Ruth S Slack

List of Publications by Year
in descending order

125 papers	20,085 citations	15504 65 h-index	16183 124 g-index
127 all docs	127 docs citations	127 times ranked	32869 citing authors

#	Article	IF	Citations
1	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy, 2016, 12, 1-222.	9.1	4,701
2	Guidelines for the use and interpretation of assays for monitoring autophagy. Autophagy, 2012, 8, 445-544.	9.1	3,122
3	Role of AIF in caspase-dependent and caspase-independent cell death. Oncogene, 2004, 23, 2785-2796.	5.9	490
4	Caspase 3 activity is required for skeletal muscle differentiation. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11025-11030.	7.1	487
5	Mitochondrial Dynamics Impacts Stem Cell Identity and Fate Decisions by Regulating a Nuclear Transcriptional Program. Cell Stem Cell, 2016, 19, 232-247.	11.1	469
6	Apoptosis-inducing factor is involved in the regulation of caspase-independent neuronal cell death. Journal of Cell Biology, 2002, 158, 507-517.	5.2	434
7	Bax-Dependent Caspase-3 Activation Is a Key Determinant in p53-Induced Apoptosis in Neurons. Journal of Neuroscience, 1999, 19, 7860-7869.	3.6	352
8	Elevated Mitochondrial Bioenergetics and Axonal Arborization Size Are Key Contributors to the Vulnerability of Dopamine Neurons. Current Biology, 2015, 25, 2349-2360.	3.9	351
9	OPA1â€dependent cristae modulation is essential for cellular adaptation to metabolic demand. EMBO Journal, 2014, 33, 2676-2691.	7.8	312
10	Cyclin-dependent kinase 5 is a mediator of dopaminergic neuron loss in a mouse model of Parkinson's disease. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13650-13655.	7.1	288
11	Cell-specific effects of RB or RB/p107 loss on retinal development implicate an intrinsically death-resistant cell-of-origin in retinoblastoma. Cancer Cell, 2004, 5, 539-551.	16.8	275
12	Inhibition of Calpains Prevents Neuronal and Behavioral Deficits in an MPTP Mouse Model of Parkinson's Disease. Journal of Neuroscience, 2003, 23, 4081-4091.	3.6	265
13	Involvement of Interferon-Î³ in Microglial-Mediated Loss of Dopaminergic Neurons. Journal of Neuroscience, 2007, 27, 3328-3337.	3.6	258
14	Mitochondria as central regulators of neural stem cell fate and cognitive function. Nature Reviews Neuroscience, 2019, 20, 34-48.	10.2	246
15	Cytoplasmic Pink1 activity protects neurons from dopaminergic neurotoxin MPTP. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1716-1721.	7.1	228
16	Role of Cdk5-Mediated Phosphorylation of Prx2 in MPTP Toxicity and Parkinson's Disease. Neuron, 2007, 55, 37-52.	8.1	225
17	Involvement of Cell Cycle Elements, Cyclin-dependent Kinases, pRb, and E2FÂ·DP, in B-amyloid-induced Neuronal Death. Journal of Biological Chemistry, 1999, 274, 19011-19016.	3.4	219
18	E2F1 Mediates Death of B-amyloid-treated Cortical Neurons in a Manner Independent of p53 and Dependent on Bax and Caspase 3. Journal of Biological Chemistry, 2000, 275, 11553-11560.	3.4	195

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19	ROS-dependent regulation of Parkin and DJ-1 localization during oxidative stress in neurons. Human Molecular Genetics, 2012, 21, 4888-4903.	2.9	186
20	APAF1 is a key transcriptional target for p53 in the regulation of neuronal cell death. Journal of Cell Biology, 2001, 155, 207-216.	5.2	184
21	Apoptosis-Inducing Factor Is a Key Factor in Neuronal Cell Death Propagated by BAX-Dependent and BAX-Independent Mechanisms. Journal of Neuroscience, 2005, 25, 1324-1334.	3.6	176
22	Calpain-Regulated p35/cdk5 Plays a Central Role in Dopaminergic Neuron Death through Modulation of the Transcription Factor Myocyte Enhancer Factor 2. Journal of Neuroscience, 2006, 26, 440-447.	3.6	175
23	Dissociating the dual roles of apoptosis-inducing factor in maintaining mitochondrial structure and apoptosis. EMBO Journal, 2006, 25, 4061-4073.	7.8	175
24	Leucine-rich repeat kinase 2 interacts with Parkin, DJ-1 and PINK-1 in a Drosophila melanogaster model of Parkinson's disease. Human Molecular Genetics, 2009, 18, 4390-4404.	2.9	170
25	Mcl-1 Is a Key Regulator of Apoptosis during CNS Development and after DNA Damage. Journal of Neuroscience, 2008, 28, 6068-6078.	3.6	166
26	Mitofusin 2 Protects Cerebellar Granule Neurons against Injury-induced Cell Death*. Journal of Biological Chemistry, 2007, 282, 23788-23798.	3.4	161
27	MCL-1 is a stress sensor that regulates autophagy in a developmentally regulated manner. EMBO Journal, 2011, 30, 395-407.	7.8	159
28	The Neuronal Apoptosis Inhibitory Protein Is a Direct Inhibitor of Caspases 3 and 7. Journal of Neuroscience, 2002, 22, 2035-2043.	3.6	156
29	The Parkinson's disease gene DJ-1 is also a key regulator of stroke-induced damage. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18748-18753.	7.1	148
30	DJ-1 protects the nigrostriatal axis from the neurotoxin MPTP by modulation of the AKT pathway. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3186-3191.	7.1	145
31	Telencephalon-specific Rb knockouts reveal enhanced neurogenesis, survival and abnormal cortical development. EMBO Journal, 2002, 21, 3337-3346.	7.8	142
32	Acidosis overrides oxygen deprivation to maintain mitochondrial function and cell survival. Nature Communications, 2014, 5, 3550.	12.8	141
33	Induction and Modulation of Cerebellar Granule Neuron Death by E2F-1. Journal of Biological Chemistry, 2000, 275, 25358-25364.	3.4	136
34	Mitochondrial dynamics in the regulation of neurogenesis: From development to the adult brain. Developmental Dynamics, 2018, 247, 47-53.	1.8	132
35	Multiple cyclin-dependent kinases signals are critical mediators of ischemia/hypoxic neuronal death in vitro and in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14080-14085.	7.1	128
36	Mitochondrial dysfunction underlies cognitive defects as a result of neural stem cell depletion and impaired neurogenesis. Human Molecular Genetics, 2017, 26, 3327-3341.	2.9	124

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37	Regulation of Dopaminergic Loss by Fas in a 1-Methyl-4-Phenyl-1,2,3,6-Tetrahydropyridine Model of Parkinson's Disease. Journal of Neuroscience, 2004, 24, 2045-2053.	3.6	122
38	Differential Roles of Nuclear and Cytoplasmic Cyclin-Dependent Kinase 5 in Apoptotic and Excitotoxic Neuronal Death. Journal of Neuroscience, 2005, 25, 8954-8966.	3.6	122
39	Guidelines on experimental methods to assess mitochondrial dysfunction in cellular models of neurodegenerative diseases. Cell Death and Differentiation, 2018, 25, 542-572.	11.2	120
40	The chromatin-remodeling protein ATRX is critical for neuronal survival during corticogenesis. Journal of Clinical Investigation, 2005, 115, 258-267.	8.2	119
41	Nuclear Factor-ÂB Modulates the p53 Response in Neurons Exposed to DNA Damage. Journal of Neuroscience, 2004, 24, 2963-2973.	3.6	110
42	The role of Cdk5-mediated apurinic/apyrimidinic endonuclease 1 phosphorylation in neuronal death. Nature Cell Biology, 2010, 12, 563-571.	10.3	109
43	The Transcription Factor E2F1 Modulates Apoptosis of Neurons. Journal of Neurochemistry, 2001, 75, 91-100.	3.9	102
44	A Critical Temporal Requirement for the Retinoblastoma Protein Family During Neuronal Determination. Journal of Cell Biology, 1998, 140, 1497-1509.	5.2	101
45	The Mitochondrial Inner Membrane GTPase, Optic Atrophy 1 (Opa1), Restores Mitochondrial Morphology and Promotes Neuronal Survival following Excitotoxicity. Journal of Biological Chemistry, 2011, 286, 4772-4782.	3.4	101
46	Cyclin-Dependent Kinases and P53 Pathways Are Activated Independently and Mediate Bax Activation in Neurons after DNA Damage. Journal of Neuroscience, 2001, 21, 5017-5026.	3.6	100
47	Inhibition of Cyclin-Dependent Kinases Improves CA1 Neuronal Survival and Behavioral Performance after Global Ischemia in the Rat. Journal of Cerebral Blood Flow and Metabolism, 2002, 22, 171-182.	4.3	99
48	p107 regulates neural precursor cells in the mammalian brain. Journal of Cell Biology, 2004, 166, 853-863.	5.2	92
49	Involvement of Caspase 3 in Apoptotic Death of Cortical Neurons Evoked by DNA Damage. Molecular and Cellular Neurosciences, 2000, 15, 368-379.	2.2	89
50	Impaired mitochondrial oxidative phosphorylation and supercomplex assembly in rectus abdominis muscle of diabetic obese individuals. Diabetologia, 2015, 58, 2861-2866.	6.3	88
51	Conditional Disruption of Calpain in the CNS Alters Dendrite Morphology, Impairs LTP, and Promotes Neuronal Survival following Injury. Journal of Neuroscience, 2013, 33, 5773-5784.	3.6	87
52	PINK1-mediated phosphorylation of LETM1 regulates mitochondrial calcium transport and protects neurons against mitochondrial stress. Nature Communications, 2017, 8, 1399.	12.8	87
53	Regulation of myeloid cell phagocytosis by LRRK2 via WAVE2 complex stabilization is altered in Parkinsonâ€™s disease. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E5164-E5173.	7.1	83
54	p53 Activation Domain 1 Is Essential for PUMA Upregulation and p53-Mediated Neuronal Cell Death. Journal of Neuroscience, 2004, 24, 10003-10012.	3.6	81

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55	Unique Requirement for Rb/E2F3 in Neuronal Migration: Evidence for Cell Cycle-Independent Functions. Molecular and Cellular Biology, 2007, 27, 4825-4843.	2.3	80
56	Calpains Mediate p53 Activation and Neuronal Death Evoked by DNA Damage. Journal of Biological Chemistry, 2003, 278, 26031-26038.	3.4	79
57	Viral vectors for modulating gene expression in neurons. Current Opinion in Neurobiology, 1996, 6, 576-583.	4.2	76
58	CDK5 phosphorylates DRP1 and drives mitochondrial defects in NMDA-induced neuronal death. Human Molecular Genetics, 2015, 24, 4573-4583.	2.9	76
59	Inactivation of Pink1 Gene in Vivo Sensitizes Dopamine-producing Neurons to 1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) and Can Be Rescued by Autosomal Recessive Parkinson Disease Genes, Parkin or DJ-1. Journal of Biological Chemistry, 2012, 287, 23162-23170.	3.4	75
60	The Proapoptotic Gene SIVA Is a Direct Transcriptional Target for the Tumor Suppressors p53 and E2F1. Journal of Biological Chemistry, 2004, 279, 28706-28714.	3.4	73
61	The phosphorylation state of Drp1 determines cell fate. EMBO Reports, 2007, 8, 912-913.	4.5	73
62	Essential Role of Cytoplasmic cdk5 and Prx2 in Multiple Ischemic Injury Models,<i>In Vivo</i>. Journal of Neuroscience, 2009, 29, 12497-12505.	3.6	72
63	Progressive dopaminergic cell loss with unilateral-to-bilateral progression in a genetic model of Parkinson disease. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15918-15923.	7.1	72
64	Neural Precursor Cells Differentiating in the Absence of Rb Exhibit Delayed Terminal Mitosis and Deregulated E2F 1 and 3 Activity. Developmental Biology, 1999, 207, 257-270.	2.0	70
65	The Rb-CDK4/6 Signaling Pathway Is Critical in Neural Precursor Cell Cycle Regulation. Journal of Biological Chemistry, 2000, 275, 33593-33600.	3.4	68
66	Opposing Regulation of Sox2 by Cell-Cycle Effectors E2f3a and E2f3b in Neural Stem Cells. Cell Stem Cell, 2013, 12, 440-452.	11.1	68
67	MCL-1Matrix maintains neuronal survival by enhancing mitochondrial integrity and bioenergetic capacity under stress conditions. Cell Death and Disease, 2020, 11, 321.	6.3	68
68	Specific In Vivo Roles for E2Fs in Differentiation and Development. Cell Cycle, 2007, 6, 2917-2927.	2.6	65
69	Mitochondrial activity in the regulation of stem cell self-renewal and differentiation. Current Opinion in Cell Biology, 2017, 49, 1-8.	5.4	65
70	Mitochondrial dynamics in the regulation of neuronal cell death. Apoptosis: an International Journal on Programmed Cell Death, 2007, 12, 979-992.	4.9	61
71	A cell-autonomous requirement for the cell cycle regulatory protein, Rb, in neuronal migration. EMBO Journal, 2005, 24, 4381-4391.	7.8	54
72	The Rb pathway in neurogenesis. NeuroReport, 2001, 12, A55-A62.	1.2	53

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73	The Chk1/Cdc25A Pathway as Activators of the Cell Cycle in Neuronal Death Induced by Camptothecin. Journal of Neuroscience, 2006, 26, 8819-8828.	3.6	53
74	BAG2 Gene-mediated Regulation of PINK1 Protein Is Critical for Mitochondrial Translocation of PARKIN and Neuronal Survival. Journal of Biological Chemistry, 2015, 290, 30441-30452.	3.4	52
75	Rb/E2F Regulates Expression of Neogenin during Neuronal Migration. Molecular and Cellular Biology, 2011, 31, 238-247.	2.3	51
76	MCL-1 regulates the balance between autophagy and apoptosis. Autophagy, 2011, 7, 549-551.	9.1	48
77	Regulation of Expression and Activity of Distinct pRB, E2F, D-Type Cyclin, and CKI Family Members during Terminal Differentiation of P19 Cells. Experimental Cell Research, 1998, 244, 157-170.	2.6	47
78	The Retinoblastoma Protein Is Essential for Survival of Postmitotic Neurons. Journal of Neuroscience, 2012, 32, 14809-14814.	3.6	45
79	The Rb/E2F Pathway Modulates Neurogenesis through Direct Regulation of the Dlx1/Dlx2 Bigene Cluster. Journal of Neuroscience, 2012, 32, 8219-8230.	3.6	44
80	DJ-1 Interacts with and Regulates Paraoxonase-2, an Enzyme Critical for Neuronal Survival in Response to Oxidative Stress. PLoS ONE, 2014, 9, e106601.	2.5	42
81	The Retinoblastoma family member p107 regulates the rate of progenitor commitment to a neuronal fate. Journal of Cell Biology, 2007, 178, 129-139.	5.2	41
82	Interaction of the c-Jun/JNK Pathway and Cyclin-dependent Kinases in Death of Embryonic Cortical Neurons Evoked by DNA Damage. Journal of Biological Chemistry, 2002, 277, 35586-35596.	3.4	40
83	Ataxia Telangiectasia-mutated Protein Can Regulate p53 and Neuronal Death Independent of Chk2 in Response to DNA Damage. Journal of Biological Chemistry, 2003, 278, 37782-37789.	3.4	40
84	c-Jun N-terminal Kinase 3 Deficiency Protects Neurons from Axotomy-induced Death in Vivo through Mechanisms Independent of c-Jun Phosphorylation. Journal of Biological Chemistry, 2005, 280, 1132-1141.	3.4	38
85	Pink1 regulates <scp>FKBP</scp>5 interaction with <scp>AKT</scp>/<scp>PHLPP</scp> and protects neurons from neurotoxin stress induced by <scp>MPP</scp>⁺. Journal of Neurochemistry, 2019, 150, 312-329.	3.9	37
86	Mitochondrial and Reactive Oxygen Species Signaling Coordinate Stem Cell Fate Decisions and Life Long Maintenance. Antioxidants and Redox Signaling, 2018, 28, 1090-1101.	5.4	35
87	Caspase 3 Deficiency Rescues Peripheral Nervous System Defect in Retinoblastoma Nullizygous Mice. Journal of Neuroscience, 2001, 21, 7089-7098.	3.6	34
88	Regulation of the VHL/HIF-1 Pathway by DJ-1. Journal of Neuroscience, 2014, 34, 8043-8050.	3.6	34
89	Response by Arezu Jahaniâ€Asl & Ruth S. Slack. EMBO Reports, 2007, 8, 1089-1090.	4.5	30
90	Comparative analysis of Parkinson's diseaseâ€"associated genes in mice reveals altered survival and bioenergetics of Parkin-deficient dopamine neurons. Journal of Biological Chemistry, 2018, 293, 9580-9593.	3.4	30

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91	HES1 regulates 5-HT1A receptor gene transcription at a functional polymorphism: Essential role in developmental expression. Molecular and Cellular Neurosciences, 2008, 38, 349-358.	2.2	29
92	DJ-1 modulates the unfolded protein response and cell death via upregulation of ATF4 following ER stress. Cell Death and Disease, 2019, 10, 135.	6.3	29
93	Cell Cycle Regulator E2F4 Is Essential for the Development of the Ventral Telencephalon. Journal of Neuroscience, 2007, 27, 5926-5935.	3.6	28
94	Perturbation of Transcription Factor Nur77 Expression Mediated by Myocyte Enhancer Factor 2D (MEF2D) Regulates Dopaminergic Neuron Loss in Response to 1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP). Journal of Biological Chemistry, 2013, 288, 14362-14371.	3.4	26
95	Retinoblastoma gene in mouse neural development. , 1996, 18, 81-91.		25
96	Novel Functions for Cell Cycle Genes in Nervous System Development. Cell Cycle, 2006, 5, 1506-1513.	2.6	25
97	CITED2 Signals through Peroxisome Proliferator-Activated Receptor-Â to Regulate Death of Cortical Neurons after DNA Damage. Journal of Neuroscience, 2008, 28, 5559-5569.	3.6	24
98	Growth factors: can they promote neurogenesis?. Trends in Neurosciences, 2003, 26, 283-285.	8.6	23
99	Sertad1 Plays an Essential Role in Developmentaland Pathological Neuron Death. Journal of Neuroscience, 2010, 30, 3973-3982.	3.6	23
100	Studies on the effects of vitamin E on neuroblastoma N1E 115. Nutrition and Cancer, 1989, 12, 75-82.	2.0	22
101	Interaction and Antagonistic Roles of NF-Î°B and Hes6 in the Regulation of Cortical Neurogenesis. Molecular and Cellular Biology, 2013, 33, 2797-2808.	2.3	22
102	Regulation of Ischemic Neuronal Death by E2F4-p130 Protein Complexes. Journal of Biological Chemistry, 2014, 289, 18202-18213.	3.4	22
103	Involvement of the FcÎ³ Receptor in a Chronic N-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine Mouse Model of Dopaminergic Loss. Journal of Biological Chemistry, 2011, 286, 28783-28793.	3.4	21
104	LKB1-regulated adaptive mechanisms are essential for neuronal survival following mitochondrial dysfunction. Human Molecular Genetics, 2013, 22, 952-962.	2.9	21
105	Delayed combinatorial treatment with flavopiridol and minocycline provides longer term protection for neuronal soma but not dendrites following global ischemia. Journal of Neurochemistry, 2008, 105, 703-713.	3.9	20
106	Pimâ€1 kinase as activator of the cell cycle pathway in neuronal death induced by DNA damage. Journal of Neurochemistry, 2010, 112, 497-510.	3.9	20
107	Dining in with BCL-2: new guests at the autophagy table. Clinical Science, 2010, 118, 173-181.	4.3	19
108	RB regulates the production and the survival of newborn neurons in the embryonic and adult dentate gyrus. Hippocampus, 2016, 26, 1379-1392.	1.9	18

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109	LXCXE-independent chromatin remodeling by Rb/E2f mediates neuronal quiescence. Cell Cycle, 2013, 12, 1416-1423.	2.6	17
110	LRRK2(I2020T) functional genetic interactors that modify eye degeneration and dopaminergic cell loss in Drosophila. Human Molecular Genetics, 2017, 26, 1247-1257.	2.9	17
111	The p107/E2F Pathway Regulates Fibroblast Growth Factor 2 Responsiveness in Neural Precursor Cells. Molecular and Cellular Biology, 2009, 29, 4701-4713.	2.3	15
112	Altered mitochondrial fusion drives defensive glutathione synthesis in cells able to switch to glycolytic ATP production. Biochimica Et Biophysica Acta - Molecular Cell Research, 2021, 1868, 118854.	4.1	14
113	Regulation of axotomy-induced dopaminergic neuron death and c-Jun phosphorylation by targeted inhibition of cdc42 or mixed lineage kinase. Journal of Neurochemistry, 2006, 96, 489-499.	3.9	13
114	Cdc25A Is a Critical Mediator of Ischemic Neuronal Death <i>In Vitro</i> and <i>In Vivo</i>. Journal of Neuroscience, 2017, 37, 6729-6740.	3.6	10
115	The pro-death role of Cited2 in stroke is regulated by E2F1/4 transcription factors. Journal of Biological Chemistry, 2019, 294, 8617-8629.	3.4	10
116	Required Roles of Bax and JNKs in Central and Peripheral Nervous System Death of Retinoblastoma-deficient Mice. Journal of Biological Chemistry, 2008, 283, 405-415.	3.4	9
117	Mitochondrial dynamics in neurodegeneration: from cell death to energetic states. AIMS Molecular Science, 2015, 2, 161-174.	0.5	9
118	RB: An essential player in adult neurogenesis. Neurogenesis (Austin, Tex), 2017, 4, e1270382.	1.5	6
119	Analysis and manipulation of neuronal gene expression using the TÎ±1 Î±-tubulin promoter. Seminars in Neuroscience, 1996, 8, 117-124.	2.2	5
120	E2F4 Is Required for Early Eye Patterning. Developmental Neuroscience, 2009, 31, 238-246.	2.0	5
121	Forebrain neurogenesis: From embryo to adult. Trends in Developmental Biology, 2016, 9, 77-90.	1.0	3
122	Cdk5-mediated JIP1 phosphorylation regulates axonal outgrowth through Notch1 inhibition. BMC Biology, 2022, 20, 115.	3.8	3
123	Induction of Protein Deletion Through In Utero Electroporation to Define Deficits in Neuronal Migration in Transgenic Models. Journal of Visualized Experiments, 2015, , 51983.	0.3	2
124	Modeling Neuronal Death and Degeneration in Mouse Primary Cerebellar Granule Neurons. Journal of Visualized Experiments, 2017, , .	0.3	2
125	Emerging Roles for the Retinoblastoma Gene Family. , 2006, , 81-105.		1