## Matthew J Lavoie

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/3632546/publications.pdf

Version: 2024-02-01

48 papers

11,903 citations

35 h-index 223800 46 g-index

50 all docs 50 docs citations

50 times ranked

 $\begin{array}{c} 20572 \\ \text{citing authors} \end{array}$ 

#	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	PINK1 and Parkin Target Miro for Phosphorylation and Degradation to Arrest Mitochondrial Motility. Cell, 2011, 147, 893-906.	28.9	997
3	$\hat{I}^3$ -Secretase is a membrane protein complex comprised of presentlin, nicastrin, aph-1, and pen-2. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 6382-6387.	7.1	739
4	Dopamine covalently modifies and functionally inactivates parkin. Nature Medicine, 2005, 11, 1214-1221.	30.7	658
5	Mitophagy of damaged mitochondria occurs locally in distal neuronal axons and requires PINK1 and Parkin. Journal of Cell Biology, 2014, 206, 655-670.	5.2	415
6	Dopamine Quinone Formation and Protein Modification Associated with the Striatal Neurotoxicity of Methamphetamine: Evidence against a Role for Extracellular Dopamine. Journal of Neuroscience, 1999, 19, 1484-1491.	3 <b>.</b> 6	389
7	The Notch Ligands, Jagged and Delta, Are Sequentially Processed by α-Secretase and Presenilin/γ-Secretase and Release Signaling Fragments. Journal of Biological Chemistry, 2003, 278, 34427-34437.	3.4	313
8	Parkinson's disease-linked LRRK2 is expressed in circulating and tissue immune cells and upregulated following recognition of microbial structures. Journal of Neural Transmission, 2011, 118, 795-808.	2.8	230
9	Purification and Characterization of the Human γ-Secretase Complexâ€. Biochemistry, 2004, 43, 9774-9789.	2.5	225
10	Membrane recruitment of endogenous LRRK2 precedes its potent regulation of autophagy. Human Molecular Genetics, 2014, 23, 4201-4214.	2.9	197
11	Membrane Localization of LRRK2 Is Associated with Increased Formation of the Highly Active LRRK2 Dimer and Changes in Its Phosphorylation. Biochemistry, 2010, 49, 5511-5523.	2.5	191
12	Microglial activation precedes dopamine terminal pathology in methamphetamine-induced neurotoxicity. Experimental Neurology, 2004, 187, 47-57.	4.1	179
13	Assembly of the $\hat{I}^3$ -Secretase Complex Involves Early Formation of an Intermediate Subcomplex of Aph-1 and Nicastrin. Journal of Biological Chemistry, 2003, 278, 37213-37222.	3.4	178
14	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
15	The ubiquitin E3 ligase parkin regulates the proapoptotic function of Bax. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6283-6288.	7.1	149
16	Cell Type-Specific Transcriptomics Reveals that Mutant Huntingtin Leads to Mitochondrial RNA Release and Neuronal Innate Immune Activation. Neuron, 2020, 107, 891-908.e8.	8.1	147
17	Peroxynitrite- and Nitrite-Induced Oxidation of Dopamine: Implications for Nitric Oxide in Dopaminergic Cell Loss. Journal of Neurochemistry, 2002, 73, 2546-2554.	3.9	129
18	Detergent-Dependent Dissociation of Active $\hat{I}^3$ -Secretase Reveals an Interaction between Pen-2 and PS1-NTF and Offers a Model for Subunit Organization within the Complex. Biochemistry, 2004, 43, 323-333.	2.5	127

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19	Miro phosphorylation sites regulate Parkin recruitment and mitochondrial motility. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E6097-E6106.	7.1	122
20	Molecular Map of the Chlamydomonas reinhardtii Nuclear Genome. Eukaryotic Cell, 2003, 2, 362-379.	3.4	121
21	The complex relationships between microglia, alpha-synuclein, and LRRK2 in Parkinson's disease. Neuroscience, 2015, 302, 74-88.	2.3	110
22	Regulation of a distinct activated RIPK1 intermediate bridging complex I and complex II in TNFα-mediated apoptosis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E5944-E5953.	7.1	110
23	Familial knockin mutation of LRRK2 causes lysosomal dysfunction and accumulation of endogenous insoluble α-synuclein in neurons. Neurobiology of Disease, 2018, 111, 26-35.	4.4	108
24	Complex N-linked Glycosylated Nicastrin Associates with Active $\hat{I}^3$ -Secretase and Undergoes Tight Cellular Regulation. Journal of Biological Chemistry, 2002, 277, 35113-35117.	3.4	101
25	Functional $\hat{I}^3$ -secretase complex assembly in Golgi/trans-Golgi network: interactions among presenilin, nicastrin, Aph1, Pen-2, and $\hat{I}^3$ -secretase substrates. Neurobiology of Disease, 2003, 14, 194-204.	4.4	99
26	$\hat{I}^3$ -Secretase Substrate Selectivity Can Be Modulated Directly via Interaction with a Nucleotide-binding Site. Journal of Biological Chemistry, 2005, 280, 41987-41996.	3.4	98
27	The Vfl1 Protein in Chlamydomonas Localizes in a Rotationally Asymmetric Pattern at the Distal Ends of the Basal Bodies. Journal of Cell Biology, 2001, 153, 63-74.	5.2	96
28	î³-Secretase Cleavage and Binding to FE65 Regulate the Nuclear Translocation of the Intracellular C-Terminal Domain (ICD) of the APP Family of Proteinsâ€. Biochemistry, 2003, 42, 6664-6673.	2.5	94
29	Lysosome and Inflammatory Defects in <i>GBA1</i> à€Mutant Astrocytes Are Normalized by LRRK2 Inhibition. Movement Disorders, 2020, 35, 760-773.	3.9	79
30	The effects of oxidative stress on parkin and other E3 ligases. Journal of Neurochemistry, 2007, 103, 2354-2368.	3.9	78
31	Parkin selectively alters the intrinsic threshold for mitochondrial cytochrome c release. Human Molecular Genetics, 2009, 18, 4317-4328.	2.9	77
32	Lipidomic profiling in mouse brain reveals differences between ages and genders, with smaller changes associated with αâ€synuclein genotype. Journal of Neurochemistry, 2009, 111, 15-25.	3.9	76
33	Dimerization of Parkinson's disease-causing DJ-1 and formation of high molecular weight complexes in human brain. Molecular and Cellular Neurosciences, 2004, 27, 236-246.	2.2	58
34	Proteostasis and Movement Disorders: Parkinson's Disease and Amyotrophic Lateral Sclerosis. Cold Spring Harbor Perspectives in Biology, 2011, 3, a007500-a007500.	5.5	55
35	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.	5.6	48
36	The Uni2 Phosphoprotein is a Cell Cycle–regulated Component of the Basal Body Maturation Pathway in Chlamydomonas reinhardtii. Molecular Biology of the Cell, 2008, 19, 262-273.	2.1	39

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37	Evidence That α-Synuclein Does Not Inhibit Phospholipase D. Biochemistry, 2009, 48, 1077-1083.	2.5	31
38	Aph-1 Associates Directly with Full-length and C-terminal Fragments of $\hat{I}^3$ -Secretase Substrates. Journal of Biological Chemistry, 2010, 285, 11378-11391.	3.4	30
39	LRRK2 Kinase Inhibition Rescues Deficits in Lysosome Function Due to Heterozygous GBA1 Expression in Human iPSC-Derived Neurons. Frontiers in Neuroscience, 2020, 14, 442.	2.8	30
40	Pathologic and therapeutic implications for the cell biology of parkin. Molecular and Cellular Neurosciences, 2015, 66, 62-71.	2.2	27
41	Is there a special relationship between complex I activity and nigral neuronal loss in Parkinson's disease? A critical reappraisal. Brain Research, 2021, 1767, 147434.	2.2	25
42	The mitochondrial disease associated protein Ndufaf2 is dispensable for Complex-1 assembly but critical for the regulation of oxidative stress. Neurobiology of Disease, 2013, 58, 57-67.	4.4	23
43	Recognizing the cooperative and independent mitochondrial functions of Parkin and PINK1. Cell Cycle, 2012, 11, 2775-2776.	2.6	14
44	Genetic deletion of the GATA1â€regulated protein αâ€synuclein reduces oxidative stress and nitric oxide synthase levels in mature erythrocytes. American Journal of Hematology, 2014, 89, 974-977.	4.1	13
45	Endogenous LRRK2 dimerizes and translocates to novel membrane compartments during monocyte activation. FASEB Journal, 2013, 27, .	0.5	1
46	Career building as a neuroscientist at a research hospital. Annals of Neurology, 2015, 77, 367-370.	5.3	0
47	Zanzibara. 4 volume CD series, published by Buda Musique, Werner Graebner, producer. Detailed booklets for each volume in French and English. Titles: Ikwani Safaa Musical Club Volume 1; L'age d'or du taarab de Mombasa Volume 2; Ujamaa, le son des annees 60 en Tanzanie Volume 3; La memoire de la musique zanzibaraise, Volume 4 , 2008, 8, 133-134.		0
48	Monitoring the Structural Dynamics of LRRK2 using Split―Luciferase Proteinâ€Fragmentâ€Assisted Complementation. FASEB Journal, 2013, 27, 1013.4.	0.5	0