Metal Binding and Homeostasis	0.0208	0.331	0.262	-0.315	-0.243		
Mitochondrial Metabolism							
Myelination							
Oxidative Stress							
Proteostasis	0.0954	0.263	0.132	0.0608	-0.0791		
RNA Spliceosome							
Structural Stabilization	0.0696	0.28	0.191	-0.0413	-0.103		
Synapse	0.108	0.227	0.256	-0.0269	-0.0426		
Tau Homeostasis							
Vasculature	0.0917	0.341	0.28	-0.305	-0.194		
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

	Proximal tubule bicarbonate reclamation				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.198	0.0346	0.206	0.107	0.108
Metal Binding and Homeostasis	0.231	0.136	0.246	0.123	0.0775
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Collecting duct acid secretion					
Apoptosis						
APP Metabolism						
Autophagy	-0.186	-0.315	-0.289	0.26	0.000185	
Cell Cycle						
DNA Repair						
Endolysosome	-0.215	-0.353	-0.337	0.248	-0.0125	
Epigenetic						
Immune Response						
Lipid Metabolism						
Metal Binding and Homeostasis						
					A contract of the contract of	

Lipid Metabolism Metal Binding and Homeostasis					
Mitochondrial Metabolism	-0.215	-0.353	-0.337	0.248	-0.0125
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse	-0.281	-0.383	-0.404	0.215	-0.0847
Tau Homeostasis					
Vasculature					

WT/WT WT/FC FC/FC WT/VS

VS/VS

Gluta	matergic sy	napse

		Giula	matergic syr	iapse	
Apoptosis	-0.00958	0.114	0.245	-0.113	-0.118
APP Metabolism					
Autophagy					
Cell Cycle	-0.0883	0.187	0.0126	0.011	-0.153
DNA Repair					
Endolysosome	-0.0221	0.208	0.165	-0.108	-0.0888
Epigenetic					
Immune Response	0.0489	0.308	0.197	-0.139	-0.137
Lipid Metabolism	0.0783	0.25	0.205	-0.189	-0.155
Metal Binding and Homeostasis	0.016	0.215	0.167	-0.217	-0.193
Mitochondrial Metabolism	0.0292	0.112	0.148	-0.142	-0.198
Myelination					
Oxidative Stress					
Proteostasis	0.0862	0.282	0.19	-0.0191	-0.0829
RNA Spliceosome					
Structural Stabilization	0.164	0.369	0.297	0.0566	0.0668
Synapse	0.106	0.325	0.269	-0.134	-0.0568
Tau Homeostasis					
Vasculature	0.0867	0.377	0.168	-0.161	-0.0399
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

CARAgraic synance

	GABAergic synapse				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	0.014	0.297	0.0931	0.143	-0.124
Epigenetic					
Immune Response					
Lipid Metabolism	0.106	0.388	0.162	-0.192	-0.19
Metal Binding and Homeostasis	0.122	0.432	0.238	-0.0965	-0.167
Mitochondrial Metabolism	-0.0391	0.115	-0.157	0.0408	-0.0752
Myelination					
Oxidative Stress					
Proteostasis	-0.0537	0.183	-0.0758	0.0719	-0.134
RNA Spliceosome					
Structural Stabilization	-0.0493	0.141	-0.0939	0.0927	-0.0602
Synapse	0.0698	0.337	0.171	-0.121	-0.0981
Tau Homeostasis					
Vasculature	0.25	0.496	0.201	-0.00301	0.0785
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Cholinergic synapse

Apoptosis	0.0174	0.144	0.204	0.116	0.0102
APP Metabolism					
Autophagy	0.127	0.202	0.216	0.345	0.0908
Cell Cycle	-0.026	0.157	0.0361	0.159	0.0285
DNA Repair					
Endolysosome	0.0171	0.26	0.113	0.172	-0.123
Epigenetic	0.0753	0.171	0.141	0.16	0.0821
Immune Response	0.0578	0.316	0.163	0.0395	-0.0815
Lipid Metabolism	0.0827	0.383	0.266	-0.0552	-0.145
Metal Binding and Homeostasis	0.144	0.383	0.28	-0.013	-0.0616
Mitochondrial Metabolism	0.123	0.196	0.281	-0.0145	-0.0259
Myelination					
Oxidative Stress	0.176	0.269	0.0976	0.663	0.246
Proteostasis	0.107	0.183	0.159	0.186	0.0508
RNA Spliceosome					
Structural Stabilization	0.101	0.24	0.17	0.182	0.0289
Synapse	0.107	0.334	0.177	0.0166	-0.0219
Tau Homeostasis					
Vasculature	0.05	0.292	0.184	0.00985	-0.0851
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Dopaminergic synapse

		•	5 ,	•	
Apoptosis	-0.0188	0.0793	0.165	0.11	-0.0169
APP Metabolism	0.0724	0.454	0.451	-0.428	-0.197
Autophagy	0.0578	0.234	0.182	0.112	-0.0891
Cell Cycle	-0.107	-0.0109	0.0172	0.118	-0.0461
DNA Repair					
Endolysosome	-0.00741	0.169	0.198	-0.0035	-0.0755
Epigenetic	0.102	0.234	0.27	0.044	0.0314
Immune Response	-0.126	0.101	0.0492	-0.0719	-0.144
Lipid Metabolism	0.107	0.207	0.199	0.0692	0.0269
Metal Binding and Homeostasis	-0.0598	0.087	0.0925	-0.0553	-0.103
Mitochondrial Metabolism	-0.0336	0.0406	0.0982	-0.0291	-0.115
Myelination					
Oxidative Stress	-0.0571	0.166	0.0967	0.189	-0.127
Proteostasis	0.0925	0.161	0.189	0.108	0.0384
RNA Spliceosome					
Structural Stabilization	-0.0456	0.0572	0.0818	0.101	-0.00843
Synapse	0.00118	0.118	0.102	-0.00189	-0.0459
Tau Homeostasis					
Vasculature	0.0143	0.16	0.0922	0.0292	-0.0392
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Serotonergic synapse

			•	•	
Apoptosis	-0.0203	0.054	0.0684	-0.0376	-0.0534
APP Metabolism					
Autophagy					
Cell Cycle	-0.102	0.145	-0.0415	-0.0012	-0.141
DNA Repair					
Endolysosome	-0.102	0.0878	0.0151	-0.0574	-0.17
Epigenetic					
Immune Response	-0.012	0.191	0.0715	-0.0821	-0.121
Lipid Metabolism	0.027	0.199	0.185	-0.157	-0.194
letal Binding and Homeostasis	-0.00123	0.111	0.114	-0.117	-0.172
Mitochondrial Metabolism	0.0871	0.204	0.206	-0.0565	-0.191
Myelination					
Oxidative Stress	-0.0206	0.159	-0.0133	0.074	-0.102
Proteostasis	0.0488	0.21	0.124	0.0705	-0.0513
RNA Spliceosome					
Structural Stabilization	0.049	0.219	0.144	0.137	-0.0433
Synapse	0.0304	0.236	0.154	-0.09	-0.149
Tau Homeostasis					
Vasculature	0.0354	0.358	0.109	-0.0692	-0.154
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Long-term potentiation

		Long	term poten	liation	
Apoptosis	0.0055	0.151	0.216	-0.099	-0.0658
APP Metabolism					
Autophagy					
Cell Cycle	-0.157	0.0293	-0.0184	-0.105	-0.119
DNA Repair					
Endolysosome	-0.12	0.13	-0.0608	0.0703	-0.0554
Epigenetic	0.00364	0.163	0.197	-0.124	-0.0469
Immune Response	-0.0382	0.228	0.163	-0.181	-0.12
Lipid Metabolism	0.0992	0.307	0.325	-0.238	-0.217
Metal Binding and Homeostasis	0.00191	0.159	0.155	-0.155	-0.158
Mitochondrial Metabolism	0.0347	0.0752	0.115	-0.0633	-0.119
Myelination					
Oxidative Stress					
Proteostasis	0.077	0.214	0.188	-0.0295	-0.0302
RNA Spliceosome					
Structural Stabilization	-0.0696	0.0325	-0.00735	0.0867	0.0017
Synapse	0.0286	0.162	0.172	-0.0605	-0.0693
Tau Homeostasis					
Vasculature	-0.178	0.0709	-0.0332	-0.0213	-0.156
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Long-term depression

Apoptosis	-0.0267	0.0378	0.0857	0.0971	-0.0159
APP Metabolism					
Autophagy					
Cell Cycle	-0.0911	0.17	-0.00647	0.145	-0.0685
DNA Repair					
Endolysosome	-0.0346	0.0742	0.00316	0.0823	0.0455
Epigenetic					
Immune Response	-0.06	0.0319	0.0182	0.102	-0.0269
Lipid Metabolism	0.11	0.182	0.27	0.00101	-0.0774
Metal Binding and Homeostasis	-0.000299	0.0685	0.137	-0.0465	-0.104
Mitochondrial Metabolism	0.103	0.117	0.203	0.0608	-0.0169
Myelination					
Oxidative Stress					
Proteostasis	0.0498	0.132	0.145	0.117	0.0119
RNA Spliceosome					
Structural Stabilization	0.105	0.203	0.211	0.151	0.0263
Synapse	0.031	0.122	0.222	-0.0229	-0.0349
Tau Homeostasis					
Vasculature	0.131	0.369	0.213	0.00513	-0.0448
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

-0.0785

Retrograde endocannabinoid signaling

0.0752

-0.0964

0.0764

-0.237

Autophagy

APP Metabolism

Apoptosis

Cell Cycle

DNA Repair

Epigenetic

Myelination

Proteostasis

Synapse

Vasculature

Oxidative Stress

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

Endolysosome

Immune Response

Metal Binding and Homeostasis

Mitochondrial Metabolism

Lipid Metabolism

-0.0194

-0.149

0.164

0.103

-0.0954

-0.0454

0.0191

0.00107

0.0555

-0.418

-0.331

-0.0485

-0.000893

0.0263

0.0599

WT/WT

0.191

0.264

0.195

0.169

-0.613

-0.418

0.051

0.134

0.272

0.289

WT/FC

0.161

0.222

0.193

0.126

-0.561

-0.368

-0.00658

0.0666

0.212

0.116

FC/FC

-0.0467

-0.162

-0.181

-0.0366

0.015

0.144

-0.00251

0.0191

-0.19

-0.198

WT/VS

-0.179

-0.141

-0.164

-0.0972

-0.107

-0.116

-0.0914

-0.0623

-0.14

-0.0944

VS/VS

Synantic vacials avala

		Syna	ptic vesicle	cycle	
Apoptosis					
APP Metabolism					
Autophagy	-0.125	-0.202	-0.212	0.275	-0.00533
Cell Cycle					
DNA Repair					
Endolysosome	-0.0753	-0.0561	-0.0793	0.182	-0.0349
Epigenetic					
Immune Response	0.122	0.0888	0.0336	0.283	0.235
Lipid Metabolism	0.00795	0.101	0.0286	-0.204	-0.123
Metal Binding and Homeostasis	0.0949	0.315	0.262	-0.213	-0.153
Mitochondrial Metabolism	-0.203	-0.324	-0.32	0.28	-0.0264
Myelination					
Oxidative Stress					
Proteostasis	0.05	0.191	0.162	0.229	0.041
RNA Spliceosome					
Structural Stabilization	0.0585	0.00761	0.0955	0.126	0.157
Synapse	-0.00403	0.0919	0.024	0.0535	-0.0575
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Neurotrophin signaling pathway				
0.404	0.464	0.400		

		•	•	• • •	
Apoptosis	0.12	0.184	0.164	0.166	0.0432
APP Metabolism					
Autophagy	0.146	0.315	0.192	0.212	0.0344
Cell Cycle	0.0139	-0.00456	0.0774	0.279	0.167
DNA Repair	0.283	0.175	0.206	0.345	0.233
Endolysosome	0.0323	0.115	0.00858	0.215	-0.0115
Epigenetic	0.103	0.138	0.175	0.182	0.0325
Immune Response	0.098	0.135	0.121	0.205	0.0638
Lipid Metabolism	0.194	0.247	0.203	0.24	0.0926
Metal Binding and Homeostasis	0.0842	0.0333	0.1	0.0444	0.00074
Mitochondrial Metabolism	0.114	0.212	0.194	0.0977	0.00757
Myelination	0.103	0.12	0.128	0.363	0.27
Oxidative Stress	0.1	0.227	0.193	0.361	0.101
Proteostasis	0.0593	0.113	0.0449	0.247	0.108
RNA Spliceosome					
Structural Stabilization	0.0872	0.146	0.103	0.266	0.0994
Synapse	0.0351	0.164	0.0957	0.102	-0.0197
Tau Homeostasis					
Vasculature	0.0306	0.19	0.129	0.168	-0.0332
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Pho	ototransduct	ion	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis	-0.146	0.0478	-0.115	0.0527	0.0826
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Apoptosis

Olfactory transduction

APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	0.0789	0.241	0.222	0.0364	0.022

•				
Endolysosome	0.0789	0.241	0.222	0.03
Epigenetic				
Immune Response				

Lipid Metabolism

-0.156 0.0845 -0.0189 Mitochondrial Metabolism

Myelination

Metal Binding and Homeostasis Oxidative Stress **Proteostasis** 0.118

Synapse

Vasculature

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

-0.00525

-0.0954

-0.129

WT/WT

0.144 -0.00695 0.146

-0.0159

0.0356

WT/FC

-0.0113

-0.119

-0.106

FC/FC

-0.0599

-0.0644

WT/VS

-0.201

-0.0599-0.0824

-0.0163 -0.0608-0.0631

-0.2

-0.0837 VS/VS



		Tas	te transduct	ion	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	0.0199	0.278	0.0838	-0.069	-0.076
Lipid Metabolism	0.123	0.257	0.284	-0.0982	-0.128
Metal Binding and Homeostasis	0.0954	0.236	0.204	-0.203	-0.184
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse	0.0553	0.23	0.214	-0.119	-0.0875
Tau Homeostasis					
Vasculature	0.17	0.369	0.241	0.0936	0.0697
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Inflammatory mediator regulation of TRP channels				
Apoptosis	0.044	0.285	0.175	-0.11	-0.154
APP Metabolism					
Autophagy	0.00222	0.253	0.198	0.0388	-0.14
Cell Cycle	-0.0584	0.125	0.0476	-0.00243	-0.0384
DNA Repair					
Endolysosome	0.062	0.221	0.0728	-0.0674	-0.128
Epigenetic	0.0794	0.43	0.339	-0.0639	-0.0837
Immune Response	0.0962	0.227	0.175	-0.00887	-0.0611
Lipid Metabolism	0.15	0.28	0.263	-0.0592	-0.103
Metal Binding and Homeostasis	-0.048	0.0859	0.0422	-0.138	-0.136
Mitochondrial Metabolism	0.0963	0.242	0.209	-0.0954	-0.11
Myelination					
Oxidative Stress	0.0864	0.3	0.262	0.154	-0.119
Proteostasis	0.113	0.223	0.19	0.0622	-0.0796
RNA Spliceosome					
Structural Stabilization	0.0586	0.246	0.154	0.0607	-0.0495
Synapse	0.042	0.143	0.116	-0.0439	-0.0614
Tau Homeostasis					
Vasculature	0.0944	0.205	0.119	0.02	-0.00295
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Axon guidance

RNA Spliceosome					
Proteostasis	0.149	0.257	0.191	0.159	0.0723
Oxidative Stress	-0.0264	0.0272	-0.0786	0.343	0.0492
Myelination	0.0687	0.252	0.115	0.107	-0.096
Mitochondrial Metabolism	0.0345	0.14	0.0867	-0.014	-0.0771
Metal Binding and Homeostasis	0.0982	0.198	0.153	0.036	-0.0655
Lipid Metabolism	0.19	0.365	0.276	0.0635	0.0309
Immune Response	0.133	0.22	0.145	0.0995	0.025
Epigenetic	0.168	0.288	0.209	0.0832	0.0352
Endolysosome	0.0578	0.228	0.0952	0.133	-0.0576
DNA Repair	0.328	0.354	0.285	0.10	0.0086
Autophagy Cell Cycle	0.0898	0.179	0.169	0.171	-0.038 -0.0092
APP Metabolism					

Osteoclast differentiation

Apoptosis APP Metabolism Autophagy Cell Cycle DNA Repair Endolysosome	-0.0167 -0.0195	0.186 -0.0142 0.226	0.162	0.104	-0.0218 -0.0423
Autophagy Cell Cycle DNA Repair	-0.0195		0.0262	0.145	-0.0423
Cell Cycle DNA Repair	-0.0195		0.0262	0.145	-0.0423
DNA Repair		0.226			
·	0.004		0.172	0.116	-0.0081
Endolysosome	0.221	0.256	0.232	0.126	-0.000325
Litudiyadadiile	-0.061	-0.069	-0.0316	0.125	-0.019
Epigenetic	0.103	0.288	0.175	0.199	0.0908
Immune Response	0.0635	0.107	0.0936	0.13	0.0543
Lipid Metabolism	0.136	0.198	0.169	0.127	0.0526
letal Binding and Homeostasis	-0.093	0.045	-0.0102	-0.0611	-0.109
Mitochondrial Metabolism	0.0391	0.0524	0.102	0.0704	-0.0067
Myelination					
Oxidative Stress	-0.018	0.066	-0.0509	0.219	0.0291
Proteostasis	0.0557	0.137	0.144	0.203	-0.0185
RNA Spliceosome					
Structural Stabilization	0.0447	0.154	0.122	0.0863	0.0112
Synapse	0.0459	0.115	0.103	0.0891	-0.0329
Tau Homeostasis					
Vasculature	0.0507	0.273	0.201	0.0434	-0.111
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Longevity regulating pathway 0.322 0.117

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Apoptosis	0.164	0.322	0.26	0.117	0.0556
APP Metabolism					
Autophagy	0.195	0.362	0.325	0.101	0.0451
Cell Cycle	0.129	0.285	0.152	0.153	0.122
DNA Repair	0.257	0.362	0.338	0.0176	0.0708
Endolysosome	0.313	0.627	0.523	0.147	0.0238
Epigenetic	0.141	0.253	0.157	0.0632	0.0748
Immune Response	0.245	0.389	0.308	0.133	0.0989
Lipid Metabolism	0.23	0.399	0.363	0.062	0.0235
Metal Binding and Homeostasis	0.195	0.358	0.271	0.0591	0.00402
Mitochondrial Metabolism	0.164	0.291	0.283	0.0185	0.0221
Myelination					
Oxidative Stress	0.0826	0.264	0.259	-0.00492	-0.0741
Proteostasis	0.143	0.205	0.179	0.2	0.13
RNA Spliceosome					
Structural Stabilization	0.12	0.291	0.217	0.0634	-0.0256
Synapse	0.191	0.408	0.257	0.109	0.104
Tau Homeostasis					
Vasculature	0.204	0.317	0.262	0.149	0.13
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Longevity regulating pathway - multiple species

	Longe	vity regulatii	ng paniway	– munipie sį	Decies
Apoptosis	0.163	0.303	0.256	0.0935	0.0162
APP Metabolism					
Autophagy	0.0711	0.238	0.162	-0.00673	-0.142
Cell Cycle	0.301	0.405	0.315	0.291	0.184
DNA Repair					
Endolysosome	0.277	0.476	0.354	0.288	0.0778
Epigenetic	0.13	0.217	0.185	0.0713	0.00261
Immune Response	0.251	0.378	0.284	0.106	0.0237
Lipid Metabolism	0.157	0.316	0.274	-0.00528	-0.0902
Metal Binding and Homeostasis	0.125	0.299	0.2	-0.0308	-0.0955
Mitochondrial Metabolism	0.159	0.309	0.26	0.085	-0.0284
Myelination					
Oxidative Stress	0.028	0.0854	0.0825	0.0718	-0.0638
Proteostasis	0.142	0.231	0.162	0.178	0.0889
RNA Spliceosome					
Structural Stabilization	0.102	0.193	0.105	0.182	-0.0275
Synapse	0.175	0.345	0.204	0.0808	0.0278
Tau Homeostasis					
Vasculature	0.23	0.383	0.257	0.127	0.043
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Cir	cadian rhyth	nm	
Apoptosis		Oil	oudium myti		
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic	0.112	0.222	0.184	-0.0443	0.0398
Immune Response					
Lipid Metabolism	0.0514	0.0465	0.154	-0.0709	0.0093
Metal Binding and Homeostasis	0.0545	0.214	0.321	-0.164	-0.107
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.088	0.245	0.204	0.0396	-0.088
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Circadian entrainment

		Onca	ulan chilain	HIGHT	
Apoptosis	-0.0702	0.184	0.226	-0.24	-0.213
APP Metabolism					
Autophagy					
Cell Cycle	-0.103	0.121	-0.0471	0.02	-0.0565
DNA Repair					
Endolysosome	-0.00154	0.318	0.197	-0.0969	-0.197
Epigenetic	0.13	0.39	0.263	-0.0571	0.0017
Immune Response	-0.0592	0.308	0.143	-0.245	-0.223
Lipid Metabolism	0.081	0.354	0.248	-0.194	-0.14
Metal Binding and Homeostasis	0.0169	0.308	0.188	-0.165	-0.143
Mitochondrial Metabolism	-0.036	0.151	0.201	-0.385	-0.243
Myelination					
Oxidative Stress					
Proteostasis	0.0915	0.314	0.233	-0.11	-0.0372
RNA Spliceosome					
Structural Stabilization	0.0483	0.195	0.138	-0.0495	-0.0343
Synapse	0.0623	0.284	0.193	-0.185	-0.068
Tau Homeostasis					
Vasculature	0.052	0.343	0.134	-0.198	-0.0483
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Thermogenesis

-0.109 0.219 0.0329 -0.00141 -0.189 0.0421 0.0313 0.0407 -0.106	-0.00302 0.145 0.0688 0.0994 -0.225 0.0938 0.0256 0.0678 -0.126	-0.0151 -0.0312 0.11 0.13 0.285 0.0242 0.0661 0.0037 0.104 0.0948	-0.0675 -0.21 0.052 0.0345 -0.00607 0.0161 -0.0206 -0.0509 -0.0187
0.0329 -0.00141 -0.189 0.0421 0.0313	0.0688 0.0994 -0.225 0.0938 0.0256 0.0678 -0.126	0.11 0.13 0.285 0.0242 0.0661 0.0037	0.052 0.0345 -0.00607 0.0161 -0.0206 -0.0509 -0.0187
0.0329 -0.00141 -0.189 0.0421 0.0313	0.0688 0.0994 -0.225 0.0938 0.0256 0.0678 -0.126	0.11 0.13 0.285 0.0242 0.0661 0.0037	0.052 0.0345 -0.00607 0.0161 -0.0206 -0.0509 -0.0187
-0.00141 -0.189 0.0421 0.0313 0.0407	0.0994 -0.225 0.0938 0.0256 0.0678 -0.126	0.13 0.285 0.0242 0.0661 0.0037	0.0345 -0.00607 0.0161 -0.0206 -0.0509 -0.0187
-0.189 0.0421 0.0313 0.0407	-0.225 0.0938 0.0256 0.0678 -0.126	0.285 0.0242 0.0661 0.0037 0.104	-0.00607 0.0161 -0.0206 -0.0509 -0.0187
0.0421 0.0313 0.0407	0.0938 0.0256 0.0678 -0.126	0.0242 0.0661 0.0037 0.104	0.0161 -0.0206 -0.0509 -0.0187
0.0313 0.0407	0.0256 0.0678 -0.126	0.0661 0.0037 0.104	-0.0206 -0.0509 -0.0187
0.0407	0.0678 -0.126	0.0037	-0.0509 -0.0187
	-0.126	0.104	-0.0187
-0.106			
		0.0948	
-0.598	-0.587		-0.0513
-0.446	-0.381	-0.0386	-0.153
-0.0381	-0.0443	0.123	-0.00765
-0.0512	-0.000376	0.0383	-0.0571
	0.135	0.0583	0.054
0.165			
0.165		0.0745	0.021
0.165	0.13		
		0.0874 0.13	0.0874 0.13 0.0745

Pathways in cancer

Apoptosis	0.133	0.23	0.147	0.0674	-0.0127
APP Metabolism	0.0975	0.225	0.074	-0.028	-0.0132
Autophagy	0.0574	0.139	0.0113	0.118	-0.0225
Cell Cycle	0.0372	0.108	0.0519	0.0721	0.00662
DNA Repair	0.016	0.0522	0.0852	-0.0272	-0.0135
Endolysosome	0.138	0.156	0.0725	0.122	0.00517
Epigenetic	0.142	0.236	0.136	0.0683	0.0371
Immune Response	0.101	0.172	0.107	0.037	0.0062
Lipid Metabolism	0.184	0.247	0.179	0.0669	-0.00201
Metal Binding and Homeostasis	0.144	0.244	0.195	0.0547	-0.0112
Mitochondrial Metabolism	0.122	0.148	0.121	0.164	0.0236
Myelination	0.143	0.161	0.0834	0.192	0.0748
Oxidative Stress	0.0972	0.208	0.118	0.169	0.0255
Proteostasis	0.104	0.13	0.0727	0.117	0.0283
RNA Spliceosome					
Structural Stabilization	0.19	0.253	0.182	0.0987	0.0363
Synapse	0.169	0.235	0.143	0.0571	0.0234
Tau Homeostasis					
Vasculature	0.163	0.242	0.166	0.0881	0.0249
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Transcriptional misregulation in cancer

Apoptosis	0.0865	0.11	0.105	0.0934	0.0325
APP Metabolism	0.161	0.443	0.205	-0.0905	-0.00528
Autophagy	0.0769	0.0594	0.00682	0.0877	-0.0239
Cell Cycle	0.139	0.0987	0.0913	0.27	0.223
DNA Repair	0.0327	-0.0711	0.0382	0.159	0.172
Endolysosome	0.211	0.255	0.203	0.0939	0.0822
Epigenetic	0.165	0.199	0.126	0.0932	0.118
Immune Response	0.147	0.185	0.135	0.116	0.0814
Lipid Metabolism	0.12	0.183	0.0852	0.0766	0.035
Metal Binding and Homeostasis	0.117	0.142	0.138	-0.0107	0.0528
Mitochondrial Metabolism	0.215	0.246	-0.0191	0.464	0.305
Myelination					
Oxidative Stress	0.0988	0.161	0.0979	0.00974	-0.0331
Proteostasis	0.124	0.0384	0.0885	0.241	0.178
RNA Spliceosome					
Structural Stabilization	0.119	0.11	0.0838	0.096	0.0639
Synapse	0.17	0.205	0.161	-0.00167	0.0494
Tau Homeostasis					
Vasculature	0.147	0.184	0.206	0.151	0.119
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

MicroRNAs in cancer

Apoptosis	0.0832	0.257	0.131	-0.0335	-0.0184
APP Metabolism	0.0576	-0.0342	-0.0449	0.0845	0.149
Autophagy	0.166	0.278	0.254	0.0687	-0.00441
Cell Cycle	-0.00104	0.154	0.0938	-0.0272	-0.0113
DNA Repair	0.0802	0.227	0.124	-0.0156	-0.0259
Endolysosome	0.0672	0.147	0.133	0.0281	-0.0352
Epigenetic	0.118	0.272	0.163	-0.0353	0.00583
Immune Response	0.14	0.242	0.156	0.0354	0.0459
Lipid Metabolism	0.121	0.261	0.186	-0.0552	-0.0452
Metal Binding and Homeostasis	0.184	0.276	0.209	0.00807	0.0546
Mitochondrial Metabolism	0.12	0.229	0.0886	0.106	0.0492
Myelination	0.121	0.269	0.0628	0.019	-0.133
Oxidative Stress	0.0454	0.0706	-0.0107	0.129	0.0595
Proteostasis	0.128	0.259	0.14	0.0778	0.0274
RNA Spliceosome					
Structural Stabilization	0.0783	0.226	0.142	0.022	-0.00814
Synapse	0.163	0.285	0.205	0.0576	0.0368
Tau Homeostasis					
Vasculature	0.148	0.299	0.191	0.0287	0.0416
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Proteoglycans in cancer

		FIOLEC	ogiycans in c	Janicei	
Apoptosis	0.0784	0.204	0.0918	-0.00285	-0.0586
APP Metabolism	0.271	0.352	0.187	-0.0237	0.0865
Autophagy	0.0243	0.213	0.0992	0.0425	-0.123
Cell Cycle	0.0302	0.105	0.0131	0.0249	-0.00554
DNA Repair	-0.0517	0.059	-0.00212	-0.0344	-0.13
Endolysosome	0.0961	0.15	0.0401	0.0595	-0.0171
Epigenetic	0.0838	0.191	0.0842	-0.0034	-0.0128
Immune Response	0.0892	0.17	0.067	0.0346	0.00162
Lipid Metabolism	0.206	0.336	0.274	-0.019	-0.0276
Metal Binding and Homeostasis	0.141	0.211	0.149	0.0289	0.0276
Mitochondrial Metabolism	0.147	0.243	0.195	0.0754	0.00213
Myelination	0.212	0.285	0.214	0.0923	0.0127
Oxidative Stress	0.0203	0.091	0.0208	0.103	0.0105
Proteostasis	0.092	0.171	0.0559	0.0687	-0.0193
RNA Spliceosome					
Structural Stabilization	0.123	0.195	0.133	0.0644	-0.00823
Synapse	0.129	0.215	0.139	0.0176	-0.016
Tau Homeostasis					
Vasculature	0.138	0.232	0.14	0.0492	0.00704
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Ch	emical carci	nogenesis -	- DNA addu	cts
Apoptosis			- 9		
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response					
Lipid Metabolism	0.0601	-0.15	0.00803	0.227	0.0783
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.137	-0.0706	0.0107	0.253	0.238
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Chemical carcinogenesis – receptor activation

	Chem	nicai carcino	genesis – r	eceptor active	ation/
Apoptosis	0.167	0.308	0.217	0.119	0.0366
APP Metabolism					
Autophagy	0.224	0.282	0.177	0.372	0.2
Cell Cycle	0.118	0.238	0.148	0.13	0.0295
DNA Repair	0.105	0.335	0.14	-0.0105	-0.0991
Endolysosome	0.0803	0.218	0.11	0.159	-0.0032
Epigenetic	0.146	0.28	0.174	0.111	0.0658
Immune Response	0.197	0.34	0.208	0.121	0.0482
Lipid Metabolism	0.178	0.354	0.212	0.092	-0.000856
Metal Binding and Homeostasis	0.171	0.378	0.209	0.0483	-0.0246
Mitochondrial Metabolism	0.236	0.272	0.161	0.23	0.147
Myelination	0.41	0.44	0.276	0.713	0.435
Oxidative Stress	0.139	0.349	0.127	0.315	0.119
Proteostasis	0.0906	0.113	0.0696	0.201	0.1
RNA Spliceosome					
Structural Stabilization	0.144	0.233	0.2	0.166	0.0544
Synapse	0.184	0.389	0.197	0.126	0.0776
Tau Homeostasis					
Vasculature	0.0972	0.32	0.203	0.0658	0.00347
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Chemica	al carcinoge	nesis – read	tive oxygen	species
Apoptosis	0.0239	0.085	0.0714	0.132	-0.0461
APP Metabolism					
Autophagy	0.00242	0.146	0.0225	0.16	-0.0467
Cell Cycle	0.118	0.245	0.217	0.137	0.0371
DNA Repair	0.195	0.296	0.258	0.0364	-0.0111
Endolysosome	-0.028	-0.0931	-0.157	0.221	0.0375
Epigenetic	0.124	0.322	0.26	0.0841	0.00432
Immune Response	0.0795	0.176	0.116	0.139	0.016
Lipid Metabolism	0.0274	0.0472	0.0347	0.193	0.0172
Metal Binding and Homeostasis	-0.0961	-0.202	-0.229	0.238	0.00278
Mitochondrial Metabolism	-0.365	-0.569	-0.559	0.13	-0.0528
Myelination					
Oxidative Stress	-0.151	-0.121	-0.188	0.124	-0.105
Proteostasis	-0.032	-0.0503	-0.0778	0.261	0.065
RNA Spliceosome					
Structural Stabilization	0.12	0.182	0.131	0.193	0.0944
Synapse	0.0207	0.0776	0.00632	0.161	-0.0195
Tau Homeostasis					

0.203

WT/FC

0.19

FC/FC

0.089

WT/VS

-0.0488

VS/VS

Vasculature

0.0505

WT/WT

Viral carcinogenesis

			3		
Apoptosis	0.0192	0.0639	0.0178	0.1	0.0377
APP Metabolism	0.00831	-0.0348	-0.122	0.123	0.065
Autophagy	0.000557	0.0519	-0.0264	0.2	0.0053
Cell Cycle	-0.111	-0.0151	-0.0732	0.0843	-0.0393
DNA Repair	-0.0647	-0.0234	-0.0197	0.000417	-0.0454
Endolysosome	0.0071	0.0176	0.0256	0.216	0.0796
Epigenetic	-0.00623	0.108	0.00956	0.0874	0.0197
Immune Response	0.0438	0.0668	0.0104	0.175	0.119
Lipid Metabolism	0.153	0.189	0.165	0.204	0.121
Metal Binding and Homeostasis	0.0445	0.124	0.0167	0.016	0.0219
Mitochondrial Metabolism	0.0127	-0.0791	-0.0958	0.224	0.106
Myelination	0.0212	-0.0261	-0.126	0.327	0.0684
Oxidative Stress	-0.0887	-0.0847	-0.1	0.242	0.0568
Proteostasis	0.00795	0.039	0.0105	0.178	0.0463
RNA Spliceosome					
Structural Stabilization	-0.0895	-0.0644	-0.0903	0.0671	-0.0205
Synapse	-0.0537	-0.00972	-0.0835	0.138	0.0352
Tau Homeostasis					
Vasculature	0.0532	0.134	0.0757	0.161	0.0563
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Central carbon metabolism in cancer

Apoptosis	0.129	0.207	0.211	0.0585	-0.0875
APP Metabolism					
Autophagy	0.116	0.296	0.228	0.184	-0.0712
Cell Cycle	0.02	0.0674	0.0681	0.291	0.0362
DNA Repair					
Endolysosome	0.0844	0.195	0.188	0.0905	0.00895
Epigenetic	0.0143	0.0288	0.0189	0.172	-0.0738
Immune Response	0.118	0.208	0.14	0.0907	-0.0386
Lipid Metabolism	0.153	0.267	0.248	0.14	0.0189
Metal Binding and Homeostasis	0.0309	-0.0864	-0.0877	0.352	0.116
Mitochondrial Metabolism	-0.0832	-0.0166	-0.073	0.159	-0.0218
Myelination					
Oxidative Stress	-0.125	0.0544	-0.0547	0.0682	-0.115
Proteostasis	0.147	0.207	0.151	0.244	0.0768
RNA Spliceosome					
Structural Stabilization	0.128	0.25	0.138	0.169	-0.00426
Synapse	0.193	0.281	0.245	0.124	0.0233
Tau Homeostasis					
Vasculature	0.175	0.298	0.265	0.0869	-0.0436
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Choline metabolism in cancer

Apoptosis	0.0577	0.262	0.292	-0.0931	-0.168
APP Metabolism					
Autophagy	0.0823	0.158	0.191	0.21	0.0877
Cell Cycle	0.025	0.0864	0.14	0.109	0.142
DNA Repair					
Endolysosome	0.000732	-0.0167	0.0292	0.0304	0.0142
Epigenetic	0.0436	0.278	0.18	-0.096	-0.136
Immune Response	0.0835	0.193	0.159	0.0402	-0.00187
Lipid Metabolism	0.13	0.213	0.238	-0.0223	-0.00484
Metal Binding and Homeostasis	0.0448	0.121	0.212	-0.179	-0.137
Mitochondrial Metabolism	0.0566	0.181	0.202	0.0466	-0.125
Myelination					
Oxidative Stress	0.0828	0.3	0.203	0.097	-0.0912
Proteostasis	0.0878	0.161	0.139	0.214	0.0815
RNA Spliceosome					
Structural Stabilization	0.0887	0.185	0.16	0.0377	0.0462
Synapse	0.089	0.203	0.181	-0.0248	-0.0457
Tau Homeostasis					
Vasculature	0.0709	0.337	0.195	-0.0973	-0.165
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

PD_I 1 expression and PD_1 checkpoint nathway in cancer.

ŀ	PD-L1 expression and PD-1 checkpoint pathway in cance					
Apoptosis	0.125	0.282	0.163	0.116	0.0181	
APP Metabolism						
Autophagy	0.149	0.32	0.244	0.237	0.00838	
Cell Cycle	0.0144	0.0814	0.106	0.0423	0.00342	
DNA Repair	0.197	0.37	0.267	-0.0939	-0.133	
Endolysosome	0.0399	0.22	0.13	0.132	-0.0429	
Epigenetic	0.136	0.285	0.164	0.146	0.0118	
Immune Response	0.0856	0.161	0.0875	0.151	0.0748	
Lipid Metabolism	0.173	0.305	0.211	0.155	0.079	
Metal Binding and Homeostasis	-0.0277	0.0795	0.0299	-0.0316	-0.1	
Mitochondrial Metabolism	0.103	0.138	0.168	0.118	0.0646	
Myelination						
Oxidative Stress	0.112	0.404	0.271	0.273	0.000899	
Proteostasis	0.00372	0.148	0.0455	0.0848	-0.021	
RNA Spliceosome						
Structural Stabilization	0.0905	0.211	0.159	0.0697	0.0109	
Synapse	0.0413	0.181	0.032	0.132	-0.0416	
Tau Homeostasis						
Vasculature	0.13	0.366	0.242	0.0517	-0.075	
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

Colorectal cancer

Apoptosis	0.0686	0.211	0.127	0.0745	-0.0139
APP Metabolism					
Autophagy	0.117	0.185	0.117	0.266	0.0897
Cell Cycle	-0.0569	0.0252	-0.0171	0.0909	0.0153
DNA Repair	-0.0722	0.023	0.0465	-0.0179	-0.0151
Endolysosome	-0.037	0.0145	-0.0814	0.201	-0.0364
Epigenetic	0.0744	0.337	0.144	0.0829	-0.0668
Immune Response	0.054	0.193	0.129	0.0524	-0.00902
Lipid Metabolism	0.119	0.288	0.231	0.0511	-0.0277
Metal Binding and Homeostasis	0.144	0.156	0.118	0.0723	0.0628
Mitochondrial Metabolism	0.0793	0.139	0.186	0.154	0.0338
Myelination	0.275	0.356	0.296	0.433	0.255
Oxidative Stress	0.0222	0.118	0.0483	0.319	0.116
Proteostasis	0.0238	0.0648	0.0109	0.16	0.0684
RNA Spliceosome					
Structural Stabilization	0.101	0.216	0.158	0.0848	0.00755
Synapse	0.063	0.227	0.113	0.0336	0.00367
Tau Homeostasis					
Vasculature	0.122	0.301	0.202	0.173	-0.00216
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Pancreatic cancer

Apoptosis	0.148	0.243	0.195	0.126	0.0765
APP Metabolism					
Autophagy	0.112	0.121	0.0708	0.443	0.0678
Cell Cycle	0.0393	0.024	0.0108	0.225	0.131
DNA Repair	-0.0114	0.0404	0.0758	0.114	-0.00112
Endolysosome	0.00241	0.079	-0.0107	0.157	-0.0793
Epigenetic	0.148	0.292	0.229	0.0345	0.0184
Immune Response	0.148	0.244	0.199	0.121	0.0703
Lipid Metabolism	0.219	0.33	0.286	0.125	0.0854
Metal Binding and Homeostasis	0.135	0.175	0.2	7.73e-05	-0.0559
Mitochondrial Metabolism	0.115	0.109	0.172	0.239	0.084
Myelination					
Oxidative Stress	0.0861	0.157	0.108	0.329	0.112
Proteostasis	0.0474	0.0319	0.0462	0.207	0.0556
RNA Spliceosome					
Structural Stabilization	0.0969	0.145	0.152	0.116	0.0419
Synapse	0.151	0.212	0.163	0.17	0.0589
Tau Homeostasis					
Vasculature	0.119	0.227	0.171	0.136	0.0492
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Hepatocellular carcinoma

Apoptosis	0.0765	0.21	0.107	0.0663	-0.00587
APP Metabolism					
Autophagy	0.0414	0.277	0.131	0.311	0.0155
Cell Cycle	0.0452	0.164	0.0832	0.0743	0.0446
DNA Repair	-0.00625	0.0429	0.0283	0.115	0.0158
Endolysosome	0.109	0.186	0.0704	0.134	0.00957
Epigenetic	0.064	0.211	0.0799	0.0372	-0.00419
Immune Response	0.0805	0.181	0.0893	0.106	0.0282
Lipid Metabolism	0.172	0.274	0.223	0.12	0.0507
Metal Binding and Homeostasis	0.0667	0.138	0.163	0.0223	-0.0399
Mitochondrial Metabolism	0.0823	0.133	0.114	0.257	0.0559
Myelination	0.244	0.356	0.335	0.312	0.142
Oxidative Stress	0.0171	0.0964	0.00221	0.271	0.0189
Proteostasis	0.0538	0.143	0.0454	0.139	0.0155
RNA Spliceosome					
Structural Stabilization	0.101	0.216	0.143	0.0735	0.00149
Synapse	0.105	0.218	0.131	0.0554	0.0165
Tau Homeostasis					
Vasculature	0.0938	0.275	0.114	0.0919	-0.000639
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Gastric cancer

-0.02

0.0251

-0.0132

-0.0185

-0.025

0.0245

-0.00804

-0.0514

0.109

0.124

0.148

0.104

-0.0228

-0.0429

-0.00975

-0.0258

		_		
Apoptosis	0.117	0.266	0.108	0.0376
APP Metabolism				
Autophagy	0.226	0.493	0.33	0.185
Cell Cycle	0.0142	0.15	0.0455	0.0311
DNA Repair	-0.0298	0.058	-0.00603	0.0576
Endolysosome	0.0985	0.187	0.0656	0.0207
Epigenetic	0.134	0.268	0.0887	0.109
Immune Response	0.109	0.225	0.0667	0.0343
Lipid Metabolism	0.195	0.311	0.206	0.0288
Metal Binding and Homeostasis	0.169	0.168	0.0699	0.154
Mitochondrial Metabolism	0.212	0.277	0.186	0.209
Myelination	0.214	0.266	0.175	0.293
Oxidative Stress	0.12	0.22	0.0359	0.228
Proteostasis	0.0801	0.178	0.0554	0.0376
RNA Spliceosome				
Structural Stabilization	0.181	0.301	0.195	0.0433
Synapse	0.169	0.309	0.134	-0.008
Tau Homeostasis				
Vasculature	0.169	0.331	0.178	0.112
	WT/WT	WT/FC	FC/FC	WT/VS

			Glioma		
Apoptosis	0.044	0.189	0.128	0.0634	0.0463
APP Metabolism					
Autophagy	-0.0216	0.205	0.152	0.232	-0.0412
Cell Cycle	-0.0532	0.0319	-0.015	0.101	0.122
DNA Repair	-0.0949	-0.0536	-0.0481	0.0812	-0.00163
Endolysosome	0.0722	0.19	0.0931	0.129	0.0752
Epigenetic	0.0112	0.156	0.0133	0.0554	0.0483
Immune Response	0.0845	0.245	0.134	0.0606	0.0498
Lipid Metabolism	0.208	0.303	0.231	0.156	0.146
Metal Binding and Homeostasis	-0.0615	-0.0751	0.0228	0.0124	0.0561
Mitochondrial Metabolism	0.0551	0.188	0.103	0.175	0.0727
Myelination	0.00214	0.137	0.153	0.221	0.0648
Oxidative Stress	0.102	0.0786	-0.0353	0.38	0.266
Proteostasis	0.0292	0.0529	0.00647	0.207	0.143
RNA Spliceosome					
Structural Stabilization	-0.0107	0.128	0.0417	0.0726	0.0234
Synapse	0.0325	0.153	0.124	0.0416	0.0244
Tau Homeostasis					
Vasculature	0.0466	0.195	0.0803	0.0547	0.0409
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

T	hyroid	cancer

			•		
Apoptosis	-0.00313	0.14	-0.0241	0.266	0.0433
APP Metabolism					
Autophagy					
Cell Cycle	-0.135	-0.0111	-0.122	0.226	0.0472
DNA Repair	-0.184	-0.176	-0.176	0.275	0.0481
Endolysosome					
Epigenetic	-0.0426	0.18	-0.136	0.215	-0.0736
Immune Response	-0.0283	0.0885	-0.0796	0.283	0.0796
Lipid Metabolism	0.235	0.266	0.131	0.318	0.0272
Metal Binding and Homeostasis	0.178	0.155	0.0548	0.27	0.0941
Mitochondrial Metabolism	0.0568	0.179	0.0745	0.358	0.171
Myelination					
Oxidative Stress					
Proteostasis	-0.109	0.0554	-0.135	0.174	-0.0227
RNA Spliceosome					
Structural Stabilization	-0.0527	0.216	-0.0115	0.00978	-0.211
Synapse	0.0664	0.151	0.0759	0.212	0.0587
Tau Homeostasis					
Vasculature	0.00063	0.159	-0.0598	0.332	0.112
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Acute myeloid leukemia

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Apoptosis	0.187	0.306	0.252	0.153	0.0618
APP Metabolism					
Autophagy	0.215	0.228	0.193	0.267	0.0949
Cell Cycle	0.0947	0.162	0.13	0.311	0.146
DNA Repair	-0.0312	0.261	0.125	0.00745	-0.153
Endolysosome	0.0141	0.104	0.148	0.191	0.03
Epigenetic	0.214	0.285	0.194	0.197	0.129
Immune Response	0.212	0.275	0.22	0.18	0.0947
Lipid Metabolism	0.332	0.371	0.365	0.249	0.197
Metal Binding and Homeostasis	0.225	0.168	0.269	0.139	0.136
Mitochondrial Metabolism	0.245	0.226	0.238	0.315	0.16
Myelination					
Oxidative Stress					
Proteostasis	0.128	0.135	0.108	0.293	0.185
RNA Spliceosome					
Structural Stabilization	0.195	0.302	0.268	0.16	0.0713
Synapse	0.265	0.324	0.211	0.229	0.132
Tau Homeostasis					
Vasculature	0.248	0.419	0.361	0.141	-0.0169
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			•		
Apoptosis	0.136	0.208	0.161	0.181	0.102
APP Metabolism					
Autophagy	0.287	0.324	0.346	0.432	0.166
Cell Cycle	0.0839	0.15	0.102	0.232	0.149
DNA Repair	0.0462	0.0623	0.0523	0.201	0.0641
Endolysosome	0.144	0.177	0.132	0.311	0.144
Epigenetic	0.124	0.179	0.0806	0.147	0.102
Immune Response	0.226	0.299	0.187	0.216	0.133
Lipid Metabolism	0.303	0.373	0.291	0.247	0.16
Metal Binding and Homeostasis	0.149	0.152	0.134	0.0573	0.0564
Mitochondrial Metabolism	0.2	0.156	0.187	0.387	0.228
Myelination	0.0477	0.0215	0.0402	0.473	0.158
Oxidative Stress	0.137	0.124	0.0122	0.377	0.255
Proteostasis	0.115	0.126	0.0774	0.32	0.15
RNA Spliceosome					
Structural Stabilization	0.178	0.294	0.228	0.138	0.0701
Synapse	0.233	0.307	0.239	0.2	0.14
Tau Homeostasis					
Vasculature	0.199	0.301	0.232	0.136	0.0714
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Basal cell carcinoma

		Basa	ai cell carcin	ioma	
Apoptosis	0.132	0.265	0.055	0.112	0.0825
APP Metabolism					
Autophagy					
Cell Cycle	0.0905	0.103	0.0572	0.252	0.206
DNA Repair	-0.0921	-0.186	-0.0716	0.212	0.115
Endolysosome	0.18	0.256	0.104	0.0954	0.0399
Epigenetic	0.191	0.32	0.0621	0.118	0.127
Immune Response	0.101	0.176	-0.0184	0.0846	0.0644
Lipid Metabolism	0.239	0.34	0.151	0.172	0.14
Metal Binding and Homeostasis	0.133	0.239	0.13	0.105	0.117
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.138	0.249	0.0645	0.0578	0.0569
RNA Spliceosome					
Structural Stabilization	0.169	0.266	0.129	0.0455	-0.0317
Synapse	0.173	0.296	0.116	0.0253	0.0767
Tau Homeostasis					
Vasculature	0.162	0.309	0.0232	0.181	0.193
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			Melanoma
Apoptosis	0.0853	0.196	0.123

0.0762

0.157

0.011

0.0612

-0.0025

0.106

0.121

0.206

0.16

0.119

0.0857

-0.0114

0.0704

0.0938

VS/VS

			morarionia		
Apoptosis	0.0853	0.196	0.123	0.167	
APP Metabolism					
Autophagy					
Cell Cycle	0.0257	0.0734	0.049	0.136	
DNA Repair	-0.0836	-0.0617	-0.0506	0.142	
Endolysosome	0.0552	0.103	0.0683	0.0967	
Epigenetic	0.0523	0.166	0.059	0.069	
Immune Response	0.126	0.205	0.117	0.173	
Lipid Metabolism	0.227	0.206	0.248	0.178	
Metal Binding and Homeostasis	0.158	-0.0557	0.11	0.183	
Mitochondrial Metabolism	0.12	0.153	0.158	0.262	
Myelination					
Oxidative Stress	0.0691	0.146	0.0317	0.204	

0.00777

0.0553

0.157

0.129

WT/WT

-0.0135

0.177

0.235

0.153

WT/FC

-0.0189

0.114

0.18

0.135

FC/FC

0.141

0.0879

0.0722

0.209

WT/VS

Proteostasis

Synapse

Vasculature

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

Renal cell carcinoma

0.0218

-0.0602

0.177

0.0903

0.0749

0.0888

0.0868

0.194

0.253

0.0304

0.112

0.178

0.105

0.0318

0.0823

Apoptosis	0.11	0.268	0.2	0.114
APP Metabolism				
Autophagy	0.0642	0.221	0.163	0.176
Cell Cycle	0.123	0.238	0.144	0.309
DNA Repair	0.113	0.055	0.043	0.232
Endolysosome	-0.0808	0.0265	-0.0807	0.365
Epigenetic	0.149	0.221	0.188	0.083
Immune Response	0.179	0.274	0.192	0.145
Lipid Metabolism	0.242	0.288	0.314	0.369
Metal Binding and Homeostasis	0.271	0.161	0.212	0.273
Mitochondrial Metabolism	0.089	0.147	0.174	0.133
Myelination				
Oxidative Stress	0.0832	0.288	0.15	0.249
Proteostasis	0.0501	0.0847	0.0299	0.348
RNA Spliceosome				
Structural Stabilization	0.116	0.205	0.132	0.245
Synapse	0.0878	0.284	0.142	0.169
Tau Homeostasis				
Vasculature	0.181	0.328	0.223	0.213
	WT/WT	WT/FC	FC/FC	WT/VS

В	ladder	canc	er

Apoptosis	0.0635	0.172	0.00818	0.0643	0.0243
APP Metabolism					
Autophagy					
Cell Cycle	-0.00411	0.000534	-0.109	0.135	0.131
DNA Repair	-0.0325	0.0754	-0.0971	0.0892	0.0196
Endolysosome	-0.00835	-0.0132	-0.121	0.0215	0.00426
Epigenetic	-0.033	0.118	-0.00749	-0.0228	-0.0234
Immune Response	0.0941	0.16	0.00705	0.22	0.135
Lipid Metabolism	0.154	0.206	0.0754	0.0218	0.0282
Metal Binding and Homeostasis	0.13	-0.0677	-0.0462	0.198	0.0966
Mitochondrial Metabolism	0.106	0.103	0.0704	0.354	0.135
Myelination					
Oxidative Stress	0.112	0.29	0.0249	0.221	0.0949
Proteostasis	0.0502	0.0996	-0.0865	0.134	0.0405
RNA Spliceosome					
Structural Stabilization	0.0834	0.164	0.00994	0.143	0.0972
Synapse	0.186	0.249	0.182	0.091	0.0911
Tau Homeostasis					
Vasculature	0.105	0.0877	-0.0235	0.127	0.159
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

7	OS	tate	car	icer	

				_			
Apoptosis	0.176	0.303	0.229	0.0886	0.0438		
APP Metabolism							
Autophagy	0.275	0.414	0.337	0.199	0.101		
Cell Cycle	0.0995	0.245	0.141	0.111	0.0623		
DNA Repair	0.112	0.277	0.159	-0.0469	0.0127		
Endolysosome	0.102	0.115	0.0852	0.14	0.127		
Epigenetic	0.135	0.219	0.0688	0.0854	0.0741		
Immune Response	0.199	0.316	0.193	0.166	0.0927		
Lipid Metabolism	0.224	0.316	0.271	0.127	0.113		
Metal Binding and Homeostasis	0.266	0.323	0.296	0.121	0.0769		
Mitochondrial Metabolism	0.236	0.294	0.292	0.208	0.158		
Myelination	0.278	0.4	0.266	0.346	0.242		
Oxidative Stress	0.211	0.188	0.131	0.32	0.248		
Proteostasis	0.142	0.133	0.1	0.183	0.134		
RNA Spliceosome							
Structural Stabilization	0.161	0.256	0.191	0.178	0.113		
Synapse	0.252	0.397	0.288	0.147	0.069		
Tau Homeostasis							
Vasculature	0.178	0.305	0.188	0.106	0.0345		
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

Endometrial cancer

Apoptosis	0.0357	0.135	0.079	0.109	0.00181
APP Metabolism					
Autophagy					
Cell Cycle	-0.0942	-0.0193	-0.0467	0.187	0.103
DNA Repair	-0.104	-0.0295	-0.039	0.0746	0.0189
Endolysosome	-0.0236	-0.0187	-0.0296	0.0854	-0.00276
Epigenetic	0.00277	0.189	0.0343	0.118	-0.0303
Immune Response	0.0803	0.142	0.0921	0.183	0.103
Lipid Metabolism	0.18	0.218	0.286	0.0798	0.0686
Metal Binding and Homeostasis	0.136	-0.039	0.0577	0.255	0.161
Mitochondrial Metabolism	0.106	0.171	0.267	0.173	0.098
Myelination	0.114	0.0441	0.0641	0.419	0.136
Oxidative Stress	0.0591	0.0859	0.07	0.445	0.2
Proteostasis	0.0321	0.0727	0.0457	0.112	0.0775
RNA Spliceosome					
Structural Stabilization	0.0948	0.225	0.167	0.0568	-0.0793
Synapse	0.0475	0.21	0.12	0.00194	-0.0487
Tau Homeostasis					
Vasculature	0.142	0.346	0.221	0.14	-0.0219
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Breast cancer

Apoptosis	0.152	0.324	0.157	0.05	0.00209
APP Metabolism					
Autophagy					
Cell Cycle	0.0452	0.204	0.0916	0.102	0.0695
DNA Repair	-0.0753	0.047	0.00346	0.042	-0.077
Endolysosome	0.123	0.213	0.0642	0.0939	0.0131
Epigenetic	0.113	0.317	0.11	0.0393	-0.00165
Immune Response	0.127	0.26	0.0881	0.0743	0.0463
Lipid Metabolism	0.212	0.357	0.24	0.0673	0.0213
Metal Binding and Homeostasis	0.172	0.29	0.249	0.13	0.0438
Mitochondrial Metabolism	0.188	0.301	0.192	0.179	0.0996
Myelination	0.192	0.282	0.208	0.195	0.145
Oxidative Stress	0.0791	0.25	0.0658	0.317	0.0353
Proteostasis	0.089	0.209	0.0732	0.087	0.0147
RNA Spliceosome					
Structural Stabilization	0.15	0.291	0.168	0.05	0.00317
Synapse	0.224	0.326	0.208	0.0323	0.051
Tau Homeostasis					
Vasculature	0.162	0.331	0.18	0.129	0.0156
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Small cell lung cancer

			-		
Apoptosis	0.117	0.224	0.199	0.183	0.11
APP Metabolism					
Autophagy	0.207	0.274	0.292	0.199	0.0501
Cell Cycle	-0.00734	-0.00297	0.0405	0.196	0.0923
DNA Repair	0.0474	0.0931	0.0777	0.127	0.085
Endolysosome					
Epigenetic	0.121	0.211	0.102	0.203	0.151
Immune Response	0.206	0.235	0.233	0.18	0.154
Lipid Metabolism	0.263	0.302	0.287	0.194	0.149
Metal Binding and Homeostasis	0.148	0.141	0.136	0.194	0.136
Mitochondrial Metabolism	0.28	0.349	0.339	0.445	0.338
Myelination					
Oxidative Stress	0.179	0.137	0.0162	0.517	0.376
Proteostasis	0.2	0.214	0.238	0.222	0.169
RNA Spliceosome					
Structural Stabilization	0.24	0.293	0.319	0.0455	0.0977
Synapse	0.345	0.347	0.328	0.166	0.176
Tau Homeostasis					
Vasculature	0.222	0.356	0.318	0.104	0.0726
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Non-small cell lung cancer

Apoptosis	0.0568	0.2	0.151	0.0377	0.00325
APP Metabolism					
Autophagy	0.0872	0.266	0.161	0.254	-0.0173
Cell Cycle	-0.0417	0.0541	-0.00074	0.099	0.102
DNA Repair	-0.0877	-0.105	-0.031	0.136	0.0654
Endolysosome	0.124	0.138	0.104	0.196	0.0736
Epigenetic	0.0314	0.204	0.0877	0.0543	-0.0142
Immune Response	0.136	0.217	0.177	0.103	0.0507
Lipid Metabolism	0.266	0.309	0.327	0.175	0.157
letal Binding and Homeostasis	0.11	-0.0181	0.0536	0.196	0.14
Mitochondrial Metabolism	0.127	0.25	0.209	0.179	0.0632
Myelination					
Oxidative Stress	0.0118	0.125	0.0151	0.34	0.114
Proteostasis	-0.0198	0.0309	0.0267	0.144	0.0801
RNA Spliceosome					
Structural Stabilization	0.072	0.215	0.166	0.0204	-0.0333
Synapse	0.132	0.34	0.194	0.0645	-0.0296
Tau Homeostasis					
Vasculature	0.0668	0.239	0.172	-0.017	-0.0478
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Human T-cell leukemia virus 1 infection

Apoptosis	0.0869	0.114	0.0777	0.0934	0.0336
APP Metabolism					
Autophagy	0.0327	-0.0472	-0.0187	0.259	-0.0208
Cell Cycle	-0.082	-0.0332	-0.0647	0.0945	-0.0357
DNA Repair	0.0791	0.114	0.0646	0.0337	-0.0145
Endolysosome	0.0225	0.0415	-0.0331	0.133	-0.00648
Epigenetic	0.113	0.185	0.181	0.0993	0.0724
Immune Response	0.116	0.111	0.0979	0.125	0.0654
Lipid Metabolism	0.153	0.131	0.151	0.162	0.0505
Metal Binding and Homeostasis	0.0578	0.205	0.0846	-0.0103	-0.0674
Mitochondrial Metabolism	0.0558	-0.00318	0.00917	0.212	0.0338
Myelination	0.0933	0.0517	0.0903	0.492	0.159
Oxidative Stress	0.0411	0.222	0.164	0.266	-0.0224
Proteostasis	0.0309	0.0201	0.00143	0.194	0.0298
RNA Spliceosome					
Structural Stabilization	0.0617	0.0977	0.0598	0.154	0.0648
Synapse	0.0799	0.139	0.0938	0.157	0.0138
Tau Homeostasis					
Vasculature	0.12	0.215	0.198	0.104	0.0159
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Human immunodeficiency virus 1 infection

Apoptosis	0.0662	0.151	0.125	0.0938	-0.00666			
APP Metabolism								
Autophagy	0.0495	0.0639	0.109	0.172	-0.0322			
Cell Cycle	-0.044	0.0715	0.0755	0.0812	-0.0722			
DNA Repair	0.0707	0.0897	0.138	0.0147	-0.035			
Endolysosome	-0.0276	-0.0392	0.00826	0.255	-0.0306			
Epigenetic	0.0891	0.21	0.18	0.11	-0.00467			
Immune Response	0.0693	0.0624	0.0592	0.132	0.0539			
Lipid Metabolism	0.15	0.164	0.177	0.17	0.113			
Metal Binding and Homeostasis	0.0351	-0.011	0.0352	0.103	0.0283			
Mitochondrial Metabolism	0.0971	0.054	0.139	0.134	0.0431			
Myelination	0.0877	0.113	0.108	0.29	0.166			
Oxidative Stress	0.0538	0.168	0.157	0.273	0.0848			
Proteostasis	0.0341	0.0618	0.0604	0.173	0.0317			
RNA Spliceosome								
Structural Stabilization	0.0609	0.132	0.109	0.172	0.0474			
Synapse	0.0175	0.126	0.07	0.124	-0.0131			
Tau Homeostasis								
Vasculature	0.0582	0.172	0.139	0.141	0.0608			
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS			

Apoptosis	0.121	0.209	0.153	0.101	0.0249
APP Metabolism					
Autophagy	0.123	0.273	0.194	0.225	0.0259
Cell Cycle	-0.0363	0.147	0.0483	0.0162	-0.0654
DNA Repair	0.0463	0.0678	0.03	0.0197	0.0268
Endolysosome	0.131	0.177	0.104	0.257	0.0953
Epigenetic	0.113	0.226	0.166	0.0863	0.0386
Immune Response	0.138	0.213	0.169	0.111	0.0747
Lipid Metabolism	0.218	0.268	0.241	0.164	0.142
Metal Binding and Homeostasis	0.192	0.292	0.229	0.0608	0.02
Mitochondrial Metabolism	0.149	0.134	0.178	0.157	0.136
Myelination	0.297	0.348	0.201	0.534	0.327
Oxidative Stress	0.0782	0.263	0.142	0.289	0.118
Proteostasis	0.0723	0.12	0.0786	0.171	0.0777
RNA Spliceosome					
Structural Stabilization	0.0988	0.194	0.179	0.0656	0.0236
Synapse	0.0532	0.181	0.118	0.0938	-0.0166
Tau Homeostasis					
Vasculature	0.147	0.266	0.214	0.101	0.0367
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Hepatitis C				
Apoptosis	0.066	0.149	0.0625	0.138		
APP Metabolism						
Autophagy	0.0142	0.129	0.0871	0.159		
Cell Cycle	-0.159	-0.0967	-0.207	0.0871		
DNA Repair	-0.00793	0.0233	-0.083	0.125		
Endolysosome	0.0598	0.0639	0.0704	0.155		
Epigenetic	0.0392	0.165	0.041	0.0852		
Immune Response	0.0714	0.077	0.0473	0.148		
Lipid Metabolism	0.189	0.13	0.153	0.267		
Metal Binding and Homeostasis	0.0901	0.101	0.0699	0.156		
Mitochondrial Metabolism	0.0986	0.105	0.114	0.275		
Myelination	0.24	0.313	0.215	0.545		
Oxidative Stress	-0.0347	0.0524	-0.0314	0.258		
Proteostasis	0.00396	0.0609	-0.00502	0.114		
RNA Spliceosome						
Structural Stabilization	0.0235	0.0828	-0.0109	0.132		
Synapse	-0.0345	-0.0183	-0.0608	0.132		
Tau Homeostasis						
Vasculature	0.0811	0.222	0.14	0.0926		
	WT/WT	WT/FC	FC/FC	WT/VS		

0.0254

-0.0372

-0.0233

0.0733

0.064

0.0149

0.0736

0.193

0.0619

0.168

0.242

0.11

-0.0316

0.0216

-0.00956

-0.0104

Coronavirus disease – COVID-19

Apoptosis	0.0601	0.146	0.056	0.0709	-0.058
APP Metabolism					
Autophagy	0.0652	0.159	0.119	0.127	-0.103
Cell Cycle	-0.195	-0.112	-0.125	0.000404	-0.208
DNA Repair	0.0499	0.00725	0.0776	0.0548	-0.0657
Endolysosome	0.0611	0.142	0.04	0.0823	-0.093
Epigenetic	0.0745	0.237	0.146	0.0522	-0.0402
Immune Response	0.0134	-0.0116	-0.0559	0.0773	0.00964
Lipid Metabolism	0.157	0.145	0.153	0.0995	0.0335
Metal Binding and Homeostasis	0.102	0.133	0.0615	-0.0813	-0.0912
Mitochondrial Metabolism	0.129	0.143	0.134	0.044	0.055
Myelination					
Oxidative Stress	0.0545	0.324	0.219	0.115	-0.073
Proteostasis	-0.284	-0.429	-0.547	0.189	0.00737
RNA Spliceosome					
Structural Stabilization	-0.302	-0.469	-0.535	0.161	0.0136
Synapse	-0.247	-0.395	-0.44	0.179	0.0244
Tau Homeostasis					
Vasculature	0.0756	0.146	0.115	-0.0127	-0.0662
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			Influenza A	
3	0.0763	0.118	0.0567	

Apoptosis	0.0763	0.118	0.0567	0.112	0.00321
APP Metabolism					
Autophagy	-0.029	0.0562	0.0362	0.227	-0.0265
Cell Cycle	-0.102	-0.0283	-0.0369	0.0478	0.032
DNA Repair	0.0239	0.0351	0.118	0.0662	0.121
Endolysosome	0.102	0.228	0.192	0.223	0.0579
Epigenetic	0.0936	0.237	0.137	0.0637	0.00138
Immune Response	0.0861	0.0979	0.0749	0.116	0.0559
Lipid Metabolism	0.095	0.0159	0.0761	0.183	0.104
Metal Binding and Homeostasis	0.0981	0.2	0.194	-0.0606	-0.0562
Mitochondrial Metabolism	0.0633	0.0743	0.0898	0.183	0.121
Myelination					
Oxidative Stress	-0.0728	0.0322	-0.0535	0.198	0.0754
Proteostasis	0.0644	0.137	0.0877	0.146	0.0316
RNA Spliceosome					
Structural Stabilization	0.066	0.096	0.0607	0.1	0.0132
Synapse	0.0204	0.0635	0.00822	0.237	0.0323
Tau Homeostasis					
Vasculature	-0.0248	0.0614	0.111	0.0916	-0.0479
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			Measles		
Apoptosis	0.15	0.205	0.115	0.154	0.0652
APP Metabolism					
Autophagy	0.0458	0.096	0.0496	0.147	-0.0472
Cell Cycle	-0.0293	-0.00427	-0.0453	0.189	0.134
DNA Repair	0.0863	0.0713	0.0435	0.201	0.209
Endolysosome	0.15	0.1	0.146	0.179	-0.022
Epigenetic	0.107	0.249	0.14	0.111	0.0457
Immune Response	0.116	0.0585	0.0539	0.126	0.0581
Lipid Metabolism	0.183	0.0944	0.136	0.188	0.111
Metal Binding and Homeostasis	0.0563	0.0638	0.0167	0.00581	-0.0468
Mitochondrial Metabolism	0.204	0.235	0.242	0.277	0.277
Myelination					
Oxidative Stress	0.0137	0.221	0.0492	0.251	0.115
Proteostasis	0.0538	0.0984	0.0485	0.153	0.0226
RNA Spliceosome					
Structural Stabilization	0.148	0.148	0.16	0.128	0.0872
Synapse	0.0506	0.0363	-0.0218	0.229	0.0717
Tau Homeostasis					
Vasculature	0.0888	0.153	0.192	0.195	6e-04
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Herpes si	mplex virus	1 infection	

			-		
Apoptosis	0.137	0.11	0.0842	0.225	0.0912
APP Metabolism					
Autophagy	0.102	0.055	0.0596	0.239	0.0391
Cell Cycle	0.0589	0.0421	0.129	0.239	0.16
DNA Repair	0.128	0.102	0.12	0.222	0.21
Endolysosome	0.0884	0.0709	0.0992	0.25	0.0363
Epigenetic	0.088	0.14	0.165	0.0571	0.0411
Immune Response	0.0949	0.0245	0.0317	0.171	0.11
Lipid Metabolism	0.19	0.0892	0.146	0.205	0.122
Metal Binding and Homeostasis	0.00238	0.00332	0.0726	-0.0153	-0.00776
Mitochondrial Metabolism	0.226	0.194	0.207	0.324	0.274
Myelination	0.175	0.0451	0.0811	0.423	0.256
Oxidative Stress	0.117	0.147	0.142	0.4	0.276
Proteostasis	0.07	-0.00461	0.0338	0.183	0.076
RNA Spliceosome	0.0153	-0.212	-0.106	0.17	0.177
Structural Stabilization	0.189	0.168	0.215	0.169	0.104
Synapse	0.0988	0.0702	0.0325	0.254	0.107
Tau Homeostasis					
Vasculature	0.108	0.17	0.243	0.198	0.044
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Human cytomegalovirus infection

0.0596	0.144	0.0866	-0.0499	-0.0604
0.0257	0.0273	0.0898	0.0996	-0.053
-0.0529	0.059	0.00263	0.0611	0.0156
0.0489	0.0834	0.0526	0.0124	0.00783
-0.0297	-0.0392	0.0406	0.252	-0.00808
0.102	0.168	0.152	0.0949	0.0717
0.0927	0.0962	0.122	0.0888	0.0594
0.176	0.236	0.276	0.0553	0.035
0.0492	0.111	0.108	0.021	-0.038
0.075	0.0431	0.121	0.0846	0.0157
-0.0107	0.0946	0.072	0.283	0.0993
0.0355	0.0806	0.0513	0.274	0.123
0.0687	0.0508	0.0749	0.195	0.0803
0.0927	0.164	0.164	0.105	0.036
0.0512	0.121	0.109	0.0702	0.0162
0.118	0.226	0.197	0.0877	0.0377
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	0.0257 -0.0529 0.0489 -0.0297 0.102 0.0927 0.176 0.0492 0.075 -0.0107 0.0355 0.0687 0.0927 0.118	0.0257 0.0273 -0.0529 0.059 0.0489 0.0834 -0.0297 -0.0392 0.102 0.168 0.0927 0.0962 0.176 0.236 0.0492 0.111 0.075 0.0431 -0.0107 0.0946 0.0355 0.0806 0.0687 0.0508 0.0927 0.164 0.0512 0.121 0.118 0.226	0.0257 0.0273 0.0898 -0.0529 0.059 0.00263 0.0489 0.0834 0.0526 -0.0297 -0.0392 0.0406 0.102 0.168 0.152 0.0927 0.0962 0.122 0.176 0.236 0.276 0.0492 0.111 0.108 0.075 0.0431 0.121 -0.0107 0.0946 0.072 0.0355 0.0806 0.0513 0.0687 0.0508 0.0749 0.0927 0.164 0.164 0.0512 0.121 0.109 0.118 0.226 0.197	0.0257 0.0273 0.0898 0.0996 -0.0529 0.059 0.00263 0.0611 0.0489 0.0834 0.0526 0.0124 -0.0297 -0.0392 0.0406 0.252 0.102 0.168 0.152 0.0949 0.0927 0.0962 0.122 0.0888 0.176 0.236 0.276 0.0553 0.0492 0.111 0.108 0.021 0.075 0.0431 0.121 0.0846 -0.0107 0.0946 0.072 0.283 0.0355 0.0806 0.0513 0.274 0.0687 0.0508 0.0749 0.195 0.0927 0.164 0.164 0.105 0.0512 0.121 0.109 0.0702 0.118 0.226 0.197 0.0877

Kaposi sarcoma-associated herpesvirus infection 0.123 0.239 0.147 0.12 0.0271

Apoptosis 0.123 0.239 0.147 0.12 0.0271 APP Metabolism Autophagy 0.00408 0.157 0.138 0.102 -0.09 Cell Cycle -0.05 0.102 0.0104 0.111 0.0525 DNA Repair 0.115 0.136 0.123 0.091 0.0769 Endolysosome -0.0303 0.0321 0.0434 0.248 0.0348 Epigenetic 0.129 0.29 0.173 0.102 0.0362 Immune Response 0.103 0.158 0.135 0.145 0.0973 Lipid Metabolism 0.19 0.232 0.243 0.208 0.16 Metal Binding and Homeostasis 0.0589 0.127 0.097 0.128 0.0427 Mitochondrial Metabolism 0.0907 0.0688 0.133 0.127 0.0647 Myelination 0.0428 0.153 0.121 0.364 0.112 Oxidative Stress 0.0281 0.244 0.0643 0.312 0.0893 Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization 0.116 0.181 0.132 0.136 0.103 Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00662		•			•	
Autophagy Cell Cycle -0.05 0.102 0.0104 0.111 0.0525 DNA Repair 0.115 0.136 0.123 0.091 0.0769 Endolysosome -0.0303 0.0321 0.0434 0.248 0.0348 Epigenetic 0.129 0.29 0.173 0.102 0.0462 Immune Response 0.103 0.158 0.135 0.145 0.0973 Lipid Metabolism 0.19 0.232 0.243 0.208 0.16 Metal Binding and Homeostasis 0.0589 0.127 0.097 0.128 0.0427 Mitochondrial Metabolism 0.0907 0.0688 0.133 0.127 0.0647 Myelination 0.0428 0.153 0.121 0.364 0.112 Oxidative Stress 0.0281 0.0888 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization Synapse 0.0409 0.12 0.019 0.193 0.193 0.107 0.0062	Apoptosis	0.123	0.239	0.147	0.12	0.0271
Cell Cycle -0.05 0.102 0.0104 0.111 0.0525 DNA Repair 0.115 0.136 0.123 0.091 0.0769 Endolysosome -0.0303 0.0321 0.0434 0.248 0.0348 Epigenetic 0.129 0.29 0.173 0.102 0.0362 Immune Response 0.103 0.158 0.135 0.145 0.0973 Lipid Metabolism 0.19 0.232 0.243 0.208 0.16 Metal Binding and Homeostasis 0.0589 0.127 0.097 0.128 0.0427 Mitochondrial Metabolism 0.0907 0.0688 0.133 0.127 0.0647 Myelination 0.0428 0.153 0.121 0.364 0.112 Oxidative Stress 0.0281 0.214 0.0643 0.312 0.0893 Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization 0.116 0.181 0.132 0.136	APP Metabolism					
DNA Repair Endolysosome -0.0303 0.0321 0.0434 0.248 0.0348 Epigenetic 0.129 0.29 0.173 0.102 0.0362 Immune Response 0.103 0.158 0.135 0.145 0.0973 Lipid Metabolism 0.19 0.232 0.243 0.208 0.16 Metal Binding and Homeostasis 0.0589 0.127 0.097 0.128 0.0427 Mitochondrial Metabolism 0.0907 0.0688 0.133 0.127 0.0647 Myelination 0.0428 0.153 0.121 0.364 0.112 Oxidative Stress 0.0281 0.214 0.0643 0.312 0.0893 Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization Synapse 0.0409 0.12 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.011 0.0082	Autophagy	0.00408	0.157	0.138	0.102	-0.09
Endolysosome	Cell Cycle	-0.05	0.102	0.0104	0.111	0.0525
Epigenetic 0.129 0.29 0.173 0.102 0.0362 Immune Response 0.103 0.158 0.135 0.145 0.0973 Lipid Metabolism 0.19 0.232 0.243 0.208 0.16 Metal Binding and Homeostasis 0.0589 0.127 0.097 0.128 0.0427 Mitochondrial Metabolism 0.0907 0.0688 0.133 0.127 0.0647 Myelination 0.0428 0.153 0.121 0.364 0.112 Oxidative Stress 0.0281 0.214 0.0643 0.312 0.0893 Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization 0.116 0.181 0.132 0.136 0.103 Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	DNA Repair	0.115	0.136	0.123	0.091	0.0769
Immune Response 0.103 0.158 0.135 0.145 0.0973 Lipid Metabolism 0.19 0.232 0.243 0.208 0.16 Metal Binding and Homeostasis 0.0589 0.127 0.097 0.128 0.0427 Mitochondrial Metabolism 0.0907 0.0688 0.133 0.127 0.0647 Myelination 0.0428 0.153 0.121 0.364 0.112 Oxidative Stress 0.0281 0.214 0.0643 0.312 0.0893 Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization 0.116 0.181 0.132 0.136 0.103 Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	Endolysosome	-0.0303	0.0321	0.0434	0.248	0.0348
Lipid Metabolism 0.19 0.232 0.243 0.208 0.16 Metal Binding and Homeostasis 0.0589 0.127 0.097 0.128 0.0427 Mitochondrial Metabolism 0.0907 0.0688 0.133 0.127 0.0647 Myelination 0.0428 0.153 0.121 0.364 0.112 Oxidative Stress 0.0281 0.214 0.0643 0.312 0.0893 Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization Synapse 0.0409 0.116 0.181 0.132 0.136 0.103 Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	Epigenetic	0.129	0.29	0.173	0.102	0.0362
Metal Binding and Homeostasis 0.0589 0.127 0.097 0.128 0.0427 Mitochondrial Metabolism 0.0907 0.0688 0.133 0.127 0.0647 Myelination 0.0428 0.153 0.121 0.364 0.112 Oxidative Stress 0.0281 0.214 0.0643 0.312 0.0893 Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization 0.116 0.181 0.132 0.136 0.103 Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	Immune Response	0.103	0.158	0.135	0.145	0.0973
Mitochondrial Metabolism 0.0907 0.0688 0.133 0.127 0.0647 Myelination 0.0428 0.153 0.121 0.364 0.112 Oxidative Stress 0.0281 0.214 0.0643 0.312 0.0893 Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization 0.116 0.181 0.132 0.136 0.103 Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	Lipid Metabolism	0.19	0.232	0.243	0.208	0.16
Myelination 0.0428 0.153 0.121 0.364 0.112 Oxidative Stress 0.0281 0.214 0.0643 0.312 0.0893 Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	Metal Binding and Homeostasis	0.0589	0.127	0.097	0.128	0.0427
Oxidative Stress 0.0281 0.214 0.0643 0.312 0.0893 Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	Mitochondrial Metabolism	0.0907	0.0688	0.133	0.127	0.0647
Proteostasis 0.0688 0.162 0.0886 0.197 0.0721 RNA Spliceosome Structural Stabilization 0.116 0.181 0.132 0.136 0.103 Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	Myelination	0.0428	0.153	0.121	0.364	0.112
RNA Spliceosome Structural Stabilization	Oxidative Stress	0.0281	0.214	0.0643	0.312	0.0893
Structural Stabilization 0.116 0.181 0.132 0.136 0.103 Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	Proteostasis	0.0688	0.162	0.0886	0.197	0.0721
Synapse 0.0409 0.12 0.0714 0.0998 0.0133 Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	RNA Spliceosome					
Tau Homeostasis Vasculature 0.119 0.311 0.193 0.107 0.00862	Structural Stabilization	0.116	0.181	0.132	0.136	0.103
Vasculature 0.119 0.311 0.193 0.107 0.00862	Synapse	0.0409	0.12	0.0714	0.0998	0.0133
	Tau Homeostasis					
WT/WT WT/FC FC/FC WT/VS VS/VS	Vasculature	0.119	0.311	0.193	0.107	0.00862
		WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Epstein-	-Barr	virus	infection

		_poto	Epstein-Bail vilus infection						
Apoptosis	0.0807	0.119	0.0618	0.139	0.0494				
APP Metabolism	0.0307	-0.23	-0.204	0.146	0.119				
Autophagy	0.0749	0.00831	0.0808	0.169	0.0166				
Cell Cycle	-0.029	0.0708	0.0331	0.131	0.081				
DNA Repair	-0.0649	-0.0959	-0.0634	0.0242	-0.0208				
Endolysosome	0.0392	-0.0269	0.0622	0.142	0.00694				
Epigenetic	0.0407	0.0922	0.0459	0.149	0.0554				
Immune Response	0.104	0.0554	0.0665	0.151	0.101				
Lipid Metabolism	0.139	0.051	0.116	0.18	0.106				
Metal Binding and Homeostasis	0.0453	-0.0655	-0.0166	0.0742	0.0596				
Mitochondrial Metabolism	0.134	0.133	0.229	0.167	0.196				
Myelination	0.117	-0.0472	-0.00146	0.519	0.335				
Oxidative Stress	0.0213	0.0833	0.0258	0.236	0.071				
Proteostasis	-0.0647	-0.121	-0.12	0.181	0.00789				
RNA Spliceosome									
Structural Stabilization	0.0591	0.0554	0.0722	0.125	0.0146				
Synapse	0.0477	0.00261	0.0143	0.233	0.0533				
Tau Homeostasis									
Vasculature	0.0767	0.122	0.178	0.185	0.0536				
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS				

Human papillomavirus infection

	Turnari papinomavirus inicotion						
Apoptosis	0.125	0.18	0.0873	0.0872	0.021		
APP Metabolism	0.0767	0.127	0.0563	-0.148	-0.137		
Autophagy	0.000409	0.0524	-0.00118	0.136	-0.076		
Cell Cycle	0.0158	0.0535	0.0245	0.167	0.0791		
DNA Repair	0.111	0.182	0.0994	0.00923	-0.00326		
Endolysosome	0.0191	-0.0235	-0.0236	0.2	0.0313		
Epigenetic	0.116	0.17	0.0923	0.0353	0.0514		
Immune Response	0.111	0.117	0.0641	0.0938	0.0563		
Lipid Metabolism	0.176	0.227	0.2	0.0344	0.0328		
Metal Binding and Homeostasis	0.0904	0.0958	0.121	0.0714	0.0393		
Mitochondrial Metabolism	-0.00574	-0.0658	-0.0842	0.257	0.0733		
Myelination	0.176	0.196	0.174	0.17	0.0163		
Oxidative Stress	0.0411	0.0641	-0.0244	0.0552	0.0103		
Proteostasis	0.15	0.175	0.128	0.121	0.0631		
RNA Spliceosome							
Structural Stabilization	0.151	0.168	0.183	0.047	0.0368		
Synapse	0.103	0.144	0.0872	0.0595	-0.0139		
Tau Homeostasis							
Vasculature	0.167	0.251	0.19	0.0207	0.0218		
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		

Salmonella infection

				Calificia inicolori					
Apoptosis	0.0752	0.117	0.0709	0.152	0.0213				
APP Metabolism									
Autophagy	0.0287	0.104	0.132	0.0663	-0.143				
Cell Cycle	-0.0595	-0.00131	-0.0484	0.228	2.86e-06				
DNA Repair	0.00516	0.0684	0.0707	0.0478	-0.0192				
Endolysosome	0.0479	0.0518	0.0493	0.188	-0.0539				
Epigenetic	0.0372	0.144	0.0499	0.16	0.0297				
Immune Response	0.0192	0.0175	-0.00993	0.2	0.0245				
Lipid Metabolism	0.0863	0.0599	0.0599	0.21	0.0654				
Metal Binding and Homeostasis	0.019	0.0121	-0.0453	0.172	0.0592				
Mitochondrial Metabolism	0.0965	0.0465	0.134	0.258	0.128				
Myelination	0.207	0.0978	0.096	0.318	0.202				
Oxidative Stress	0.00199	0.149	0.0589	0.303	0.0792				
Proteostasis	0.04	0.0469	0.0251	0.229	0.0364				
RNA Spliceosome									
Structural Stabilization	-0.0821	-0.105	-0.0989	0.184	0.00724				
Synapse	-0.0714	-0.0168	-0.0797	0.155	-0.0395				
Tau Homeostasis									
Vasculature	-0.00946	0.0425	0.00126	0.208	0.025				
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS				

Y	er	SI	nıa	intection	

Apoptosis APP Metabolism Autophagy Cell Cycle DNA Repair Endolysosome	0.0956 0.0556 -0.0344 0.12	0.254 0.214 0.139	0.206 0.201 0.15	0.086	-0.0303 -0.0669
Autophagy Cell Cycle DNA Repair	-0.0344			0.189	-0.0669
Cell Cycle DNA Repair	-0.0344			0.189	-0.0669
DNA Repair		0.139	0.15		
· ·	0.12			0.0527	-0.142
Endolysosome		0.287	0.18	0.0654	-0.0327
	0.0158	0.0841	0.0545	0.2	0.0394
Epigenetic	0.105	0.296	0.216	0.117	0.0355
Immune Response	0.0753	0.151	0.114	0.154	0.0408
Lipid Metabolism	0.117	0.195	0.196	0.18	0.112
Metal Binding and Homeostasis	0.155	0.272	0.25	0.0786	-0.0194
Mitochondrial Metabolism	0.0378	0.151	0.166	0.167	0.0494
Myelination					
Oxidative Stress	-0.0273	0.181	0.124	0.246	0.00294
Proteostasis	0.0453	0.193	0.129	0.202	0.0373
RNA Spliceosome					
Structural Stabilization	-0.0127	0.0504	0.0373	0.0904	0.00101
Synapse	0.0327	0.129	0.107	0.165	0.00274
Tau Homeostasis					
Vasculature	0.0619	0.179	0.142	0.102	0.00363
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			Pertussis		
Apoptosis	0.0257	0.048	-0.00493	0.171	0.0364
APP Metabolism					
Autophagy	0.0362	0.141	0.129	0.127	0.0206
Cell Cycle	-0.182	-0.113	-0.124	0.151	-0.0442
DNA Repair					
Endolysosome	0.0682	0.154	0.0974	0.204	-0.058
Epigenetic	0.016	0.284	0.146	0.109	-0.00569
Immune Response	-0.0235	0.00729	-0.0575	0.0978	0.0252
Lipid Metabolism	-0.0202	0.0489	-0.0533	0.115	0.0308
Metal Binding and Homeostasis	-0.0722	0.0732	-0.0802	0.0397	-0.0909
Mitochondrial Metabolism	-0.0572	0.106	0.109	0.0314	-0.0839
Myelination					
Oxidative Stress	-0.0969	0.178	0.0184	0.159	-0.0936
Proteostasis	0.0266	0.103	0.0211	0.136	0.0461
RNA Spliceosome					
Structural Stabilization	-0.103	-0.0607	-0.107	0.165	-0.0398
Synapse	-0.101	-0.0155	-0.0462	0.207	0.0193
Tau Homeostasis					
Vasculature	-0.0868	-0.0301	-0.119	0.206	-0.0061
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		l	_egionellosi	6	
Apoptosis	0.0513	0.115	0.0731	0.208	0.155
APP Metabolism					
Autophagy	-0.116	-0.016	-0.0142	0.205	0.0258
Cell Cycle					
DNA Repair					
Endolysosome	-0.0486	0.0565	0.113	0.246	0.0109
Epigenetic	0.192	0.319	0.125	0.454	0.334
Immune Response	-0.0658	-0.0058	-0.0581	0.162	0.0976
Lipid Metabolism	0.025	0.0752	0.0574	0.223	0.146
letal Binding and Homeostasis					
Mitochondrial Metabolism	0.253	0.351	0.431	0.335	0.217
Myelination					

Immune Response	-0.0658	-0.0058	-0.0581	0.162	0.0976
Lipid Metabolism	0.025	0.0752	0.0574	0.223	0.146
Metal Binding and Homeostasis					
Mitochondrial Metabolism	0.253	0.351	0.431	0.335	0.217
Myelination					
Oxidative Stress					
Proteostasis	-0.0944	-0.0926	-0.118	0.245	0.132
RNA Spliceosome					
Structural Stabilization	-0.0536	-0.0438	-0.0949	0.175	0.095
Synapse	0.00813	0.109	0.0899	0.374	0.122

0.0952

WT/FC

0.0873

WT/WT

0.146

FC/FC

0.23

VS/VS

0.443

WT/VS

Tau Homeostasis

Vasculature

	Staphylococcus aureus infection					
Apoptosis						
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome	-0.0741	0.0904	-0.129	0.0204	0.0384	
Epigenetic						
Immune Response	-0.00346	-0.00337	-0.117	0.154	0.111	
Lipid Metabolism	0.0999	0.0769	0.0197	0.0222	0.0271	
Metal Binding and Homeostasis						
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis	0.0883	-0.0196	-0.149	0.0954	0.0505	
RNA Spliceosome						
Structural Stabilization	-0.0596	-0.0749	-0.143	0.0587	0.0319	
Synapse	0.0239	-0.0313	-0.0862	0.278	0.151	
Tau Homeostasis						
Vasculature	0.063	0.0489	-0.0556	0.249	0.102	
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

		•	Tuberculosis	3
Apoptosis	0.1	0.0889	0.0175	

			raboroaroore	•	
Apoptosis	0.1	0.0889	0.0175	0.193	0.09
APP Metabolism	-0.0377	-0.0125	-0.0144	0.0185	0.0582
Autophagy	0.061	0.0274	0.0553	0.236	0.066
Cell Cycle	-0.0578	-0.0538	0.00511	0.134	0.0741
DNA Repair	0.145	0.0803	0.0612	0.115	0.194
Endolysosome	0.0365	0.00821	0.0389	0.241	0.023
Epigenetic	0.12	0.205	0.135	0.158	0.054
Immune Response	0.0234	0.0231	0.0042	0.138	0.0179
Lipid Metabolism	0.067	0.0252	0.0198	0.171	0.0387
Metal Binding and Homeostasis	0.00571	0.0597	-0.0198	-0.0218	-0.0348
Mitochondrial Metabolism	0.044	-0.0174	0.0374	0.18	0.0764
Myelination	0.121	0.112	0.101	0.377	0.213
Oxidative Stress	0.106	0.175	0.116	0.202	0.0724
Proteostasis	0.0453	0.0188	0.0283	0.164	0.0571
RNA Spliceosome					
Structural Stabilization	0.0172	-0.0328	-0.0672	0.158	0.0295
Synapse	0.0258	0.039	0.0248	0.177	-0.01
Tau Homeostasis					
Vasculature	0.00279	0.0269	0.0437	0.205	0.0272
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Bacterial invasion of epithelial cells

Apoptosis	0.083	0.179	0.0978	0.0685	-0.115
APP Metabolism					
Autophagy	-0.054	0.134	0.0565	0.0736	-0.194
Cell Cycle	-0.129	0.0295	-0.0309	-0.000115	-0.176
DNA Repair					
Endolysosome	0.0113	0.155	0.0348	0.0689	-0.121
Epigenetic	-0.00954	0.191	0.0243	0.0243	-0.0902
Immune Response	0.0706	0.133	0.092	0.142	-0.0198
Lipid Metabolism	0.203	0.461	0.277	0.0486	-0.0752
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0568	0.198	0.0576	0.205	0.0301
RNA Spliceosome					
Structural Stabilization	-0.0446	0.0175	-0.00641	0.0556	-0.0994
Synapse	-0.0345	0.0547	0.0188	0.0377	-0.0837
Tau Homeostasis					
Vasculature	0.113	0.23	0.116	0.139	-0.0342
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			Amoebiasis	
Apoptosis	0.0318	0.0592	0.121	

			Amoebiasis		
Apoptosis	0.0318	0.0592	0.121	0.0304	0.0363
APP Metabolism					
Autophagy	0.017	-0.0564	0.104	0.109	0.00779
Cell Cycle					
DNA Repair					
Endolysosome	0.0228	-0.119	0.137	0.27	-0.00947
Epigenetic	0.276	0.378	0.337	0.13	0.167
Immune Response	0.108	0.0634	0.146	0.0543	0.052
Lipid Metabolism	0.111	0.149	0.25	-0.00663	-0.0676

0.108	0.0634	0.146	0.0543	0.052
0.111	0.149	0.25	-0.00663	-0.0676
0.0334	0.031	0.0481	-0.0776	-0.0144
0.0261	0.0636	0.0863	-0.0709	-0.236
	0.111	0.111 0.149 0.0334 0.031	0.111 0.149 0.25 0.0334 0.031 0.0481	0.111 0.149 0.25 -0.00663 0.0334 0.031 0.0481 -0.0776

0.0334	0.031	0.0481	-0.0776	-0.0144
0.0261	0.0636	0.0863	-0.0709	-0.236
-0.0727	0.0528	-0.124	0.135	0.0438
0.225	0.176	0.223	0.092	0.146
	0.0261 -0.0727	0.0261 0.0636 -0.0727 0.0528	0.0261 0.0636 0.0863 -0.0727 0.0528 -0.124	0.0261 0.0636 0.0863 -0.0709 -0.0727 0.0528 -0.124 0.135

Mitochondrial Metabolism	0.0261	0.0636	0.0863	-0.0709	-0.236
Myelination					
Oxidative Stress	-0.0727	0.0528	-0.124	0.135	0.0438
Proteostasis	0.225	0.176	0.223	0.092	0.146
RNA Spliceosome					
Structural Stabilization	0.199	0.199	0.263	-0.0109	0.0419

Oxidative Stress	-0.0727	0.0528	-0.124	0.135	0.0438
Proteostasis	0.225	0.176	0.223	0.092	0.146
RNA Spliceosome					
Structural Stabilization	0.199	0.199	0.263	-0.0109	0.0419
Synapse	0.16	0.129	0.196	0.058	0.0413
Tau Homeostasis					
Vasculature	0.221	0.263	0.298	0.064	0.0589

WT/FC

WT/WT

FC/FC

WT/VS

	Malaria				
Apoptosis	0.0337	-0.000565	0.0495	0.0549	-0.0539
APP Metabolism					
Autophagy	0.124	0.221	0.23	-0.0084	-0.0769
Cell Cycle					
DNA Repair					
Endolysosome	0.0464	0.0677	0.178	-0.0451	-0.0657
Epigenetic	0.0127	0.0552	-0.0095	0.11	0.0152
Immune Response	0.0741	0.0299	0.098	0.00803	-0.0303
Lipid Metabolism	0.0919	0.00679	0.117	0.012	-0.0286
Metal Binding and Homeostasis	0.0227	0.219	0.238	-0.231	-0.0938
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0966	0.14	0.158	-0.126	-0.0727
RNA Spliceosome					
Structural Stabilization	0.0963	0.0289	0.103	0.0161	-0.0171
Synapse	0.1	0.202	0.184	0.00782	-0.0585
Tau Homeostasis					
Vasculature	0.0454	0.0393	0.152	-0.0213	-0.055
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Toxoplasmosis					
Apoptosis	0.223	0.188	0.166	0.265			

Apoptosis	0.223	0.188	0.166	0.265	0.0681
APP Metabolism					
Autophagy	0.128	0.141	0.136	0.281	0.0312
Cell Cycle	0.13	0.149	0.198	0.293	0.0299
DNA Repair	0.202	0.232	0.24	0.16	0.0913
Endolysosome	0.0512	0.125	0.0984	0.198	-0.0752
Epigenetic	0.267	0.37	0.283	0.239	0.0751
Immune Response	0.111	0.118	0.11	0.158	0.0192
Lipid Metabolism	0.148	0.141	0.142	0.184	0.0295
Metal Binding and Homeostasis	0.133	0.226	0.156	0.0862	-0.135
Mitochondrial Metabolism	0.289	0.271	0.335	0.317	0.181
Myelination	0.504	0.442	0.419	0.421	0.282
Oxidative Stress	0.176	0.283	0.188	0.354	0.129
Proteostasis	0.144	0.111	0.145	0.207	0.0243
RNA Spliceosome					
Structural Stabilization	0.211	0.278	0.268	0.115	0.0182
Synapse	0.156	0.237	0.216	0.157	-0.0265
Tau Homeostasis					
Vasculature	0.12	0.238	0.195	0.115	-0.0527
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

L	eishmani	iasis

Apoptosis	0.0727	0.155	0.0462	0.132	-0.0474
APP Metabolism	-0.0821	0.119	0.0501	-0.0527	-0.0333
Autophagy	0.0337	0.037	0.0273	0.19	-0.0158
Cell Cycle	-0.103	0.0609	0.0769	-0.026	-0.144
DNA Repair					
Endolysosome	-0.0269	0.064	0.0108	0.11	-0.0876
Epigenetic	0.0477	0.258	0.0871	0.163	0.00638
Immune Response	0.00734	0.0888	0.00271	0.118	-0.0366
Lipid Metabolism	0.066	0.168	0.0615	0.124	-0.0392
Metal Binding and Homeostasis	6.52e-05	0.204	0.0522	-0.116	-0.243
Mitochondrial Metabolism	0.0596	-0.032	0.0335	0.19	0.0808
Myelination					
Oxidative Stress	-0.00608	0.236	0.0596	0.184	-0.0366
Proteostasis	0.00976	0.208	0.0422	0.182	-0.0939
RNA Spliceosome					
Structural Stabilization	-0.00107	0.177	0.0629	-0.0666	-0.203
Synapse	0.0612	0.217	0.169	0.0945	-0.0718
Tau Homeostasis					
Vasculature	0.013	0.165	0.124	0.0307	-0.106
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Chagas c	lisease
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0.0404

0.0714

-0.00376

-0.0117

0.0268

0.0408

0.0836

-0.0805

-0.036

-0.0331

-0.0257

0.128

0.0221

0.0776

VS/VS

		Ci	iayas uisea	9 <u>C</u>
Apoptosis	0.134	0.14	0.104	0.224
APP Metabolism				
Autophagy	0.184	0.245	0.268	0.325
Cell Cycle	-0.0214	0.0292	0.0997	0.316
DNA Repair				
Endolysosome	0.122	0.163	0.101	0.284
Epigenetic	0.181	0.327	0.249	0.211
Immune Response	0.0899	0.114	0.0926	0.172
Lipid Metabolism	0.189	0.184	0.197	0.196
Metal Binding and Homeostasis	0.0784	0.143	0.117	0.0684
Mitochondrial Metabolism	0.0658	0.0944	0.23	0.138
Myelination				
Oxidative Stress	0.0278	0.285	0.181	0.205
Proteostasis	0.0546	0.153	0.0619	0.178
RNA Spliceosome				
Structural Stabilization	0.161	0.116	0.156	0.294
Synapse	0.0823	0.0751	0.074	0.233
Tau Homeostasis				
Vasculature	0.178	0.166	0.161	0.269
	WT/WT	WT/FC	FC/FC	WT/VS

			71		
Apoptosis	-0.134	-0.164	-0.0508	0.0175	-0.112
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	-0.228	-0.0147	-0.0111	-0.0394	-0.248
Epigenetic					
Immune Response	-0.193	-0.102	-0.0821	-0.0773	-0.175
Lipid Metabolism	-0.0993	-0.152	0.00633	-0.0977	-0.135
Aetal Rinding and Homeostasis	-0.212	0.00329	0.0802	-0.325	-0.315

African trypanosomiasis

Mitochondrial Metabolism Myelination Oxidative Stress Proteostasis -0.159 -0.0206 0.0392 -0.0439-0.105

RNA Spliceosome

Structural Stabilization	-0.225	-0.0919	0.00138	-0.219	-0.178
Synapse	-0.13	0.0272	0.149	-0.148	-0.225
Tau Homeostasis					
Vasculature	-0.279	-0.0562	-0.0298	-0.28	-0.259
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

			Asthma		
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	-0.124	0.0174	-0.205	0.0173	-0.00937
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Systemic lupus erythematosus				
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic	-0.0287	-0.108	-0.0782	0.29	0.255
Immune Response	-0.0272	0.0243	-0.04	0.126	0.0957
Lipid Metabolism	0.0136	-0.0195	-0.0448	0.0572	-0.00157
letal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.0579	0.0721	-0.0189	-0.0659	-0.0934
RNA Spliceosome					
Structural Stabilization					
Synapse	-0.0298	0.00727	0.011	0.199	0.18
Tau Homeostasis					
Vasculature					

WT/WT WT/FC FC/FC WT/VS VS/VS

		Rhe	umatoid artl	hritis
;	0.0736	0.0436	0.0108	0.023

Apoptosis	0.0736	0.0436	0.0108	0.0239	0.0576
APP Metabolism					
Autophagy	-0.106	-0.26	-0.162	0.219	0.0271
Cell Cycle					
DNA Repair					
Endolysosome	-0.151	-0.209	-0.219	0.189	0.0129
Epigenetic	0.00557	0.0735	0.0285	0.102	0.154
Immune Response	0.0503	0.0389	-0.0272	0.0867	0.087
Lipid Metabolism	0.0469	0.0434	-0.062	-0.103	-0.0441
Metal Binding and Homeostasis	-0.193	-0.123	-0.157	-0.0245	0.0201
Mitochondrial Metabolism	-0.195	-0.348	-0.323	0.268	0.0113
Myelination					
Oxidative Stress					
Proteostasis	0.0834	0.145	0.12	0.153	0.0169
RNA Spliceosome					
Structural Stabilization	0.138	0.0246	0.0149	0.0344	0.0724
Synapse	-0.0813	-0.113	-0.133	0.104	-0.0574
Tau Homeostasis					
Vasculature	0.108	0.143	0.0865	0.0519	0.0421
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Autoimm	nune thyroid	disease	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	-0.011	0.0414	-0.126	0.032	0.0514
Lipid Metabolism	0.0436	-0.0506	-0.158	-0.0299	-0.0441
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

0.146 0.0569 0.0319 0.0143

Inflammatory bowel disease

			•		
Apoptosis	0.0569	0.146	0.0319	0.0143	-0.0209
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	-0.0913	-0.0302	-0.0819	0.0163	-0.0294
Epigenetic	0.106	0.218	0.0816	0.0642	0.0574
Immune Response	0.0202	0.0753	0.0479	0.024	0.025
Lipid Metabolism	0.0515	0.0655	-0.00386	-0.0654	-0.00255
Metal Binding and Homeostasis	0.121	0.249	0.0683	-0.175	-0.162
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.12	0.123	0.0643	0.124	-0.00513
RNA Spliceosome					
Structural Stabilization	0.046	-0.0858	-0.0706	0.0428	0.0392
Synapse	0.185	0.14	0.13	0.127	0.00408
Tau Homeostasis					
Vasculature	0.11	0.234	0.0819	0.131	-0.00143
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Allo	ograft rejecti	on	
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic					
Immune Response	-0.0582	-0.0266	-0.153	0.0536	0.0193
Lipid Metabolism	-0.00351	-0.142	-0.161	-0.0136	-0.0471
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Graft-v	ersus-host	disease	
-0.00677	0.0363	-0.123	0.0754	0.0694
0.0358	-0.016	-0.149	0.0142	0.0053
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	0.0358	-0.00677 0.0363 0.0358 -0.016	-0.00677 0.0363 -0.123 0.0358 -0.016 -0.149	0.0358 -0.016 -0.149 0.0142

	Primary immunodeficiency					
Apoptosis	-0.0473	0.0333	0.0194	-0.0946	-0.0087	
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome						
Epigenetic						
Immune Response	0.0581	-0.0471	0.00936	0.0155	0.00206	
Lipid Metabolism	0.000193	-0.104	-0.101	0.0796	0.0926	
Metal Binding and Homeostasis						
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis	0.118	-0.000201	0.0858	-0.159	-0.12	
RNA Spliceosome						
Structural Stabilization						
Synapse						
Tau Homeostasis						
Vasculature						
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

Alzheimer disease

Apoptosis	0.0016	0.0823	0.00788	0.0376	-0.0366
APP Metabolism	0.104	0.299	0.115	-0.00331	-0.0454
Autophagy	0.0987	0.232	0.257	0.114	-0.0102
Cell Cycle	-0.0995	-0.0416	-0.0883	0.102	0.0327
DNA Repair	0.00358	0.0426	-0.0144	0.0887	0.00568
Endolysosome	0.0711	0.143	0.0767	0.134	-0.0255
Epigenetic	0.0809	0.159	0.0883	0.136	0.0546
Immune Response	0.0546	0.123	0.0522	0.0941	0.0154
Lipid Metabolism	0.114	0.171	0.155	0.0931	0.0117
Metal Binding and Homeostasis	-0.0979	-0.129	-0.146	0.0803	-0.0303
Mitochondrial Metabolism	-0.274	-0.436	-0.424	0.103	-0.0374
Myelination	0.0276	0.117	0.104	0.237	0.0504
Oxidative Stress	-0.156	-0.201	-0.224	0.099	-0.0241
Proteostasis	-0.0271	-0.059	-0.0832	0.156	0.0021
RNA Spliceosome					
Structural Stabilization	0.0739	0.127	0.0659	0.109	0.00292
Synapse	0.0342	0.122	0.0502	0.038	-0.037
Tau Homeostasis					
Vasculature	0.0785	0.265	0.14	0.025	-0.0834
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Parkinson disease

Apoptosis	-0.131	-0.183	-0.201	0.203	-0.0116
APP Metabolism					
Autophagy	-0.108	-0.103	-0.215	0.209	0.0279
Cell Cycle	-0.171	-0.261	-0.302	0.382	0.176
DNA Repair	-0.215	-0.43	-0.425	0.206	0.08
Endolysosome	-0.0912	-0.131	-0.224	0.296	0.00708
Epigenetic	-0.118	-0.182	-0.225	0.282	-0.0121
Immune Response	-0.0931	-0.164	-0.185	0.236	0.055
Lipid Metabolism	-0.111	-0.223	-0.245	0.132	0.005
letal Binding and Homeostasis	-0.148	-0.252	-0.316	0.224	0.0312
Mitochondrial Metabolism	-0.382	-0.586	-0.607	0.149	-0.0363
Myelination					
Oxidative Stress	-0.293	-0.394	-0.423	0.166	-0.0278
Proteostasis	-0.166	-0.331	-0.343	0.302	0.0256
RNA Spliceosome					
Structural Stabilization	-0.122	-0.157	-0.269	0.273	0.0533
Synapse	-0.0882	-0.151	-0.207	0.227	0.0578
Tau Homeostasis					
Vasculature	-0.00657	-0.0829	-0.125	0.227	-0.00455
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	WT/WT	WT/FC	FC/FC	WT/VS	V

Amyotrophic lateral sclerosis

Apoptosis	-0.0224	-0.0185	-0.00985	0.193	-0.0113
APP Metabolism	-0.203	-0.0774	-0.156	-0.411	-0.157
Autophagy	0.0531	0.15	0.133	0.275	-0.00197
Cell Cycle	-0.106	-0.169	-0.133	0.209	0.0598
DNA Repair	-0.0971	-0.178	-0.157	0.0477	0.0789
Endolysosome	-0.0477	-0.0145	-0.0268	0.232	-0.0796
Epigenetic	-0.0142	-0.0194	-0.0507	0.183	0.0239
Immune Response	-0.0242	-0.0984	-0.0687	0.317	0.0571
Lipid Metabolism	-0.0319	-0.0812	-0.0406	0.208	0.0296
Metal Binding and Homeostasis	-0.175	-0.272	-0.308	0.189	0.0373
Mitochondrial Metabolism	-0.318	-0.54	-0.525	0.191	0.00382
Myelination	0.0935	0.148	0.116	0.185	-0.0168
Oxidative Stress	-0.248	-0.354	-0.346	0.175	0.0514
Proteostasis	-0.122	-0.248	-0.213	0.254	0.0347
RNA Spliceosome	-0.0377	0.0272	-0.0156	-0.314	-0.0853
Structural Stabilization	-0.046	-0.0787	-0.0967	0.16	-0.0132
Synapse	-0.0235	-0.013	-0.0164	0.117	-0.00758
Tau Homeostasis					
Vasculature	-0.0956	-0.081	-0.102	0.184	-0.0021
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Huntington disease

Apoptosis	-0.0839	-0.0848	-0.0747	0.0586	-0.0377
APP Metabolism	-0.112	0.224	0.0912	-0.378	-0.224
Autophagy	0.0961	0.242	0.248	0.0611	-0.056
Cell Cycle	-0.206	-0.189	-0.239	0.152	0.0228
DNA Repair	-0.0303	-0.00143	-0.065	-0.0249	-0.0274
Endolysosome	0.00935	0.107	0.097	0.175	-0.0449
Epigenetic	0.0664	0.127	0.141	0.0285	-0.049
Immune Response	-0.0447	0.0281	0.00389	0.0354	-0.0676
Lipid Metabolism	-0.00286	0.00974	0.0793	0.13	0.0162
Metal Binding and Homeostasis	-0.216	-0.268	-0.279	0.105	-0.000419
Mitochondrial Metabolism	-0.345	-0.557	-0.524	0.118	-0.0372
Myelination					
Oxidative Stress	-0.317	-0.374	-0.393	-0.00163	-0.0634
Proteostasis	-0.143	-0.27	-0.233	0.219	0.0402
RNA Spliceosome					
Structural Stabilization	-0.054	-0.158	-0.121	0.172	0.0599
Synapse	-0.0276	0.0249	0.03	-0.0164	-0.0525
Tau Homeostasis					
Vasculature	0.00585	-0.0178	0.0873	0.0582	-0.014
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Spinocerebellar ataxia

-0.142

-0.00323

-0.0567

-0.253

-0.0605

-0.0645

-0.0557

-0.208

-0.0958

-0.0113

-0.0276

-0.106

-0.198

-0.147

VS/VS

Apoptosis	-0.038	0.0735	0.123	-1.67e-05
APP Metabolism				
Autophagy	0.144	0.279	0.373	0.175
Cell Cycle	0.0131	0.16	0.333	-0.00379
DNA Repair				
Endolysosome	0.0294	0.357	0.373	-0.16
Epigenetic	0.176	0.339	0.326	0.0205
Immune Response	0.0266	0.151	0.241	0.00191
Lipid Metabolism	0.137	0.226	0.374	0.0385
Metal Binding and Homeostasis	-0.0328	0.15	0.283	-0.234
Mitochondrial Metabolism	0.0998	0.166	0.233	0.0131
Myelination				
Oxidative Stress	0.0977	0.206	0.206	0.147
Proteostasis	-0.0837	-0.153	-0.0927	0.144
RNA Spliceosome				
Structural Stabilization	0.0701	0.184	0.28	-0.102
Synapse	0.0538	0.188	0.287	-0.162
Tau Homeostasis				
Vasculature	0.206	0.449	0.473	-0.119
	WT/WT	WT/FC	FC/FC	WT/VS

	F	Prion disease
-0.13	-0.118	-0.135

Anontosis

Apoptosis	-0.13	-0.118	-0.135	0.0946	-0.0815
APP Metabolism					
Autophagy	-0.0945	-0.119	-0.146	0.187	0.0111
Cell Cycle	-0.133	-0.182	-0.212	0.254	0.117
DNA Repair	-0.112	-0.144	-0.0977	0.0264	0.0165
Endolysosome	-0.115	-0.173	-0.193	0.346	-0.00796
Epigenetic	0.0381	0.146	0.128	0.0792	0.0273
Immune Response	-0.102	-0.098	-0.132	0.184	0.0324
Lipid Metabolism	-0.0678	-0.0387	-0.0849	0.115	-0.0165
Metal Binding and Homeostasis	-0.226	-0.31	-0.362	0.125	-0.0126
Mitochondrial Metabolism	-0.366	-0.598	-0.578	0.127	-0.0308
Myelination					
Oxidative Stress	-0.312	-0.399	-0.384	0.106	-0.0771
Proteostasis	-0.151	-0.298	-0.292	0.229	0.0264
RNA Spliceosome					
Structural Stabilization	-0.012	-0.024	-0.0704	0.226	0.0669
Synapse	-0.071	-0.0384	-0.0897	0.0829	-0.0121
Tau Homeostasis					
Vasculature	-0.0411	0.0276	-0.0011	0.115	0.000917
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Pathways of neurodegeneration – multiple diseases					
Apoptosis	-0.0219	0.00736	-0.0359	0.102	-0.00857	
APP Metabolism	-0.0222	0.195	0.0357	-0.157	-0.118	
Autophagy	0.0337	0.135	0.109	0.199	-0.0209	
Cell Cycle	-0.146	-0.0608	-0.105	0.0935	0.0263	
DNA Repair	-0.0418	-0.0641	-0.0589	0.119	0.0671	
Endolysosome	0.00553	0.0601	0.0201	0.187	-0.0419	
Epigenetic	0.0425	0.12	0.0222	0.116	0.00746	
Immune Response	-0.0182	0.00289	-0.0393	0.148	0.00256	
Lipid Metabolism	0.0327	0.0486	0.0435	0.142	0.0167	
Metal Binding and Homeostasis	-0.142	-0.21	-0.204	0.102	0.00456	

-0.228

-0.0899

0.0307

0.0866

0.128

WT/FC

-0.236

-0.102

-0.00409

0.0527

0.0253

FC/FC

0.143

Mitochondrial Metabolism -0.235 -0.381 -0.371 Myelination 0.0185 0.126 0.0417

Oxidative Stress

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

Proteostasis

Synapse

Vasculature

-0.162

-0.0475

0.0153

0.0221

-0.0159

WT/WT

0.00348 0.0275 0.0043 -0.0237 -0.0459

VS/VS

-0.0128

0.00231

0.188

0.142

0.191

0.111

0.0387

0.0438

WT/VS

Cocaine addiction

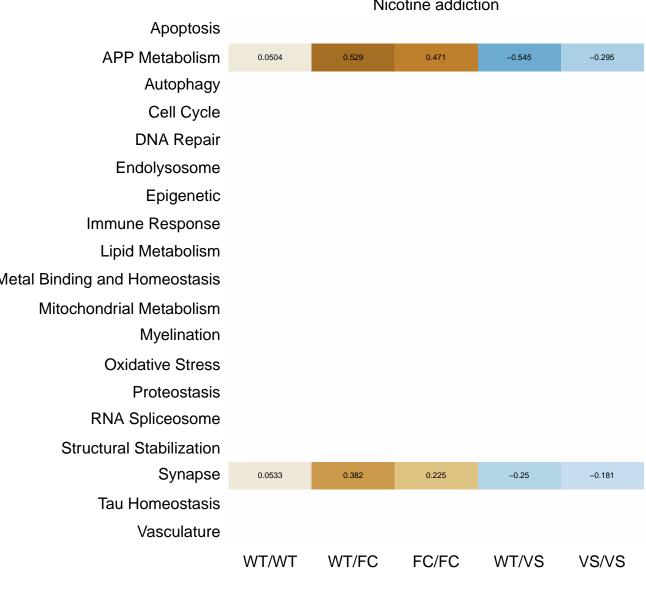
		Co	caine addict	ion	
Apoptosis	-0.0227	0.156	-0.0706	0.227	0.104
APP Metabolism					
Autophagy					
Cell Cycle	-0.00903	0.184	-0.0919	0.243	0.00263
DNA Repair					
Endolysosome					
Epigenetic	0.163	0.246	0.169	0.26	0.194
Immune Response	0.0135	0.197	-0.0852	0.0581	-0.00328
Lipid Metabolism	0.177	0.419	0.0913	0.126	0.0624
Metal Binding and Homeostasis	0.13	0.328	0.131	0.0667	-0.0652
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.128	0.202	0.0766	0.204	0.114
RNA Spliceosome					
Structural Stabilization	0.0695	0.144	0.0164	0.208	0.106
Synapse	0.0766	0.185	-0.0126	0.11	0.0388
Tau Homeostasis					
Vasculature	0.0652	0.0754	-0.0538	0.384	0.176
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Amphetamine addiction

		Ampn	iciaiiiiic auc	JICHOH	
Apoptosis	-0.216	-0.0539	0.0169	-0.152	-0.183
APP Metabolism					
Autophagy					
Cell Cycle	-0.224	0.0348	-0.0774	-0.137	-0.165
DNA Repair					
Endolysosome	-0.117	0.274	0.136	-0.264	-0.135
Epigenetic	-0.0351	0.152	0.127	-0.00155	-0.0223
Immune Response	-0.208	0.0857	-0.0163	-0.301	-0.244
Lipid Metabolism	0.00654	0.348	0.0335	-0.0884	-0.119
Metal Binding and Homeostasis	-0.0871	0.123	0.0215	-0.134	-0.146
Mitochondrial Metabolism	-0.105	-0.0854	-0.186	-0.151	-0.162
Myelination					
Oxidative Stress					
Proteostasis	0.0565	0.166	0.089	0.0769	0.00828
RNA Spliceosome					
Structural Stabilization	-0.212	-0.106	-0.107	-0.0821	-0.0645
Synapse	-0.0555	0.0839	-0.0103	-0.057	-0.0759
Tau Homeostasis					
Vasculature	-0.113	0.116	0.0341	-0.101	-0.0863
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	Morphine addiction					
Apoptosis						
APP Metabolism						
Autophagy						
Cell Cycle						
DNA Repair						
Endolysosome	0.155	0.332	0.316	0.133	0.0435	
Epigenetic						
Immune Response	0.056	0.185	0.13	-0.159	-0.137	
Lipid Metabolism	0.0996	0.328	0.226	-0.156	-0.149	
Metal Binding and Homeostasis	0.0683	0.301	0.201	-0.123	-0.124	
Mitochondrial Metabolism						
Myelination						
Oxidative Stress						
Proteostasis	0.04	0.265	0.134	-0.00969	-0.111	
RNA Spliceosome						
Structural Stabilization	0.024	0.331	0.138	-0.0704	-0.122	
Synapse	-0.00574	0.257	0.13	-0.181	-0.102	
Tau Homeostasis						
Vasculature	0.128	0.298	0.16	-0.055	-0.00547	
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS	

Nicotine addiction



			Alcoholism	
Apoptosis	-0.0775	-0.13	-0.134	
APP Metabolism				

Autophagy

Cell Cycle -0.105 -0.0864

DNA Repair

Endolysosome

Epigenetic

Immune Response

Myelination

Proteostasis

Synapse

Vasculature

Oxidative Stress

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

Metal Binding and Homeostasis

Mitochondrial Metabolism

Lipid Metabolism

-0.05450.0423

-0.106

0.0138

-0.0299

0.0542

-0.0814

-0.00801

0.0236

WT/WT

0.0335 -0.0222 0.155

0.0196

0.0747

0.125

0.137

0.02

0.0412

0.0338

-0.0374

0.0607

0.0722

WT/FC

-0.0396

-0.103

-0.0397

-0.0788

FC/FC

0.0258 -0.0484-0.0817 -0.09370.00138 -0.0744-0.0619

-0.144

0.0908 0.248 0.0562 0.217 0.114 0.0802 0.205 0.245

0.179

0.122

0.15

WT/VS

0.125

0.223

0.0442

0.0599

-0.105

0.184

-0.0174

0.097

0.0263

-0.00295

0.0557 0.133 0.0485 0.0234 0.112 VS/VS

Lipid and atherosclerosis

		•			
Apoptosis	0.13	0.171	0.158	0.175	0.074
APP Metabolism	0.128	0.217	0.139	-0.0325	0.0161
Autophagy	0.054	0.16	0.135	0.159	0.0401
Cell Cycle	-0.0826	0.00693	-0.0286	0.219	0.045
DNA Repair	0.139	0.132	0.145	0.217	0.156
Endolysosome	0.0465	0.0815	0.054	0.236	0.0692
Epigenetic	0.14	0.227	0.155	0.224	0.122
Immune Response	0.0798	0.0862	0.0694	0.171	0.101
Lipid Metabolism	0.14	0.122	0.146	0.17	0.113
Metal Binding and Homeostasis	0.0986	0.19	0.153	0.0693	0.00165
Mitochondrial Metabolism	0.171	0.2	0.213	0.162	0.0958
Myelination	0.108	0.0994	0.12	0.395	0.203
Oxidative Stress	0.1	0.219	0.136	0.276	0.134
Proteostasis	0.0961	0.17	0.146	0.191	0.0999
RNA Spliceosome					
Structural Stabilization	0.075	0.127	0.121	0.185	0.0853
Synapse	0.0243	0.0943	0.0735	0.111	-0.00536
Tau Homeostasis					
Vasculature	0.0775	0.164	0.143	0.16	0.0457
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Fluid shear stress and atherosclerosis

Apoptosis	0.11	0.196	0.204	0.177	0.0289
APP Metabolism					
Autophagy	0.00223	0.112	0.0788	0.167	-0.055
Cell Cycle	-0.0188	0.0331	0.0633	0.186	0.08
DNA Repair	0.0996	0.106	0.0708	0.165	0.0966
Endolysosome	0.104	0.0496	0.0896	0.276	0.0918
Epigenetic	0.102	0.262	0.182	0.175	0.0883
Immune Response	0.0622	0.082	0.084	0.201	0.0888
Lipid Metabolism	0.135	0.153	0.189	0.171	0.0874
Metal Binding and Homeostasis	0.00323	0.124	0.0991	0.135	0.00325
Mitochondrial Metabolism	0.0719	0.0784	0.126	0.255	0.0529
Myelination	0.0848	0.0679	0.0711	0.522	0.265
Oxidative Stress	-0.0094	0.067	-0.0135	0.268	0.0548
Proteostasis	0.0481	0.0335	0.0417	0.308	0.132
RNA Spliceosome					
Structural Stabilization	0.0599	0.094	0.0652	0.201	0.0928
Synapse	0.0515	0.108	0.106	0.216	0.0301
Tau Homeostasis					
Vasculature	0.00323	0.0871	0.0694	0.121	0.000999
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Hypertrophic cardiomyopathy

		• •	-		
Apoptosis	0.174	0.314	0.232	0.0136	-0.0675
APP Metabolism					
Autophagy	0.186	0.351	0.325	-0.0453	-0.246
Cell Cycle					
DNA Repair					
Endolysosome	0.208	0.241	0.154	0.137	0.203
Epigenetic	0.23	0.31	0.25	0.168	0.0435
Immune Response	0.203	0.28	0.259	-0.0215	-0.00637
Lipid Metabolism	0.078	0.169	0.196	-0.106	-0.103
Metal Binding and Homeostasis	0.0917	0.238	0.235	-0.22	-0.109
Mitochondrial Metabolism	0.219	0.439	0.329	-0.0826	-0.122
Myelination					
Oxidative Stress					
Proteostasis	0.102	0.216	0.201	-0.115	-0.119
RNA Spliceosome					
Structural Stabilization	0.0565	0.118	0.0844	-0.0402	-0.0723
Synapse	0.123	0.229	0.226	-0.117	-0.0728
Tau Homeostasis					
Vasculature	0.0457	0.183	0.106	-0.146	-0.121
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Arrhytł	nmogenic riç	ght ventricula	ar cardiomy	opathy
0.0574	0.321	0.0706	-0.0454	-0.167
0.146	0.385	0.0805	0.162	0.0605
0.134	0.305	0.216	-0.122	-0.0832
0.108	0.283	0.284	-0.162	-0.0937
0.125	0.327	0.276	-0.206	-0.11
0.112	0.257	0.168	-0.0736	-0.0951
0.131	0.224	0.208	-0.0271	-0.0895
0.104	0.236	0.191	-0.101	-0.0862
0.123	0.346	0.254	-0.149	-0.162
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	0.146 0.134 0.108 0.125 0.112 0.131 0.104	0.0574 0.321 0.146 0.385 0.134 0.305 0.108 0.283 0.125 0.327 0.112 0.257 0.131 0.224 0.104 0.236 0.123 0.346	0.0574 0.321 0.0706 0.146 0.385 0.0805 0.134 0.305 0.216 0.108 0.283 0.284 0.125 0.327 0.276 0.112 0.257 0.168 0.131 0.224 0.208 0.104 0.236 0.191 0.123 0.346 0.254	0.146 0.385 0.0805 0.162 0.134 0.305 0.216 -0.122 0.108 0.283 0.284 -0.162 0.125 0.327 0.276 -0.206 0.112 0.257 0.168 -0.0736 0.131 0.224 0.208 -0.0271 0.104 0.236 0.191 -0.101 0.123 0.346 0.254 -0.149

Dilated cardiomyopathy

		Dilate	a cardiomyc	ppatny	
Apoptosis	0.209	0.318	0.189	0.0863	0.0109
APP Metabolism					
Autophagy	0.185	0.237	0.171	0.0602	-0.182
Cell Cycle					
DNA Repair					
Endolysosome	0.186	0.31	0.164	0.0967	0.133
Epigenetic					
Immune Response	0.224	0.308	0.24	-0.0242	-0.0194
Lipid Metabolism	0.133	0.303	0.225	-0.117	-0.102
Metal Binding and Homeostasis	0.118	0.268	0.211	-0.16	-0.0801
Mitochondrial Metabolism	0.317	0.518	0.22	-0.0594	-0.0374
Myelination					
Oxidative Stress					
Proteostasis	0.0954	0.185	0.0745	-0.0465	-0.0811
RNA Spliceosome					
Structural Stabilization	0.0579	0.104	0.0578	-0.0238	-0.062
Synapse	0.116	0.24	0.184	-0.117	-0.0602
Tau Homeostasis					
Vasculature	0.037	0.193	0.0716	-0.161	-0.119
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Diabetic cardiomyopathy

		Biabo	ilo caraioiiiy	opaniy	
Apoptosis	0.0736	0.0958	0.1	0.183	0.000249
APP Metabolism	0.188	0.473	0.322	0.0706	-0.01
Autophagy	0.0188	0.0612	0.0688	0.132	-0.0109
Cell Cycle	0.0994	0.171	0.238	0.0949	0.0382
DNA Repair					
Endolysosome	-0.0132	-0.0182	-0.0148	0.156	-0.0215
Epigenetic	0.216	0.454	0.416	0.019	-0.0317
Immune Response	0.0879	0.184	0.18	0.0679	-0.000406
Lipid Metabolism	0.137	0.166	0.175	0.174	0.00563
Metal Binding and Homeostasis	-0.0738	-0.147	-0.0908	0.109	-0.0109
Mitochondrial Metabolism	-0.35	-0.538	-0.517	0.107	-0.0577
Myelination					
Oxidative Stress	-0.0836	-0.127	-0.113	0.189	-0.015
Proteostasis	0.0524	0.0478	0.0649	0.132	0.0362
RNA Spliceosome					
Structural Stabilization	0.174	0.157	0.221	0.147	0.0861
Synapse	0.0769	0.105	0.136	0.0514	-0.0218
Tau Homeostasis					
Vasculature	0.209	0.289	0.285	0.0453	0.000292
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Apoptosis	-0.0344	-0.0934	-0.132	-0.0504
APP Metabolism				

, thousand	0.0011	0.0001	0.102	0.000
APP Metabolism				
Autophagy	-0.0546	-0.0985	0.0283	0.0641
Cell Cycle				

-0.016

-0.0248

0.0913

0.0616

-0.00108

0.0454

0.06

-0.0146

WT/WT

Endolysosome

Immune Response

Metal Binding and Homeostasis

Mitochondrial Metabolism

Lipid Metabolism

Oxidative Stress

RNA Spliceosome

Tau Homeostasis

Structural Stabilization

Epigenetic

Myelination

Proteostasis

Synapse

Vasculature

0.0481

-0.0143

0.11

0.0707

-0.00251

0.0944

0.1

0.0459

WT/FC

Viral myocarditis

-0.0857

-0.026

0.159

0.155

0.00132

0.0376

0.112

0.0383

FC/FC

0.15

0.0347

-0.0483

-0.0128

-0.0458

-0.0223

-0.0147

0.00168

WT/VS

0.00749

-0.0549

0.0368

0.0239

-0.015

0.0169

-0.0774

-0.118

-0.075

-0.129

VS/VS

Type II diabetes mellitus

Apoptosis	0.123	0.341	0.339	0.0139	-0.121
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic	0.101	0.368	0.331	0.0354	-0.0871
Immune Response	0.167	0.31	0.346	-0.0158	-0.055
Lipid Metabolism	0.222	0.414	0.409	-0.013	-0.0479
Metal Binding and Homeostasis	0.188	0.379	0.402	-0.178	-0.0209
Mitochondrial Metabolism	-0.0363	0.219	0.0781	-0.176	-0.246
Myelination					
Oxidative Stress					
Proteostasis	0.108	0.191	0.145	0.136	0.013
RNA Spliceosome					
Structural Stabilization	0.216	0.431	0.394	0.105	-0.00933
Synapse	0.238	0.467	0.512	-0.146	-0.0612
Tau Homeostasis					
Vasculature	0.241	0.411	0.416	-0.0772	-0.0807
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

		Type I	diabetes m	ellitus	
Apoptosis	-0.0469	-0.197	-0.21	0.0157	-0.0471
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome	-0.0693	-0.0428	-0.117	0.125	0.0211
Epigenetic					
Immune Response	-0.0516	-0.0418	-0.152	0.0533	-0.00744
Lipid Metabolism	-0.0556	-0.105	-0.15	-0.0445	-0.108
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	-0.0896	-0.105	-0.162	-0.066	-0.141
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

	P	Maturity onse	et diabetes	of the young	I
Apoptosis					
APP Metabolism					
Autophagy					
Cell Cycle					
DNA Repair					
Endolysosome					
Epigenetic	0.144	0.0916	0.135	0.221	0.0679
Immune Response					
Lipid Metabolism					
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis					
RNA Spliceosome					
Structural Stabilization					
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Alcoholic liver disease

0.138	0.248	0.181	0.113	-0.0114		
0.0541	0.296	0.235	-0.0834	-0.148		
-0.0263	0.14	0.178	0.0204	-0.12		
0.0599	0.0763	0.0364	-0.128	-0.0833		
0.131	0.106	0.119	0.247	0.045		
0.129	0.346	0.215	0.0654	-0.0586		
0.13	0.164	0.112	0.22	0.107		
0.15	0.0975	0.142	0.174	0.0947		
0.145	0.237	0.245	0.0405	-0.0269		
0.134	0.138	0.236	0.0697	0.0664		
0.0351	0.279	0.266	-0.0955	-0.134		
0.133	0.307	0.223	0.0525	-0.0189		
0.173	0.349	0.261	0.124	0.0252		
-2.3e-05	0.0982	0.0548	0.153	0.0317		
0.101	0.153	0.0612	0.173	0.0804		
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS		
	0.0541 -0.0263 0.0599 0.131 0.129 0.13 0.15 0.145 0.134 0.0351 0.133 -2.3e-05	0.0541 0.296 -0.0263 0.14 0.0599 0.0763 0.131 0.106 0.129 0.346 0.13 0.164 0.15 0.0975 0.145 0.237 0.134 0.138 0.0351 0.279 0.133 0.307 0.173 0.349 -2.3e-05 0.0982	0.0541 0.296 0.235 -0.0263 0.14 0.178 0.0599 0.0763 0.0364 0.131 0.106 0.119 0.129 0.346 0.215 0.13 0.164 0.112 0.15 0.0975 0.142 0.145 0.237 0.245 0.134 0.138 0.236 0.0351 0.279 0.266 0.133 0.307 0.223 0.173 0.349 0.261 -2.3e-05 0.0982 0.0548	0.0541 0.296 0.235 -0.0834 -0.0263 0.14 0.178 0.0204 0.0599 0.0763 0.0364 -0.128 0.131 0.106 0.119 0.247 0.129 0.346 0.215 0.0654 0.13 0.164 0.112 0.22 0.15 0.0975 0.142 0.174 0.145 0.237 0.245 0.0405 0.134 0.138 0.236 0.0697 0.0351 0.279 0.266 -0.0955 0.133 0.307 0.223 0.0525 0.173 0.349 0.261 0.124 -2.3e-05 0.0982 0.0548 0.153 0.101 0.153 0.0612 0.173		

Non-alcoh	nolic fatty	liver diseas	e

0.0997	0.135	0.179	0.199	0.0878
0.118	0.189	0.231	0.178	0.0937
0.0122	-0.0378	0.0439	0.272	0.166
-0.0787	-0.109	0.0751	0.194	-0.0157
0.183	0.308	0.233	0.286	0.152
0.12	0.124	0.183	0.237	0.171
0.144	0.146	0.209	0.222	0.159
-0.201	-0.32	-0.294	0.225	0.0751
-0.348	-0.572	-0.538	0.131	-0.0118
-0.267	-0.218	-0.242	0.144	-0.0865
-0.0251	-0.00731	0.00663	0.276	0.126
0.127	0.219	0.289	0.186	0.0558
0.0731	0.0378	0.127	0.233	0.114
0.151	0.214	0.256	0.291	0.148
WT/WT	WT/FC	FC/FC	WT/VS	VS/VS
	0.118 0.0122 -0.0787 0.183 0.12 0.144 -0.201 -0.348 -0.267 -0.0251 0.127 0.0731	0.118 0.189 0.0122 -0.0378 -0.0787 -0.109 0.183 0.308 0.12 0.124 0.144 0.146 -0.201 -0.32 -0.348 -0.572 -0.267 -0.218 -0.0251 -0.00731 0.127 0.219 0.0731 0.0378 0.151 0.214	0.118 0.189 0.231 0.0122 -0.0378 0.0439 -0.0787 -0.109 0.0751 0.183 0.308 0.233 0.12 0.124 0.183 0.144 0.146 0.209 -0.201 -0.32 -0.294 -0.348 -0.572 -0.538 -0.267 -0.218 -0.242 -0.0251 -0.00731 0.00663 0.127 0.219 0.289 0.0731 0.0378 0.127 0.151 0.214 0.256	0.118 0.189 0.231 0.178 0.0122 -0.0378 0.0439 0.272 -0.0787 -0.109 0.0751 0.194 0.183 0.308 0.233 0.286 0.12 0.124 0.183 0.237 0.144 0.146 0.209 0.222 -0.201 -0.32 -0.294 0.225 -0.348 -0.572 -0.538 0.131 -0.267 -0.218 -0.242 0.144 -0.0251 -0.00731 0.00663 0.276 0.127 0.219 0.289 0.186 0.0731 0.0378 0.127 0.233 0.151 0.214 0.256 0.291

Insulin resistance

0.0151

-0.0722

0.107

0.18

0.0799

0.0581

0.0917

0.0721

0.0458

0.0168

0.114

0.0957

-0.0109

0.15

VS/VS

Apoptosis	0.211	0.333	0.298	0.106
APP Metabolism				
Autophagy	0.127	0.372	0.295	-0.103
Cell Cycle	0.209	0.245	0.261	0.13
DNA Repair				
Endolysosome	0.367	0.354	0.464	0.305
Epigenetic	0.159	0.229	0.231	0.0164
Immune Response	0.215	0.352	0.341	0.0774
Lipid Metabolism	0.227	0.3	0.299	0.121
Metal Binding and Homeostasis	0.207	0.272	0.366	0.152
Mitochondrial Metabolism	0.213	0.322	0.295	-0.0198
Myelination				
Oxidative Stress	0.252	0.526	0.299	0.0922
Proteostasis	0.178	0.208	0.225	0.171
RNA Spliceosome				
Structural Stabilization	0.279	0.406	0.388	0.153
Synapse	0.208	0.388	0.334	0.0793
Tau Homeostasis				
Vasculature	0.305	0.448	0.378	0.222
	WT/WT	WT/FC	FC/FC	WT/VS

	AGE-RAG	SE signaling	pathway in	diabetic con	nplications
Apoptosis	0.162	0.232	0.17	0.162	0.111
APP Metabolism					
Autophagy	0.136	0.13	0.183	0.214	0.128
Cell Cycle	0.00138	0.0721	0.0734	0.138	0.0716
DNA Repair	0.0286	0.0952	0.0967	-0.0238	0.0645
Endolysosome	0.0655	0.115	0.0945	0.251	0.0218
Epigenetic	0.137	0.341	0.207	0.0983	0.0279
Immune Response	0.121	0.15	0.108	0.115	0.0786
Lipid Metabolism	0.172	0.201	0.179	0.112	0.0723
Metal Binding and Homeostasis	0.166	0.182	0.167	-0.0306	0.0921
Mitochondrial Metabolism	0.161	0.186	0.247	0.0548	0.0417
Myelination					
Oxidative Stress	0.132	0.237	0.136	0.214	0.0912
Proteostasis	0.191	0.221	0.218	0.177	0.18
RNA Spliceosome					
Structural Stabilization	0.246	0.254	0.22	0.171	0.153
Synapse	0.15	0.155	0.167	0.0997	0.0691
Tau Homeostasis					
Vasculature	0.2	0.191	0.181	0.123	0.113
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Cushing syndrome

APP Metabolism Autophagy Cell Cycle
Cell Cycle -0.0412 0.173 0.00643 -0.0189 -0.05 DNA Repair -0.0403 0.157 0.0231 -0.103 -0.10 Endolysosome 0.0869 0.179 0.0564 0.153 0.014 Epigenetic 0.0709 0.24 0.0769 -0.0226 0.021
DNA Repair -0.0403 0.157 0.0231 -0.103 -0.10 Endolysosome 0.0869 0.179 0.0564 0.153 0.014 Epigenetic 0.0709 0.24 0.0769 -0.0226 0.021
Endolysosome 0.0869 0.179 0.0564 0.153 0.014 Epigenetic 0.0709 0.24 0.0769 -0.0226 0.021
Epigenetic 0.0709
Immune Response 0.0675 0.187 0.0176 0.019 0.010
Lipid Metabolism 0.133 0.292 0.158 0.0187 -0.02
Metal Binding and Homeostasis 0.156 0.378 0.189 0.00991 -0.008
Mitochondrial Metabolism 0.0283 0.12 0.0758 -0.0946 -0.09
Myelination
Oxidative Stress 0.148 0.234 0.143 0.103 -0.006
Proteostasis 0.122 0.231 0.107 0.0826 0.01
RNA Spliceosome
Structural Stabilization 0.158 0.277 0.141 0.114 0.039
Synapse 0.131 0.273 0.126 0.0332 0.027
Tau Homeostasis
Vasculature 0.131 0.303 0.103 0.109 0.079
WT/WT WT/FC FC/FC WT/VS VS/

EGFR tyrosine kinase inhibitor resistance

Apoptosis	0.205	0.351	0.241	0.0993	0.0361
APP Metabolism					
Autophagy	0.238	0.442	0.301	0.242	0.0945
Cell Cycle	0.161	0.25	0.144	0.185	0.166
DNA Repair	0.151	0.286	0.218	0.245	0.149
Endolysosome	0.145	0.325	0.194	0.206	0.0654
Epigenetic	0.164	0.326	0.123	0.0797	0.0516
Immune Response	0.196	0.333	0.207	0.104	0.056
Lipid Metabolism	0.23	0.37	0.276	0.0705	0.0435
Metal Binding and Homeostasis	0.2	0.24	0.271	0.0791	0.0513
Mitochondrial Metabolism	0.224	0.345	0.251	0.166	0.118
Myelination	0.359	0.474	0.352	0.259	0.152
Oxidative Stress	0.226	0.387	0.21	0.213	0.124
Proteostasis	0.0938	0.158	0.0736	0.141	0.0697
RNA Spliceosome					
Structural Stabilization	0.207	0.356	0.213	0.148	0.0526
Synapse	0.187	0.349	0.204	0.083	0.0332
Tau Homeostasis					
Vasculature	0.21	0.384	0.22	0.0379	-0.00606
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Platinum drug resistance

Apoptosis APP Metabolism Autophagy Cell Cycle DNA Repair Endolysosome Epigenetic	0.0483 0.185 -0.028 -0.0318 0.0556	0.242 -0.0363 0.039	0.114 0.223 -0.00718 0.0297	0.0798 0.377 0.147 0.0659	0.0317 0.159 0.0699
Autophagy Cell Cycle DNA Repair Endolysosome	-0.028 -0.0318	-0.0363 0.039	-0.00718	0.147	0.0699
Cell Cycle DNA Repair Endolysosome	-0.028 -0.0318	-0.0363 0.039	-0.00718	0.147	0.0699
DNA Repair Endolysosome	-0.0318	0.039			
Endolysosome			0.0297	0.0659	0.0448
· ·	0.0556	0.0461			0.0110
Epigenetic			0.1	0.158	-0.0393
	0.0825	0.208	0.152	0.0901	-0.0103
Immune Response	0.0325	0.0645	0.113	0.113	0.0731
Lipid Metabolism	0.0994	0.0569	0.164	0.188	0.0777
Metal Binding and Homeostasis	0.0252	0.107	0.129	0.00726	-0.0472
Mitochondrial Metabolism	0.106	0.132	0.252	0.288	0.138
Myelination					
Oxidative Stress	0.0397	0.0695	0.131	0.152	0.0509
Proteostasis	0.0556	0.0604	0.0441	0.166	0.137
RNA Spliceosome					
Structural Stabilization	0.25	0.334	0.34	0.239	0.056
Synapse	-0.0298	-0.0361	-0.0234	0.172	0.117
Tau Homeostasis					
Vasculature	0.0685	0.147	0.158	0.0873	-0.0216
,	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Antifolate resistance Apoptosis APP Metabolism Autophagy Cell Cycle

0.283	0.307	0.269	0.208	0
0.329	0.321	0.317	0.182	0.

Epigenetic					
Immune Response	0.283	0.307	0.269	0.208	0.29
Lipid Metabolism	0.329	0.321	0.317	0.182	0.283
Metal Binding and Homeostasis					
Mitochondrial Metabolism					
Myelination					
Oxidative Stress					
Proteostasis	0.117	0.308	0.323	0.099	-0.00142
RNA Spliceosome					
Structural Stabilization	0.307	0.24	0.267	0.256	0.236

Mitochondrial Metabolism Myelination					
Oxidative Stress					
Proteostasis	0.117	0.308	0.323	0.099	-0.00142
RNA Spliceosome					
Structural Stabilization	0.307	0.24	0.267	0.256	0.236
Synapse					
Tau Homeostasis					
Vasculature					
	\ \ /T/\\/T	W/T/FC	FC/FC	\/\T/\/\$	\/\$/\/\$

Proteostasis	0.117	0.308	0.323	0.099	-0.00142
RNA Spliceosome					
Structural Stabilization	0.307	0.24	0.267	0.256	0.236
Synapse					
Tau Homeostasis					
Vasculature					
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS

Endocrine resistance

Apoptosis	0.181	0.361	0.246	0.0767	0.0175
APP Metabolism					
Autophagy	0.204	0.36	0.262	0.302	0.107
Cell Cycle	0.112	0.197	0.131	0.207	0.118
DNA Repair	0.11	0.178	0.109	0.143	0.123
Endolysosome	0.146	0.232	0.119	0.202	0.0536
Epigenetic	0.144	0.433	0.238	0.0115	-0.0405
Immune Response	0.195	0.357	0.211	0.127	0.063
Lipid Metabolism	0.191	0.432	0.266	0.0523	-0.00518
Metal Binding and Homeostasis	0.211	0.314	0.178	0.123	0.083
Mitochondrial Metabolism	0.17	0.253	0.162	0.213	0.0834
Myelination	0.272	0.337	0.266	0.243	0.159
Oxidative Stress	0.154	0.333	0.177	0.332	0.118
Proteostasis	0.141	0.243	0.112	0.229	0.107
RNA Spliceosome					
Structural Stabilization	0.183	0.337	0.176	0.171	0.0753
Synapse	0.233	0.363	0.259	0.0858	0.0415
Tau Homeostasis					
Vasculature	0.188	0.402	0.245	0.0712	-0.00925
	WT/WT	WT/FC	FC/FC	WT/VS	VS/VS