

Axel Kowald

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

1,789
citations

236833

25
h-index

276775

41
g-index

55
all docs

55
docs citations

55
times ranked

2465
citing authors

#	ARTICLE	IF	CITATIONS
1	Morpho-dynamic changes of mitochondria during ageing of human endothelial cells. <i>Mechanisms of Ageing and Development</i> , 2005, 126, 813-821.	2.2	140
2	Accumulation of Defective Mitochondria through Delayed Degradation of Damaged Organelles and Its Possible Role in the Ageing of Post-mitotic and Dividing Cells. <i>Journal of Theoretical Biology</i> , 2000, 202, 145-160.	0.8	114
3	Can aging be programmed? A critical literature review. <i>Aging Cell</i> , 2016, 15, 986-998.	3.0	114
4	Evolution of the mitochondrial fusion–fission cycle and its role in aging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 10237-10242.	3.3	113
5	The free-radical theory of ageing – older, wiser and still alive. <i>BioEssays</i> , 2012, 34, 692-700.	1.2	108
6	Systems biology standards—the community speaks. <i>Nature Biotechnology</i> , 2007, 25, 390-391.	9.4	87
7	Single-cell analyses of aging, inflammation and senescence. <i>Ageing Research Reviews</i> , 2020, 64, 101156.	5.0	85
8	On the evolution of cellular senescence. <i>Aging Cell</i> , 2020, 19, e13270.	3.0	84
9	Profiling of Alopecia Areata Autoantigens Based on Protein Microarray Technology. <i>Molecular and Cellular Proteomics</i> , 2005, 4, 1382-1390.	2.5	67
10	Quality matters: how does mitochondrial network dynamics and quality control impact on mtDNA integrity?. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130442.	1.8	63
11	Transcription could be the key to the selection advantage of mitochondrial deletion mutants in aging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 2972-2977.	3.3	54
12	Finding Kinetic Parameters Using Text Mining. <i>OMICS A Journal of Integrative Biology</i> , 2004, 8, 131-152.	1.0	47
13	The mitochondrial theory of aging: Do damaged mitochondria accumulate by delayed degradation?. <i>Experimental Gerontology</i> , 1999, 34, 605-612.	1.2	46
14	The Mitochondrial Theory of Aging. <i>NeuroSignals</i> , 2001, 10, 162-175.	0.5	45
15	On the relevance of mitochondrial fusions for the accumulation of mitochondrial deletion mutants: A modelling study. <i>Aging Cell</i> , 2005, 4, 273-283.	3.0	43
16	A systems biological analysis links ROS metabolism to mitochondrial protein quality control. <i>Mechanisms of Ageing and Development</i> , 2012, 133, 331-337.	2.2	43
17	Alternative pathways as mechanism for the negative effects associated with overexpression of superoxide dismutase. <i>Journal of Theoretical Biology</i> , 2006, 238, 828-840.	0.8	42
18	Mitochondrial mutations and aging: random drift is insufficient to explain the accumulation of mitochondrial deletion mutants in short-lived animals. <i>Aging Cell</i> , 2013, 12, 728-731.	3.0	40

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19	Lifespan does not measure ageing. <i>Biogerontology</i> , 2002, 3, 187-190.	2.0	33
20	Serum autoantibodies for discovery of prostate cancer specific biomarkers. <i>Prostate</i> , 2012, 72, 427-436.	1.2	33
21	A modelling approach to quantify dynamic crosstalk between the pheromone and the starvation pathway in baker's yeast. <i>FEBS Journal</i> , 2006, 273, 3520-3533.	2.2	31
22	Resolving the Enigma of the Clonal Expansion of mtDNA Deletions. <i>Genes</i> , 2018, 9, 126.	1.0	31
23	Estimation of the mtDNA mutation rate in aging mice by proteome analysis and mathematical modeling. <i>Experimental Gerontology</i> , 2006, 41, 11-24.	1.2	30
24	Alternative Pathways Might Mediate Toxicity of High Concentrations of Superoxide Dismutase. <i>Annals of the New York Academy of Sciences</i> , 2004, 1019, 370-374.	1.8	28
25	Mitochondrial mutations and ageing: Can mitochondrial deletion mutants accumulate via a size based replication advantage?. <i>Journal of Theoretical Biology</i> , 2014, 340, 111-118.	0.8	28
26	Evolutionary significance of ageing in the wild. <i>Experimental Gerontology</i> , 2015, 71, 89-94.	1.2	28
27	Off-target activity of TNF- α inhibitors characterized by protein biochips. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 391, 1713-1720.	1.9	25
28	The preventive strategy for pandemics in the elderly is to collect in advance samples & data to counteract chronic inflammation (inflammaging). <i>Ageing Research Reviews</i> , 2020, 62, 101091.	5.0	20
29	Investigation of autoantibody profiles for cerebrospinal fluid biomarker discovery in patients with relapsing-remitting multiple sclerosis. <i>Journal of Neuroimmunology</i> , 2012, 242, 26-32.	1.1	18
30	Directionality theory: a computational study of an entropic principle in evolutionary processes. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2005, 272, 741-749.	1.2	15
31	Mathematical Models of Mitochondrial Aging and Dynamics. <i>Progress in Molecular Biology and Translational Science</i> , 2014, 127, 63-92.	0.9	15
32	A tree-based decision rule for identifying profile groups of cases without predefined classes: application in diffuse large B-cell lymphomas. <i>Computers in Biology and Medicine</i> , 2007, 37, 637-641.	3.9	14
33	Telomere Length in Peripheral Blood Mononuclear Cells of Patients on Chronic Hemodialysis Is Related With Telomerase Activity and Treatment Duration. <i>Artificial Organs</i> , 2015, 39, 756-764.	1.0	12
34	Forest classification trees and forest support vector machines algorithms: Demonstration using microarray data. <i>Computers in Biology and Medicine</i> , 2010, 40, 519-524.	3.9	11
35	Senolytics and the compression of late-life mortality. <i>Experimental Gerontology</i> , 2021, 155, 111588.	1.2	11
36	The evolution and role of mitochondrial fusion and fission in aging and disease. <i>Communicative and Integrative Biology</i> , 2011, 4, 627-629.	0.6	10

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37	Non-parametric classification of protein secondary structures. <i>Computers in Biology and Medicine</i> , 2006, 36, 145-156.	3.9	9
38	New Analytical Tools for Studying Autoimmune Diseases. <i>Current Pharmaceutical Design</i> , 2006, 12, 3735-42.	0.9	7
39	The evolution and role of mitochondrial fusion and fission in aging and disease. <i>Communicative and Integrative Biology</i> , 2011, 4, 627-9.	0.6	7
40	A mathematical model of HIV dynamics in the presence of a rescuing virus with replication deficiency. <i>Theory in Biosciences</i> , 2011, 130, 127-134.	0.6	5
41	Text Mining for Systems Modeling. <i>Methods in Molecular Biology</i> , 2011, 696, 305-318.	0.4	5
42	Biomarkers of geroprotection and cardiovascular health: An overview of omics studies and established clinical biomarkers in the context of diet. <i>Critical Reviews in Food Science and Nutrition</i> , 2023, 63, 2426-2446.	5.4	5
43	Towards biomarkers for outcomes after pancreatic ductal adenocarcinoma and ischaemic stroke, with focus on (co)-morbidity and ageing/cellular senescence (SASKit): protocol for a prospective cohort study. <i>BMJ Open</i> , 2020, 10, e039560.	0.8	5
44	Modeling the Role of Mitochondrial Mutations in Cellular Aging. <i>Rejuvenation Research</i> , 1999, 2, 243-253.	0.2	4
45	A comparison of amino acid distance measures using procrustes analysis. <i>Computers in Biology and Medicine</i> , 1999, 29, 283-288.	3.9	4
46	Theoretical Gompertzian implications on life span variability among genotypically identical animals. <i>Mechanisms of Ageing and Development</i> , 1999, 110, 101-107.	2.2	3
47	Critique of directionality theory. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2006, 273, 1183-1186.	1.2	2
48	Standards, Tools, and Databases for the Analysis of Yeast Omics Data. <i>Methods in Molecular Biology</i> , 2011, 759, 345-365.	0.4	2
49	The glyoxalase system as an example of a cellular maintenance pathway with relevance to aging. <i>Aging</i> , 2011, 3, 17-18.	1.4	2
50	Mathematical Modeling of the Aging Process. , 2009, , 312-330.		1
51	Disposable Soma Aging Theory. , 2019, , 1-6.		0
52	Disposable Soma Aging Theory. , 2021, , 1481-1487.		0