Ronald Melki

List of Publications by Year
in descending order

80 papers	8,349 citations	71102 41 h-index	74163 75 g-index
84 all docs	84 docs citations	84 times ranked	8358 citing authors

#	Article	IF	Citations
1	Î±-Synuclein propagates from mouse brain to grafted dopaminergic neurons and seeds aggregation in cultured human cells. Journal of Clinical Investigation, 2011, 121, 715-725.	8.2	722
2	Structural and functional characterization of two alpha-synuclein strains. Nature Communications, 2013, 4, 2575.	12.8	721
3	Prion-like transmission of protein aggregates in neurodegenerative diseases. Nature Reviews Molecular Cell Biology, 2010, 11, 301-307.	37.0	640
4	G51D Î±â€synuclein mutation causes a novel Parkinsonianâ€“pyramidal syndrome. Annals of Neurology, 2013, 73, 459-471.	5.3	580
5	Cytoplasmic penetration and persistent infection of mammalian cells by polyglutamine aggregates. Nature Cell Biology, 2009, 11, 219-225.	10.3	385
6	Neuronâ€toâ€neuron transmission of Î±â€synuclein fibrils through axonal transport. Annals of Neurology, 2012, 72, 517-524.	5.3	305
7	Tunneling nanotubes spread fibrillar Î±â€synuclein by intercellular trafficking of lysosomes. EMBO Journal, 2016, 35, 2120-2138.	7.8	286
8	Transfer of human Î±-synuclein from the olfactory bulb to interconnected brain regions in mice. Acta Neuropathologica, 2013, 126, 555-573.	7.7	224
9	Fibrillar Î±-Synuclein and Huntingtin Exon 1 Assemblies Are Toxic to the Cells. Biophysical Journal, 2012, 102, 2894-2905.	0.5	220
10	Two new polymorphic structures of human full-length alpha-synuclein fibrils solved by cryo-electron microscopy. ELife, 2019, 8, .	6.0	220
11	Prying into the Prion Hypothesis for Parkinson's Disease. Journal of Neuroscience, 2017, 37, 9808-9818.	3.6	213
12	Tunneling nanotube (TNT)-mediated neuron-to neuron transfer of pathological Tau protein assemblies. Acta Neuropathologica Communications, 2016, 4, 117.	5.2	207
13	Endocytic vesicle rupture is a conserved mechanism of cellular invasion by amyloid proteins. Acta Neuropathologica, 2017, 134, 629-653.	7.7	201
14	Î±â€synuclein oligomers and fibrils: a spectrum of species, a spectrum of toxicities. Journal of Neurochemistry, 2019, 150, 522-534.	3.9	201
15	Î±-Synuclein transfer between neurons and astrocytes indicates that astrocytes play a role in degradation rather than in spreading. Acta Neuropathologica, 2017, 134, 789-808.	7.7	182
16	Î±â€synuclein assemblies sequester neuronal Î±3â€Na⁺/K⁺â€<scp>ATP</scp>ase and <scp>impair</scp> Na⁺ gradient. EMBO Journal, 2015, 34, 2408-2423.	7.8	177
17	The structural differences between patient-derived Î±-synuclein strains dictate characteristics of Parkinsonâ€™s disease, multiple system atrophy and dementia with Lewy bodies. Acta Neuropathologica, 2020, 139, 977-1000.	7.7	149
18	The S/T-Rich Motif in the DNAJB6 Chaperone Delays Polyglutamine Aggregation and the Onset of Disease in a Mouse Model. Molecular Cell, 2016, 62, 272-283.	9.7	140

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19	Axonal transport and secretion of fibrillar forms of Î±-synuclein, AÎ²42 peptide and HTTExon 1. Acta Neuropathologica, 2016, 131, 539-548.	7.7	127
20	Structural and functional properties of prefibrillar Î±-synuclein oligomers. Scientific Reports, 2016, 6, 24526.	3.3	125
21	Role of Different Alpha-Synuclein Strains in Synucleinopathies, Similarities with other Neurodegenerative Diseases. Journal of Parkinson's Disease, 2015, 5, 217-227.	2.8	107
22	Hsc70 Protein Interaction with Soluble and Fibrillar Î±-Synuclein. Journal of Biological Chemistry, 2011, 286, 34690-34699.	3.4	103
23	Molecular chaperones and the assembly of the prion Sup35p, an in vitro study. EMBO Journal, 2006, 25, 822-833.	7.8	101
24	Propagation of Î±-Synuclein Strains within Human Reconstructed Neuronal Network. Stem Cell Reports, 2019, 12, 230-244.	4.8	99
25	Increased Immune Activation by Pathologic Î±â€Synuclein in Parkinson's Disease. Annals of Neurology, 2019, 86, 593-606.	5.3	95
26	PA700, the regulatory complex of the 26S proteasome, interferes with Î±-synuclein assembly. FEBS Journal, 2005, 272, 4023-4033.	4.7	83
27	Physico-Pathologic Mechanisms Involved in Neurodegeneration: Misfolded Protein-Plasma Membrane Interactions. Neuron, 2017, 95, 33-50.	8.1	83
28	Î²-amyloid and ATP-induced diffusional trapping of astrocyte and neuronal metabotropic glutamate type-5 receptors. Glia, 2013, 61, 1673-1686.	4.9	80
29	Alpha-synuclein research: defining strategic moves in the battle against Parkinsonâ€™s disease. Npj Parkinson's Disease, 2021, 7, 65.	5.3	74
30	Molecular Interaction between the Chaperone Hsc70 and the N-terminal Flank of Huntingtin Exon 1 Modulates Aggregation. Journal of Biological Chemistry, 2015, 290, 2560-2576.	3.4	73
31	Î±-Synuclein conformational strains spread, seed and target neuronal cells differentially after injection into the olfactory bulb. Acta Neuropathologica Communications, 2019, 7, 221.	5.2	70
32	The native-like conformation of Ure2p in fibrils assembled under physiologically relevant conditions switches to an amyloid-like conformation upon heat-treatment of the fibrils. Journal of Structural Biology, 2003, 141, 132-142.	2.8	68
33	Differential Membrane Binding and Seeding of Distinct Î±-Synuclein Fibrillar Polymorphs. Biophysical Journal, 2020, 118, 1301-1320.	0.5	59
34	Endogenous alpha-synuclein monomers, oligomers and resulting pathology: letâ€™s talk about the lipids in the room. Npj Parkinson's Disease, 2019, 5, 23.	5.3	57
35	Structural Characterization of the Fibrillar Form of the Yeast Saccharomyces cerevisiae Prion Ure2p. Biochemistry, 2004, 43, 5022-5032.	2.5	54
36	Alpha-synuclein spreading in M83 mice brain revealed by detection of pathological Î±-synuclein by enhanced ELISA. Acta Neuropathologica Communications, 2014, 2, 29.	5.2	53

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37	The expression level of alpha-synuclein in different neuronal populations is the primary determinant of its prion-like seeding. Scientific Reports, 2020, 10, 4895.	3.3	53
38	Nanomechanical properties of distinct fibrillar polymorphs of the protein Î±-synuclein. Scientific Reports, 2016, 6, 37970.	3.3	52
39	Phenotypic manifestation of Î±-synuclein strains derived from Parkinsonâ€™s disease and multiple system atrophy in human dopaminergic neurons. Nature Communications, 2021, 12, 3817.	12.8	52
40	Biochemical and Functional Analysis of the Assembly of Full-length Sup35p and Its Prion-forming Domain. Journal of Biological Chemistry, 2007, 282, 1679-1686.	3.4	49
41	Fibrillar Structure and Charge Determine the Interaction of Polyglutamine Protein Aggregates with the Cell Surface. Journal of Biological Chemistry, 2012, 287, 29722-29728.	3.4	48
42	LAG3 is not expressed in human and murine neurons and does not modulate Î±â€synucleinopathies. EMBO Molecular Medicine, 2021, 13, e14745.	6.9	44
43	Methyl-branched lipids promote the membrane adsorption of Î±-synuclein by enhancing shallow lipid-packing defects. Physical Chemistry Chemical Physics, 2015, 17, 15589-15597.	2.8	42
44	Sup35p in Its Soluble and Prion States Is Packaged inside Extracellular Vesicles. MBio, 2015, 6, .	4.1	42
45	Clustering of Tau fibrils impairs the synaptic composition of Î±3â€Na ⁺ /K ⁺ â€• <scp>ATP</scp> ase and <scp>AMPA</scp> receptors. EMBO Journal, 2019, 38, .	7.8	42
46	Identification of Protein Interfaces between Î±-Synuclein, the Principal Component of Lewy Bodies in Parkinson Disease, and the Molecular Chaperones Human Hsc70 and the Yeast Ssa1p. Journal of Biological Chemistry, 2012, 287, 32630-32639.	3.4	40
47	The Conformation of the Prion Domain of Sup35â€‰p in Isolation and in the Fullâ€Length Protein. Angewandte Chemie - International Edition, 2013, 52, 12741-12744.	13.8	40
48	Further exploration of the conformational space of Î±-synuclein fibrils: solid-state NMR assignment of a high-pH polymorph. Biomolecular NMR Assignments, 2016, 10, 5-12.	0.8	36
49	Effect of tolytoxin on tunneling nanotube formation and function. Scientific Reports, 2019, 9, 5741.	3.3	36
50	KLK6 proteolysis is implicated in the turnover and uptake of extracellular alpha-synuclein species. Oncotarget, 2017, 8, 14502-14515.	1.8	36
51	Î±-Synuclein and huntingtin exon 1 amyloid fibrils bind laterally to the cellular membrane. Scientific Reports, 2016, 6, 19180.	3.3	35
52	Cell biology and dynamics of Neuronal Na+/K+-ATPase in health and diseases. Neuropharmacology, 2020, 169, 107461.	4.1	35
53	TNF-Î± and Î±-synuclein fibrils differently regulate human astrocyte immune reactivity and impair mitochondrial respiration. Cell Reports, 2021, 34, 108895.	6.4	35
54	How the shapes of seeds can influence pathology. Neurobiology of Disease, 2018, 109, 201-208.	4.4	34

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55	Cellular response of human neuroblastoma cells to Î±-synuclein fibrils, the main constituent of Lewy bodies. Biochimica Et Biophysica Acta - General Subjects, 2016, 1860, 8-19.	2.4	32
56	Molecular Chaperones and the Assembly of the Prion Ure2p in Vitro. Journal of Biological Chemistry, 2008, 283, 15732-15739.	3.4	31
57	A mutation within the Câ€terminal domain of Sup35p that affects [PSI⁺] prion propagation. Molecular Microbiology, 2011, 81, 640-658.	2.5	29
58	A Novel Bio-Orthogonal Cross-Linker for Improved Protein/Protein Interaction Analysis. Analytical Chemistry, 2015, 87, 1853-1860.	6.5	24
59	Distinct alphaâ€Synuclein species induced by seeding are selectively cleared by the Lysosome or the Proteasome in neuronally differentiated SHâ€SY5Y cells. Journal of Neurochemistry, 2021, 156, 880-896.	3.9	22
60	The interaction of Hsc70 protein with fibrillar Î±-Synuclein and its therapeutic potential in Parkinsonâ€™s disease. Communicative and Integrative Biology, 2012, 5, 94-95.	1.4	20
61	Assessment of the efficacy of different procedures that remove and disassemble alpha-synuclein, tau and A-beta fibrils from laboratory material and surfaces. Scientific Reports, 2018, 8, 10788.	3.3	20
62	Microglial inclusions and neurofilament light chain release follow neuronal Î±-synuclein lesions in long-term brain slice cultures. Molecular Neurodegeneration, 2021, 16, 54.	10.8	20
63	Yeast prions assembly and propagation: Contributions of the prion and non-prion moieties and the nature of assemblies. Prion, 2011, 5, 277-284.	1.8	16
64	More than just trash bins? Potential roles for extracellular vesicles in the vertical and horizontal transmission of yeast prions. Current Genetics, 2016, 62, 265-270.	1.7	15
65	Endogenous Levels of Alpha-Synuclein Modulate Seeding and Aggregation in Cultured Cells. Molecular Neurobiology, 2022, 59, 1273-1284.	4.0	15
66	A prolonged chronological lifespan is an unexpected benefit of the [PSI+] prion in yeast. PLoS ONE, 2017, 12, e0184905.	2.5	13
67	Data in support of the identification of neuronal and astrocyte proteins interacting with extracellularly applied oligomeric and fibrillar Î±-synuclein assemblies by mass spectrometry. Data in Brief, 2016, 7, 221-228.	1.0	10
68	Interaction of the chaperones alpha B-crystallin and CHIP with fibrillar alpha-synuclein: Effects on internalization by cells and identification of interacting interfaces. Biochemical and Biophysical Research Communications, 2020, 527, 760-769.	2.1	8
69	Modelling Î±-Synuclein Aggregation and Neurodegeneration with Fibril Seeds in Primary Cultures of Mouse Dopaminergic Neurons. Cells, 2022, 11, 1640.	4.1	8
70	Dipeptide repeat derived from C9orf72 hexanucleotide expansions forms amyloids or natively unfolded structures inÂvitro. Biochemical and Biophysical Research Communications, 2020, 526, 410-416.	2.1	7
71	C9ORF72-derived poly-GA DPRs undergo endocytic uptake in iAstrocytes and spread to motor neurons. Life Science Alliance, 2022, 5, e202101276.	2.8	6
72	The Yarrowia lipolytica orthologs of Sup35p assemble into thioflavin T-negative amyloid fibrils. Biochemical and Biophysical Research Communications, 2020, 529, 533-539.	2.1	5

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73	Structural mapping techniques distinguish the surfaces of fibrillar 1N3R and 1N4R human tau. Journal of Biological Chemistry, 2021, 297, 101252.	3.4	4
74	Polypeptides derived from Î±-Synuclein binding partners to prevent Î±-Synuclein fibrils interaction with and take-up by cells. PLoS ONE, 2020, 15, e0237328.	2.5	3
75	The 26S Proteasome Degrades the Soluble but Not the Fibrillar Form of the Yeast Prion Ure2p In Vitro. PLoS ONE, 2015, 10, e0131789.	2.5	3
76	The multitude of therapeutic targets in neurodegenerative proteinopathies. , 2017, , 1-20.		1
77	Title is missing!. , 2020, 15, e0237328.		0
78	Title is missing!. , 2020, 15, e0237328.		0
79	Title is missing!. , 2020, 15, e0237328.		0
80	Title is missing!. , 2020, 15, e0237328.		0