Mark R Cookson

List of Publications by Citations

282 papers	33,821 citations	86 h-index	181 g-index
323 ext. papers	39,175 ext. citations	8.7 avg, IF	7.12 L-index

#	Paper	IF	Citations
282	alpha-Synuclein locus triplication causes Parkinson's disease. *Science*, **2003**, 302, 841	33.3	3252
281	Guidelines for the use and interpretation of assays for monitoring autophagy. *Autophagy*, **2012**, 8, 445-544	10.2	2783
280	PINK1 is selectively stabilized on impaired mitochondria to activate Parkin. *PLoS Biology*, **2010**, 8, e1000298	9.8	1887
279	Genome-wide association study reveals genetic risk underlying Parkinson's disease. *Nature Genetics* , **2009**, 41, 1308-12	36.3	1469
278	The Parkinson's disease protein DJ-1 is neuroprotective due to cysteine-sulfinic acid-driven mitochondrial localization. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 9103-8	11.5	888
277	Abundant quantitative trait loci exist for DNA methylation and gene expression in human brain. *PLoS Genetics*, **2010**, 6, e1000952	6	612
276	Kinase activity is required for the toxic effects of mutant LRRK2/dardarin. *Neurobiology of Disease*, **2006**, 23, 329-41	7.5	608
275	Common genetic variants influence human subcortical brain structures. *Nature*, **2015**, 520, 224-9	50.4	601
274	Identification of novel risk loci, causal insights, and heritable risk for Parkinson's disease: a meta-analysis of genome-wide association studies. *Lancet Neurology, The*, **2019**, 18, 1091-1102	24.1	562
273	The biochemistry of Parkinson's disease. *Annual Review of Biochemistry*, **2005**, 74, 29-52	29.1	536
272	Parkin protects against the toxicity associated with mutant alpha-synuclein: proteasome dysfunction selectively affects catecholaminergic neurons. *Neuron*, **2002**, 36, 1007-19	13.9	506
271	An in vitro model of Parkinson's disease: linking mitochondrial impairment to altered alpha-synuclein metabolism and oxidative damage. *Journal of Neuroscience*, **2002**, 22, 7006-15	6.6	490
270	Genetic variability in the regulation of gene expression in ten regions of the human brain. *Nature Neuroscience*, **2014**, 17, 1418-1428	25.5	483
269	Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). *Autophagy*, **2021**, 17, 1-382	10.2	440
268	Alpha-synuclein implicated in Parkinson's disease is present in extracellular biological fluids, including human plasma. *FASEB Journal*, **2003**, 17, 1945-7	0.9	436
267	The role of leucine-rich repeat kinase 2 (LRRK2) in Parkinson's disease. *Nature Reviews Neuroscience* , **2010**, 11, 791-7	13.5	400
266	Identification of common variants influencing risk of the tauopathy progressive supranuclear palsy. *Nature Genetics*, **2011**, 43, 699-705	36.3	386

265	Evidence for natural antisense transcript-mediated inhibition of microRNA function. *Genome Biology*, **2010**, 11, R56	18.3	375
264	A soluble □synuclein construct forms a dynamic tetramer. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 17797-802	11.5	354
263	DJ-1 acts in parallel to the PINK1/parkin pathway to control mitochondrial function and autophagy. *Human Molecular Genetics*, **2011**, 20, 40-50	5.6	346
262	The expression of DJ-1 (PARK7) in normal human CNS and idiopathic Parkinson's disease. *Brain*, **2004**, 127, 420-30	11.2	341
261	Mutations in the Matrin 3 gene cause familial amyotrophic lateral sclerosis. *Nature Neuroscience*, **2014**, 17, 664-666	25.5	319
260	Distinct DNA methylation changes highly correlated with chronological age in the human brain. *Human Molecular Genetics*, **2011**, 20, 1164-72	5.6	312
259	Mutations in PTEN-induced putative kinase 1 associated with recessive parkinsonism have differential effects on protein stability. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 5703-8	11.5	303
258	Unbiased screen for interactors of leucine-rich repeat kinase 2 supports a common pathway for sporadic and familial Parkinson disease. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 2626-31	11.5	282
257	Mitochondrial function and morphology are impaired in parkin-mutant fibroblasts. *Annals of Neurology*, **2008**, 64, 555-65	9.4	280
256	Intersecting pathways to neurodegeneration in Parkinson's disease: effects of the pesticide rotenone on DJ-1, alpha-synuclein, and the ubiquitin-proteasome system. *Neurobiology of Disease*, **2006**, 22, 404-20	7.5	262
255	alpha-Synuclein and neuronal cell death. *Molecular Neurodegeneration*, **2009**, 4, 9	19	257
254	Genetics of Parkinson's disease and parkinsonism. *Annals of Neurology*, **2006**, 60, 389-98	9.4	252
253	Genome-wide association study of obsessive-compulsive disorder. *Molecular Psychiatry*, **2013**, 18, 788-98	15.1	244
252	Pink1 forms a multiprotein complex with Miro and Milton, linking Pink1 function to mitochondrial trafficking. *Biochemistry*, **2009**, 48, 2045-52	3.2	238
251	The Parkinson disease-associated leucine-rich repeat kinase 2 (LRRK2) is a dimer that undergoes intramolecular autophosphorylation. *Journal of Biological Chemistry*, **2008**, 283, 16906-14	5.4	236
250	Lysosomal impairment in Parkinson's disease. *Movement Disorders*, **2013**, 28, 725-32	7	228
249	Deletion at ITPR1 underlies ataxia in mice and spinocerebellar ataxia 15 in humans. *PLoS Genetics*, **2007**, 3, e108	6	221
248	The R1441C mutation of LRRK2 disrupts GTP hydrolysis. *Biochemical and Biophysical Research Communications*, **2007**, 357, 668-71	3.4	219

247	Major Shifts in Glial Regional Identity Are a Transcriptional Hallmark of Human Brain Aging. *Cell Reports*, **2017**, 18, 557-570	10.6	217
246	Leucine-rich repeat kinase 2 mutations and Parkinson's disease: three questions. *ASN Neuro*, **2009**, 1,	5.3	216
245	Formation of a stabilized cysteine sulfinic acid is critical for the mitochondrial function of the parkinsonism protein DJ-1. *Journal of Biological Chemistry*, **2009**, 284, 6476-85	5.4	210
244	Excessive burden of lysosomal storage disorder gene variants in Parkinson's disease. *Brain*, **2017**, 140, 3191-3203	11.2	209
243	A two-stage meta-analysis identifies several new loci for Parkinson's disease. *PLoS Genetics*, **2011**, 7, e1002142	6	209
242	Cytoplasmic Pink1 activity protects neurons from dopaminergic neurotoxin MPTP. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 1716-21	11.5	206
241	Mitochondrial dysfunction in a cell culture model of familial amyotrophic lateral sclerosis. *Brain*, **2002**, 125, 1522-33	11.2	205
240	Structure of the ROC domain from the Parkinson's disease-associated leucine-rich repeat kinase 2 reveals a dimeric GTPase. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 1499-504	11.5	198
239	LRRK2 modulates vulnerability to mitochondrial dysfunction in Caenorhabditis elegans. *Journal of Neuroscience*, **2009**, 29, 9210-8	6.6	196
238	Converging pathways in neurodegeneration, from genetics to mechanisms. *Nature Neuroscience*, **2018**, 21, 1300-1309	25.5	183
237	L166P mutant DJ-1, causative for recessive Parkinson's disease, is degraded through the ubiquitin-proteasome system. *Journal of Biological Chemistry*, **2003**, 278, 36588-95	5.4	181
236	Novel genetic loci associated with hippocampal volume. *Nature Communications*, **2017**, 8, 13624	17.4	173
235	RNA binding activity of the recessive parkinsonism protein DJ-1 supports involvement in multiple cellular pathways. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 10244-9	11.5	171
234	DYT16, a novel young-onset dystonia-parkinsonism disorder: identification of a segregating mutation in the stress-response protein PRKRA. *Lancet Neurology, The*, **2008**, 7, 207-15	24.1	159
233	The chaperone activity of heat shock protein 90 is critical for maintaining the stability of leucine-rich repeat kinase 2. *Journal of Neuroscience*, **2008**, 28, 3384-91	6.6	158
232	Oxidative stress and motor neurone disease. *Brain Pathology*, **1999**, 9, 165-86	6	156
231	Mitochondrial alterations in PINK1 deficient cells are influenced by calcineurin-dependent dephosphorylation of dynamin-related protein 1. *PLoS ONE*, **2009**, 4, e5701	3.7	150
230	Novel genetic loci underlying human intracranial volume identified through genome-wide association. *Nature Neuroscience*, **2016**, 19, 1569-1582	25.5	147

229	A strategy for designing inhibitors of alpha-synuclein aggregation and toxicity as a novel treatment for Parkinson's disease and related disorders. *FASEB Journal*, **2004**, 18, 1315-7	0.9	146
228	LRRK2 phosphorylates membrane-bound Rabs and is activated by GTP-bound Rab7L1 to promote recruitment to the trans-Golgi network. *Human Molecular Genetics*, **2018**, 27, 385-395	5.6	143
227	Cell systems and the toxic mechanism(s) of alpha-synuclein. *Experimental Neurology*, **2008**, 209, 5-11	5.7	141
226	Caspase-1 causes truncation and aggregation of the Parkinson's disease-associated protein α-synuclein. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 9587-92	11.5	139
225	Parkinson's disease: insights from pathways. *Human Molecular Genetics*, **2010**, 19, R21-7	5.6	137
224	MAPT expression and splicing is differentially regulated by brain region: relation to genotype and implication for tauopathies. *Human Molecular Genetics*, **2012**, 21, 4094-103	5.6	134
223	Metabolic activity determines efficacy of macroautophagic clearance of pathological oligomeric alpha-synuclein. *American Journal of Pathology*, **2009**, 175, 736-47	5.8	127
222	The Parkinson's disease kinase LRRK2 autophosphorylates its GTPase domain at multiple sites. *Biochemical and Biophysical Research Communications*, **2009**, 389, 449-54	3.4	125
221	Evolutionary and functional relationships within the DJ1 superfamily. *BMC Evolutionary Biology*, **2004**, 4, 6	3	120
220	DJ-1 regulation of mitochondrial function and autophagy through oxidative stress. *Autophagy*, **2011**, 7, 531-2	10.2	118
219	Reelin and stk25 have opposing roles in neuronal polarization and dendritic Golgi deployment. *Cell*, **2010**, 143, 826-36	56.2	117
218	Co-ordinate transcriptional regulation of dopamine synthesis genes by alpha-synuclein in human neuroblastoma cell lines. *Journal of Neurochemistry*, **2003**, 85, 957-68	6	116
217	Mutant LRRK2 toxicity in neurons depends on LRRK2 levels and synuclein but not kinase activity or inclusion bodies. *Journal of Neuroscience*, **2014**, 34, 418-33	6.6	115
216	Parkinsonism due to mutations in PINK1, parkin, and DJ-1 and oxidative stress and mitochondrial pathways. *Cold Spring Harbor Perspectives in Medicine*, **2012**, 2, a009415	5.4	111
215	RING finger 1 mutations in Parkin produce altered localization of the protein. *Human Molecular Genetics*, **2003**, 12, 2957-65	5.6	111
214	Genome-wide screen identifies rs646776 near sortilin as a regulator of progranulin levels in human plasma. *American Journal of Human Genetics*, **2010**, 87, 890-7	11	110
213	Identification and functional characterization of a novel R621C mutation in the synphilin-1 gene in Parkinson's disease. *Human Molecular Genetics*, **2003**, 12, 1223-31	5.6	110
212	Emerging pathways in genetic Parkinson's disease: Potential role of ceramide metabolism in Lewy body disease. *FEBS Journal*, **2008**, 275, 5767-73	5.7	109

211	mRNA expression, splicing and editing in the embryonic and adult mouse cerebral cortex. *Nature Neuroscience*, **2013**, 16, 499-506	25.5	107
210	LRRK2 at the interface of autophagosomes, endosomes and lysosomes. *Molecular Neurodegeneration*, **2016**, 11, 73	19	107
209	Membrane-associated farnesylated UCH-L1 promotes alpha-synuclein neurotoxicity and is a therapeutic target for Parkinson's disease. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 4635-40	11.5	102
208	Cross-disorder genome-wide analyses suggest a complex genetic relationship between Tourette's syndrome and OCD. *American Journal of Psychiatry*, **2015**, 172, 82-93	11.9	101
207	Insight into the mode of action of the LRRK2 Y1699C pathogenic mutant. *Journal of Neurochemistry* , **2011**, 116, 304-15	6	101
206	Integration of GWAS SNPs and tissue specific expression profiling reveal discrete eQTLs for human traits in blood and brain. *Neurobiology of Disease*, **2012**, 47, 20-8	7.5	100
205	A direct interaction between leucine-rich repeat kinase 2 and specific β-tubulin isoforms regulates tubulin acetylation. *Journal of Biological Chemistry*, **2014**, 289, 895-908	5.4	98
204	The expression of the glial glutamate transporter protein EAAT2 in motor neuron disease: an immunohistochemical study. *European Journal of Neuroscience*, **1998**, 10, 2481-9	3.5	97
203	A pathway-based analysis provides additional support for an immune-related genetic susceptibility to Parkinson's disease. *Human Molecular Genetics*, **2013**, 22, 1039-49	5.6	96
202	Mitochondria and dopamine: new insights into recessive parkinsonism. *Neuron*, **2004**, 43, 301-4	13.9	94
201	Development and characterisation of a glutamate-sensitive motor neurone cell line. *Journal of Neurochemistry*, **2000**, 74, 1895-902	6	92
200	Age-associated miRNA alterations in skeletal muscle from rhesus monkeys reversed by caloric restriction. *Aging*, **2013**, 5, 692-703	5.6	91
199	Parkinson disease-associated mutation R1441H in LRRK2 prolongs the "active state" of its GTPase domain. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 4055-60	11.5	88
198	LRRK2 Pathways Leading to Neurodegeneration. *Current Neurology and Neuroscience Reports*, **2015**, 15, 42	6.6	87
197	The G2385R variant of leucine-rich repeat kinase 2 associated with Parkinson's disease is a partial loss-of-function mutation. *Biochemical Journal*, **2012**, 446, 99-111	3.8	87
196	Analysis of the cytosolic proteome in a cell culture model of familial amyotrophic lateral sclerosis reveals alterations to the proteasome, antioxidant defenses, and nitric oxide synthetic pathways. *Journal of Biological Chemistry*, **2003**, 278, 6371-83	5.4	85
195	Genes and parkinsonism. *Lancet Neurology, The*, **2003**, 2, 221-8	24.1	85
194	Tyrosinase exacerbates dopamine toxicity but is not genetically associated with Parkinson's disease. *Journal of Neurochemistry*, **2005**, 93, 246-56	6	84

193	LRRK2 promotes the activation of NLRC4 inflammasome during Typhimurium infection. *Journal of Experimental Medicine*, **2017**, 214, 3051-3066	16.6	83
192	MKK6 binds and regulates expression of Parkinson's disease-related protein LRRK2. *Journal of Neurochemistry*, **2010**, 112, 1593-604	6	83
191	Pathways to Parkinsonism. *Neuron*, **2003**, 37, 7-10	13.9	83
190	LRRK2 links genetic and sporadic Parkinson's disease. *Biochemical Society Transactions*, **2019**, 47, 651-661	5.1	82
189	LRRK2 kinase activity is dependent on LRRK2 GTP binding capacity but independent of LRRK2 GTP binding. *PLoS ONE*, **2011**, 6, e23207	3.7	80
188	Peroxynitrite and hydrogen peroxide induced cell death in the NSC34 neuroblastoma x spinal cord cell line: role of poly (ADP-ribose) polymerase. *Journal of Neurochemistry*, **1998**, 70, 501-8	6	78
187	Biochemical characterization of highly purified leucine-rich repeat kinases 1 and 2 demonstrates formation of homodimers. *PLoS ONE*, **2012**, 7, e43472	3.7	78
186	The Parkinson's disease associated LRRK2 exhibits weaker in vitro phosphorylation of 4E-BP compared to autophosphorylation. *PLoS ONE*, **2010**, 5, e8730	3.7	77
185	Phosphorylation of LRRK2 by casein kinase 1α regulates trans-Golgi clustering via differential interaction with ARHGEF7. *Nature Communications*, **2014**, 5, 5827	17.4	76
184	Identification of protein phosphatase 1 as a regulator of the LRRK2 phosphorylation cycle. *Biochemical Journal*, **2013**, 456, 119-28	3.8	76
183	Effects of DJ-1 mutations and polymorphisms on protein stability and subcellular localization. *Molecular Brain Research*, **2005**, 134, 76-83		75
182	Mitochondrial quality control and dynamics in Parkinson's disease. *Antioxidants and Redox Signaling*, **2012**, 16, 869-82	8.4	74
181	Mutations in LRRK2/dardarin associated with Parkinson disease are more toxic than equivalent mutations in the homologous kinase LRRK1. *Journal of Neurochemistry*, **2007**, 102, 93-102	6	72
180	Finding useful biomarkers for Parkinson's disease. *Science Translational Medicine*, **2018**, 10,	17.5	69
179	Genetic modifiers of risk and age at onset in GBA associated Parkinson's disease and Lewy body dementia. *Brain*, **2020**, 143, 234-248	11.2	69
178	Hexokinase activity is required for recruitment of parkin to depolarized mitochondria. *Human Molecular Genetics*, **2014**, 23, 145-56	5.6	68
177	DJ-1, PINK1, and their effects on mitochondrial pathways. *Movement Disorders*, **2010**, 25 Suppl 1, S44-8	7	67
176	Glial phagocytic clearance in Parkinson's disease. *Molecular Neurodegeneration*, **2019**, 14, 16	19	66

175	FUS mutations in sporadic amyotrophic lateral sclerosis. *Neurobiology of Aging*, **2011**, 32, 550.e1-4	5.6	64
174	Amyotrophic lateral sclerosis 2-deficiency leads to neuronal degeneration in amyotrophic lateral sclerosis through altered AMPA receptor trafficking. *Journal of Neuroscience*, **2006**, 26, 11798-806	6.6	64
173	Genetic neuropathology of Parkinson's disease. *International Journal of Clinical and Experimental Pathology*, **2008**, 1, 217-31	1.4	63
172	Pathways to Parkinsonism Redux: convergent pathobiological mechanisms in genetics of Parkinson's disease. *Human Molecular Genetics*, **2015**, 24, R32-44	5.6	61
171	Analysis of IFT74 as a candidate gene for chromosome 9p-linked ALS-FTD. *BMC Neurology*, **2006**, 6, 44	3.1	61
170	Selective loss of neurofilament expression in Cu/Zn superoxide dismutase (SOD1) linked amyotrophic lateral sclerosis. *Journal of Neurochemistry*, **2002**, 82, 1118-28	6	60
169	Aggregation of -synuclein in brain samples from subjects with glucocerebrosidase mutations. *Molecular Genetics and Metabolism*, **2011**, 104, 185-8	3.7	57
168	Post-transcriptional regulation of mRNA associated with DJ-1 in sporadic Parkinson disease. *Neuroscience Letters*, **2009**, 452, 8-11	3.3	57
167	Mechanisms in dominant parkinsonism: The toxic triangle of LRRK2, alpha-synuclein, and tau. *BioEssays*, **2010**, 32, 227-235	4.1	57
166	The Endosomal-Lysosomal Pathway Is Dysregulated by Expression. *Frontiers in Neuroscience*, **2017**, 11, 702	5.1	56
165	How genetics research in Parkinson's disease is enhancing understanding of the common idiopathic forms of the disease. *Current Opinion in Neurology*, **2005**, 18, 706-11	7.1	56
164	mTOR independent regulation of macroautophagy by Leucine Rich Repeat Kinase 2 via Beclin-1. *Scientific Reports*, **2016**, 6, 35106	4.9	54
163	Transfected synphilin-1 forms cytoplasmic inclusions in HEK293 cells. *Molecular Brain Research*, **2001**, 97, 94-102		53
162	The role of monogenic genes in idiopathic Parkinson's disease. *Neurobiology of Disease*, **2019**, 124, 230-239	7.3	53
161	Genes associated with Parkinson's disease: regulation of autophagy and beyond. *Journal of Neurochemistry*, **2016**, 139 Suppl 1, 91-107	6	50
160	Frequency of Loss of Function Variants in LRRK2 in Parkinson Disease. *JAMA Neurology*, **2018**, 75, 1416-1422	14.2	50
159	Is inhibition of kinase activity the only therapeutic strategy for LRRK2-associated Parkinson's disease?. *BMC Medicine*, **2012**, 10, 20	11.4	50
158	Parkinson disease-associated mutations in LRRK2 cause centrosomal defects via Rab8a phosphorylation. *Molecular Neurodegeneration*, **2018**, 13, 3	19	49

157	Genetic comorbidities in Parkinson's disease. *Human Molecular Genetics*, **2014**, 23, 831-41	5.6	49
156	Glial cell inclusions and the pathogenesis of neurodegenerative diseases. *Neuron Glia Biology*, **2004**, 1, 13-21		48
155	LRRK2 mediates tubulation and vesicle sorting from lysosomes. *Science Advances*, **2020**, 6,	14.3	48
154	Age-associated changes in gene expression in human brain and isolated neurons. *Neurobiology of Aging*, **2013**, 34, 1199-209	5.6	44
153	Leucine-rich repeat kinase 2 interacts with p21-activated kinase 6 to control neurite complexity in mammalian brain. *Journal of Neurochemistry*, **2015**, 135, 1242-56	6	44
152	Expression of PINK1 mRNA in human and rodent brain and in Parkinson's disease. *Brain Research*, **2007**, 1184, 10-6	3.7	44
151	The metalloprotease inhibitor TIMP-3 regulates amyloid precursor protein and apolipoprotein E receptor proteolysis. *Journal of Neuroscience*, **2007**, 27, 10895-905	6.6	44
150	The roles of kinases in familial Parkinson's disease. *Journal of Neuroscience*, **2007**, 27, 11865-8	6.6	43
149	Cu/Zn superoxide dismutase (SOD1) mutations associated with familial amyotrophic lateral sclerosis (ALS) affect cellular free radical release in the presence of oxidative stress. *Amyotrophic Lateral Sclerosis and Other Motor Neuron Disorders: Official Publication of the World Federation of Neurology, Research Group on Motor Neuron Diseases*, **2002**, 3, 75-85		43
148	Heterogeneity of leucine-rich repeat kinase 2 mutations: genetics, mechanisms and therapeutic implications. *Neurotherapeutics*, **2014**, 11, 738-50	6.4	42
147	The endocytic membrane trafficking pathway plays a major role in the risk of Parkinson's disease. *Movement Disorders*, **2019**, 34, 460-468	7	40
146	Initial assessment of the pathogenic mechanisms of the recently identified Alzheimer risk Loci. *Annals of Human Genetics*, **2013**, 77, 85-105	2.2	40
145	Parkin's substrates and the pathways leading to neuronal damage. *NeuroMolecular Medicine*, **2003**, 3, 1-13	4.6	40
144	Variation in tau isoform expression in different brain regions and disease states. *Neurobiology of Aging*, **2013**, 34, 1922.e7-1922.e12	5.6	39
143	Differential protein-protein interactions of LRRK1 and LRRK2 indicate roles in distinct cellular signaling pathways. *Journal of Neurochemistry*, **2014**, 131, 239-50	6	38
142	Resolving the polymorphism-in-probe problem is critical for correct interpretation of expression QTL studies. *Nucleic Acids Research*, **2013**, 41, e88	20.1	38
141	Alpha-synuclein overexpression increases dopamine toxicity in BE2-M17 cells. *BMC Neuroscience*, **2010**, 11, 41	3.2	38
140	Detection of endogenous S1292 LRRK2 autophosphorylation in mouse tissue as a readout for kinase activity. *Npj Parkinson's Disease*, **2018**, 4, 13	9.7	37

139	Proteomic analysis reveals co-ordinated alterations in protein synthesis and degradation pathways in LRRK2 knockout mice. *Human Molecular Genetics*, **2018**, 27, 3257-3271	5.6	37
138	The R1441C mutation alters the folding properties of the ROC domain of LRRK2. *Biochimica Et Biophysica Acta - Molecular Basis of Disease*, **2009**, 1792, 1194-7	6.9	37
137	A comprehensive analysis of SNCA-related genetic risk in sporadic parkinson disease. *Annals of Neurology*, **2018**, 84, 117-129	9.4	33
136	Arsenite stress down-regulates phosphorylation and 14-3-3 binding of leucine-rich repeat kinase 2 (LRRK2), promoting self-association and cellular redistribution. *Journal of Biological Chemistry*, **2014**, 289, 21386-400	5.4	33
135	Parkin deficiency disrupts calcium homeostasis by modulating phospholipase C signalling. *FEBS Journal*, **2009**, 276, 5041-52	5.7	33
134	The expression of the glutamate re-uptake transporter excitatory amino acid transporter 1 (EAAT1) in the normal human CNS and in motor neurone disease: an immunohistochemical study. *Neuroscience*, **2002**, 109, 27-44	3.9	32
133	Cellular functions of LRRK2 implicate vesicular trafficking pathways in Parkinson's disease. *Biochemical Society Transactions*, **2016**, 44, 1603-1610	5.1	32
132	AKT signalling selectively regulates PINK1 mitophagy in SHSY5Y cells and human iPSC-derived neurons. *Scientific Reports*, **2018**, 8, 8855	4.9	31
131	Gene expression in the Parkinson's disease brain. *Brain Research Bulletin*, **2012**, 88, 302-12	3.9	31
130	Cell population-specific expression analysis of human cerebellum. *BMC Genomics*, **2012**, 13, 610	4.5	31
129	Characterisation of a novel NR4A2 mutation in Parkinson's disease brain. *Neuroscience Letters*, **2009**, 457, 75-9	3.3	31
128	Superoxide-induced nitric oxide release from cultured glial cells. *Brain Research*, **2001**, 911, 203-10	3.7	31
127	Transcriptome analysis of LRRK2 knock-out microglia cells reveals alterations of inflammatory- and oxidative stress-related pathways upon treatment with □synuclein fibrils. *Neurobiology of Disease*, **2019**, 129, 67-78	7.5	30
126	RNA-binding proteins implicated in neurodegenerative diseases. *Wiley Interdisciplinary Reviews RNA*, **2017**, 8, e1397	9.3	30
125	PAK6 Phosphorylates 14-3-3□to Regulate Steady State Phosphorylation of LRRK2. *Frontiers in Molecular Neuroscience*, **2017**, 10, 417	6.1	30
124	Hexokinases link DJ-1 to the PINK1/parkin pathway. *Molecular Neurodegeneration*, **2017**, 12, 70	19	29
123	Screening of AP endonuclease as a candidate gene for amyotrophic lateral sclerosis (ALS). *NeuroReport*, **2000**, 11, 1695-7	1.7	29
122	The impact of fraudulent and irreproducible data to the translational research crisis - solutions and implementation. *Journal of Neurochemistry*, **2016**, 139 Suppl 2, 253-270	6	28

121	The DYT6 Dystonia Protein THAP1 Regulates Myelination within the Oligodendrocyte Lineage. *Developmental Cell*, **2017**, 42, 52-67.e4	10.2	28
120	The role of PTEN-induced kinase 1 in mitochondrial dysfunction and dynamics. *International Journal of Biochemistry and Cell Biology*, **2009**, 41, 2025-35	5.6	28
119	The role of Rab GTPases in the pathobiology of Parkinson' disease. *Current Opinion in Cell Biology*, **2019**, 59, 73-80	9	27
118	Penetrance of Parkinson's Disease in LRRK2 p.G2019S Carriers Is Modified by a Polygenic Risk Score. *Movement Disorders*, **2020**, 35, 774-780	7	27
117	Pathogenic LRRK2 mutations do not alter gene expression in cell model systems or human brain tissue. *PLoS ONE*, **2011**, 6, e22489	3.7	27
116	Differential gene expression in a cell culture model of SOD1-related familial motor neurone disease. *Human Molecular Genetics*, **2002**, 11, 2061-75	5.6	27
115	Mechanisms of Mutant LRRK2 Neurodegeneration. *Advances in Neurobiology*, **2017**, 14, 227-239	2.1	26
114	Poly(ADP-ribose) polymerase is found in both the nucleus and cytoplasm of human CNS neurons. *Brain Research*, **1999**, 834, 182-5	3.7	26
113	Kinesin-associated protein 3 (KIFAP3) has no effect on survival in a population-based cohort of ALS patients. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 12335-8	11.5	25
112	Identification and characterization of the human parkin gene promoter. *Journal of Neurochemistry*, **2001**, 78, 1146-52	6	25
111	Molecular mechanism of olesoxime-mediated neuroprotection through targeting □synuclein interaction with mitochondrial VDAC. *Cellular and Molecular Life Sciences*, **2020**, 77, 3611-3626	10.3	25
110	The G2385R risk factor for Parkinson's disease enhances CHIP-dependent intracellular degradation of LRRK2. *Biochemical Journal*, **2017**, 474, 1547-1558	3.8	24
109	The Parkinson's Disease Protein LRRK2 Interacts with the GARP Complex to Promote Retrograde Transport to the trans-Golgi Network. *Cell Reports*, **2020**, 31, 107614	10.6	24
108	DNAJC proteins and pathways to parkinsonism. *FEBS Journal*, **2019**, 286, 3080-3094	5.7	23
107	Comparative Protein Interaction Network Analysis Identifies Shared and Distinct Functions for the Human ROCO Proteins. *Proteomics*, **2018**, 18, e1700444	4.8	23
106	Genetic determinants of survival in progressive supranuclear palsy: a genome-wide association study. *Lancet Neurology, The*, **2021**, 20, 107-116	24.1	23
105	Leucine-rich repeat kinase 2 controls protein kinase A activation state through phosphodiesterase 4. *Journal of Neuroinflammation*, **2018**, 15, 297	10.1	23
104	Transcriptomic profiling of the human brain reveals that altered synaptic gene expression is associated with chronological aging. *Scientific Reports*, **2017**, 7, 16890	4.9	22

103	Role of LRRK2 kinase dysfunction in Parkinson disease. *Expert Reviews in Molecular Medicine*, **2011**, 13, e20	6.7	22
102	Nicotinic receptors in the putamen of patients with dementia with Lewy bodies and Parkinson's disease: relation to changes in alpha-synuclein expression. *Neuroscience Letters*, **2002**, 335, 134-8	3.3	22
101	Downregulation of Pink1 influences mitochondrial fusion-fission machinery and sensitizes to neurotoxins in dopaminergic cells. *NeuroToxicology*, **2014**, 44, 140-8	4.4	21
100	Mutant torsinA interacts with tyrosine hydroxylase in cultured cells. *Neuroscience*, **2009**, 164, 1127-37	3.9	21
99	LRRK2 mediates microglial neurotoxicity via NFATc2 in rodent models of synucleinopathies. *Science Translational Medicine*, **2020**, 12,	17.5	21
98	Analysis of macroautophagy related proteins in G2019S LRRK2 Parkinson's disease brains with Lewy body pathology. *Brain Research*, **2018**, 1701, 75-84	3.7	20
97	Animal models for drug discovery in dystonia. *Expert Opinion on Drug Discovery*, **2008**, 3, 83-97	6.2	20
96	Normal localization of deltaF323-Y328 mutant torsinA in transfected human cells. *Neuroscience Letters*, **2002**, 327, 75-8	3.3	20
95	Large-scale pathway specific polygenic risk and transcriptomic community network analysis identifies novel functional pathways in Parkinson disease. *Acta Neuropathologica*, **2020**, 140, 341-358	14.3	19
94	In Vitro CRISPR/Cas9-Directed Gene Editing to Model LRRK2 G2019S Parkinson's Disease in Common Marmosets. *Scientific Reports*, **2020**, 10, 3447	4.9	19
93	Reduction of PINK1 or DJ-1 impair mitochondrial motility in neurites and alter ER-mitochondria contacts. *Journal of Cellular and Molecular Medicine*, **2018**, 22, 5439-5449	5.6	19
92	14-3-3 proteins are promising LRRK2 interactors. *Biochemical Journal*, **2010**, 430, e5-6	3.8	19
91	The Genetic Architecture of Parkinson Disease in Spain: Characterizing Population-Specific Risk, Differential Haplotype Structures, and Providing Etiologic Insight. *Movement Disorders*, **2019**, 34, 1851-1863	7	18
90	The LRRK2 signalling system. *Cell and Tissue Research*, **2018**, 373, 39-50	4.2	18
89	The function of orthologues of the human Parkinson's disease gene LRRK2 across species: implications for disease modelling in preclinical research. *Biochemical Journal*, **2016**, 473, 221-32	3.8	18
88	Hero versus antihero: the multiple roles of alpha-synuclein in neurodegeneration. *Experimental Neurology*, **2006**, 199, 238-42	5.7	18
87	Genetic analysis of amyotrophic lateral sclerosis identifies contributing pathways and cell types. *Science Advances*, **2021**, 7,	14.3	18
86	Preclinical modeling of chronic inhibition of the Parkinson's disease associated kinase LRRK2 reveals altered function of the endolysosomal system in vivo. *Molecular Neurodegeneration*, **2021**, 16, 17	19	17

85	Identification of Candidate Parkinson Disease Genes by Integrating Genome-Wide Association Study, Expression, and Epigenetic Data Sets. *JAMA Neurology*, **2021**, 78, 464-472	17.2	17
84	Cellular effects of LRRK2 mutations. *Biochemical Society Transactions*, **2012**, 40, 1070-3	5.1	16
83	Neurodegeneration: how does parkin prevent Parkinson's disease?. *Current Biology*, **2003**, 13, R522-4	6.3	16
82	Selective loss of neurofilament proteins after exposure of differentiated human IMR-32 neuroblastoma cells to oxidative stress. *Brain Research*, **1996**, 738, 162-6	3.7	16
81	Parkinson's disease-associated mutations in the GTPase domain of LRRK2 impair its nucleotide-dependent conformational dynamics. *Journal of Biological Chemistry*, **2019**, 294, 5907-5913	5.4	15
80	Evolution of neurodegeneration. *Current Biology*, **2012**, 22, R753-61	6.3	15
79	Molecular changes in the absence of severe pathology in the pulvinar in dementia with Lewy bodies. *Movement Disorders*, **2018**, 33, 982-991	7	14
78	Unaltered alpha-synuclein blood levels in juvenile Parkinsonism with a parkin exon 4 deletion. *Neuroscience Letters*, **2005**, 374, 189-91	3.3	14
77	Parkin and alpha-synuclein: opponent actions in the pathogenesis of Parkinson's disease. *Neuroscientist*, **2004**, 10, 63-72	7.6	14
76	Comprehensive promoter level expression quantitative trait loci analysis of the human frontal lobe. *Genome Medicine*, **2016**, 8, 65	14.4	14
75	Genetic analysis of neurodegenerative diseases in a pathology cohort. *Neurobiology of Aging*, **2019**, 76, 214.e1-214.e9	5.6	14
74	Aging--RNA in development and disease. *Wiley Interdisciplinary Reviews RNA*, **2012**, 3, 133-43	9.3	13
73	The Effects of Variants in the Parkin, PINK1, and DJ-1 Genes along with Evidence for their Pathogenicity. *Current Protein and Peptide Science*, **2017**, 18, 702-714	2.8	13
72	Sequential screening nominates the Parkinson's disease associated kinase LRRK2 as a regulator of Clathrin-mediated endocytosis. *Neurobiology of Disease*, **2020**, 141, 104948	7.5	13
71	Extracellular clusterin limits the uptake of □synuclein fibrils by murine and human astrocytes. *Glia*, **2021**, 69, 681-696	9	13
70	LAG3 is not expressed in human and murine neurons and does not modulate □synucleinopathies. *EMBO Molecular Medicine*, **2021**, 13, e14745	12	13
69	mTOR independent alteration in ULK1 Ser758 phosphorylation following chronic LRRK2 kinase inhibition. *Bioscience Reports*, **2018**, 38,	4.1	12
68	APOE4 is Associated with Differential Regional Vulnerability to Bioenergetic Deficits in Aged APOE Mice. *Scientific Reports*, **2020**, 10, 4277	4.9	11

67	Use of cysteine-reactive cross-linkers to probe conformational flexibility of human DJ-1 demonstrates that Glu18 mutations are dimers. *Journal of Neurochemistry*, **2014**, 130, 839-53	6	11
66	Post-translational decrease in respiratory chain proteins in the Polg mutator mouse brain. *PLoS ONE*, **2014**, 9, e94646	3.7	11
65	Dystonia and the nuclear envelope. *Neuron*, **2005**, 48, 875-7	13.9	11
64	Glutamine synthetase activity and expression are not affected by the development of motor neuronopathy in the G93A SOD-1/ALS mouse. *Molecular Brain Research*, **2001**, 94, 131-6		11
63	The Polg Mutator Phenotype Does Not Cause Dopaminergic Neurodegeneration in DJ-1-Deficient Mice. *ENeuro*, **2015**, 2,	3.9	11
62	Divergent Effects of G2019S and R1441C LRRK2 Mutations on LRRK2 and Rab10 Phosphorylations in Mouse Tissues. *Cells*, **2020**, 9,	7.9	11
61	Assessment of APOE in atypical parkinsonism syndromes. *Neurobiology of Disease*, **2019**, 127, 142-146	7.5	10
60	Identification of Stk25 as a genetic modifier of Tau phosphorylation in Dab1-mutant mice. *PLoS ONE*, **2012**, 7, e31152	3.7	10
59	A feedforward loop links Gaucher and Parkinson's diseases?. *Cell*, **2011**, 146, 9-11	56.2	10
58	Development, characterisation and epitope mapping of novel monoclonal antibodies for DJ-1 (PARK7) protein. *Neuroscience Letters*, **2005**, 383, 225-30	3.3	10
57	Microarray analysis reveals induction of heat shock proteins mRNAs by the torsion dystonia protein, TorsinA. *Neuroscience Letters*, **2003**, 343, 5-8	3.3	10
56	Biochemical characterization of torsinB. *Molecular Brain Research*, **2004**, 127, 1-9		10
55	High-frequency head impact causes chronic synaptic adaptation and long-term cognitive impairment in mice. *Nature Communications*, **2021**, 12, 2613	17.4	10
54	Alpha-synuclein triggers T-cell response. Is Parkinson's disease an autoimmune disorder?. *Movement Disorders*, **2017**, 32, 1327	7	9
53	Deep sequencing of coding and non-coding RNA in the CNS. *Brain Research*, **2010**, 1338, 146-54	3.7	9
52	Sequence conservation between mouse and human synphilin-1. *Neuroscience Letters*, **2002**, 322, 9-12	3.3	9
51	Genomewide Association Studies of LRRK2 Modifiers of Parkinson's Disease. *Annals of Neurology*, **2021**, 90, 76-88	9.4	9
50	Crystallizing ideas about Parkinson's disease. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 9111-3	11.5	8

49	Tackling neurodegenerative diseases with genomic engineering: A new stem cell initiative from the NIH. *Neuron*, **2021**, 109, 1080-1083	13.9	8
48	LRRK2 recruitment, activity, and function in organelles. *FEBS Journal*, **2021**,	5.7	8
47	Mutations in LRRK2 linked to Parkinson disease sequester Rab8a to damaged lysosomes and regulate transferrin-mediated iron uptake in microglia.. *PLoS Biology*, **2021**, 19, e3001480	9.7	8
46	Parkin-mediated ubiquitination regulates phospholipase C-gamma1. *Journal of Cellular and Molecular Medicine*, **2009**, 13, 3061-8	5.6	7
45	Cultured glial cells are resistant to the effects of motor neurone disease-associated SOD1 mutations. *Neuroscience Letters*, **2001**, 302, 146-50	3.3	7
44	Unravelling the role of defective genes. *Progress in Brain Research*, **2010**, 183, 43-57	2.9	6
43	LRRK2 mediates tubulation and vesicle sorting from membrane damaged lysosomes		6
42	Investigation of Autosomal Genetic Sex Differences in Parkinson's Disease. *Annals of Neurology*, **2021**, 90, 35-42	9.4	6
41	Pathogenic mutations in LRRK2 sequester Rab8a to damaged lysosomes and regulate transferrin-mediated iron uptake in microglia		5
40	Association of Variants in the SPTLC1 Gene With Juvenile Amyotrophic Lateral Sclerosis. *JAMA Neurology*, **2021**, 78, 1236-1248	17.2	5
39	ADAR2 affects mRNA coding sequence edits with only modest effects on gene expression or splicing in vivo. *RNA Biology*, **2016**, 13, 15-24	4.8	4
38	Age-modulated association between prefrontal NAA and the BDNF gene. *International Journal of Neuropsychopharmacology*, **2013**, 16, 1185-93	5.8	4
37	A revised 1.6 Å structure of the GTPase domain of the Parkinson's disease-associated protein LRRK2 provides insights into mechanisms		4
36	Combined Knockout of Lrrk2 and Rab29 Does Not Result in Behavioral Abnormalities in vivo. *Journal of Parkinson's Disease*, **2021**, 11, 569-584	5.3	4
35	Transcriptomic changes in brain development. *International Review of Neurobiology*, **2014**, 116, 233-50	4.4	3
34	Identification of the epitope of a monoclonal antibody to DJ-1. *Neuroscience Letters*, **2005**, 374, 203-6	3.3	3
33	Molecules that cause or prevent Parkinson's disease. *PLoS Biology*, **2004**, 2, e401	9.7	3
32	Preclinical Modeling of Chronic Inhibition of the Parkinson's Disease Associated Kinase LRRK2 Reveals Altered Function of the Endolysosomal System in Vivo		3

31	Mutations in Auxilin cause parkinsonism via impaired clathrin-mediated trafficking at the Golgi apparatus and synapse		3
30	Identification of sixteen novel candidate genes for late onset Parkinson's disease. *Molecular Neurodegeneration*, **2021**, 16, 35	19	3
29	Pathways of protein synthesis and degradation in PD pathogenesis. *Progress in Brain Research*, **2020**, 252, 217-270	2.9	3
28	CoExp: A Web Tool for the Exploitation of Co-expression Networks. *Frontiers in Genetics*, **2021**, 12, 630187	4.5	3
27	Coding and Noncoding Variation in LRRK2 and Parkinson's Disease Risk. *Movement Disorders*, **2021**,	7	3
26	Proteomics; applications in familial Parkinson's disease. *Journal of Neurochemistry*, **2019**, 151, 446-458	6	2
25	Structure, function, and leucine-rich repeat kinase 2: On the importance of reproducibility in understanding Parkinson's disease. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 8346-8	11.5	2
24	The persistence of memory. *New England Journal of Medicine*, **2006**, 355, 2697-8	59.2	2
23	RNA sequencing of whole blood reveals early alterations in immune cells and gene expression in Parkinson's disease. *Nature Aging*, **2021**, 1, 734-747		2
22	Transcriptome analysis of collagen VI-related muscular dystrophy muscle biopsies. *Annals of Clinical and Translational Neurology*, **2021**, 8, 2184-2198	5.3	2
21	Combined knockout of Lrrk2 and Rab29 does not result in behavioral abnormalities in vivo		2
20	Regulation of mitophagy by the NSL complex underlies genetic risk for Parkinson's disease at Chr16q11.2 and on the MAPT H1 allele		2
19	Evidence for connecting multiple neurodegenerative diseases. *Brain Communications*, **2021**, 3, fcab095	4.5	2
18	Generation of fourteen isogenic cell lines for Parkinson's disease-associated leucine-rich repeat kinase (LRRK2). *Stem Cell Research*, **2021**, 53, 102354	1.6	2
17	Quality Control Metrics for Whole Blood Transcriptome Analysis in the Parkinson's Progression Markers Initiative (PPMI)		2
16	Proteomics: techniques and applications in neuroscience. *Journal of Neurochemistry*, **2019**, 151, 394-396	6	1
15	The commercial genetic testing landscape for Parkinson's disease. *Parkinsonism and Related Disorders*, **2021**, 92, 107-111	3.6	1
14	The Role of LRRK2 Kinase Activity in Cellular PD Models **2008**, 423-431		1

13	Membrane targeting activates Leucine-rich repeat kinase 2 with differential effects on downstream Rab activation		1
12	Differences in Stability, Activity and Mutation Effects Between Human and Mouse Leucine-Rich Repeat Kinase 2. *Neurochemical Research*, **2019**, 44, 1446-1459	4.6	1
11	Directing LRRK2 to membranes of the endolysosomal pathway triggers RAB phosphorylation and JIP4 recruitment.. *Neurobiology of Disease*, **2022**, 105769	7.5	1
10	Generation of iPSC line from a Parkinson patient with PARK7 mutation and CRISPR-edited Gibco human episomal iPSC line to mimic PARK7 mutation. *Stem Cell Research*, **2021**, 55, 102506	1.6	0
9	Dominant torsinA mutations in cellular systems. *Advances in Neurology*, **2004**, 94, 73-8		0
8	Evaluation of Current Methods to Detect Cellular Leucine-Rich Repeat Kinase 2 (LRRK2) Kinase Activity. *Journal of Parkinson's Disease*, **2022**, 1-25	5.3	0
7	Signatures of disrupted synaptic maintenance in the entorhinal cortex of both pathology-free APOE4 carriers and aged APOE4 mice. *Alzheimer's and Dementia*, **2020**, 16, e046192	1.2	
6	Parkinson's Disease and Other Synucleinopathies **2018**, 117-143		
5	Gene Linkage and Systems Biology. *Advances in Neurobiology*, **2017**, 15, 479-489	2.1	
4	Conference Scene: Parkinson's disease in the UK: a report from the Parkinson's UK Research Conference. *Neurodegenerative Disease Management*, **2011**, 1, 25-27	2.8	
3	Parkinson's Disease and Related Disorders **2006**, 199-212		
2	Transcriptional signatures in iPSC-derived neurons are reproducible across labs when differentiation protocols are closely matched. *Stem Cell Research*, **2021**, 56, 102558	1.6	
1	Assays for Pten-Induced Novel Kinase 1 (PINK1) and Leucine-Rich Repeat Kinase 2 (LRRK2), Kinases Associated with Parkinson's Disease. *Neuromethods*, **2012**, 219-236	0.4	