

# Markus A Keller

## List of Publications by Year in descending order

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Version: 2024-02-01

58  
papers

3,401  
citations

236925

25  
h-index

161849

54  
g-index

62  
all docs

62  
docs citations

62  
times ranked

5522  
citing authors

#	ARTICLE	IF	CITATIONS
1	The return of metabolism: biochemistry and physiology of the pentose phosphate pathway. <i>Biological Reviews</i> , 2015, 90, 927-963.	10.4	908
2	Non-enzymatic glycolysis and pentose phosphate pathway-like reactions in a plausible Archean ocean. <i>Molecular Systems Biology</i> , 2014, 10, 725.	7.2	182
3	An international classification of inherited metabolic disorders (ICIMD). <i>Journal of Inherited Metabolic Disease</i> , 2021, 44, 164-177.	3.6	146
4	Dietary lipids fuel GPX4-restricted enteritis resembling Crohn's disease. <i>Nature Communications</i> , 2020, 11, 1775.	12.8	143
5	A time-resolved proteomic and prognostic map of COVID-19. <i>Cell Systems</i> , 2021, 12, 780-794.e7.	6.2	125
6	Unbiased Metabolomic Investigation of Alzheimer's Disease Brain Points to Dysregulation of Mitochondrial Aspartate Metabolism. <i>Journal of Proteome Research</i> , 2016, 15, 608-618.	3.7	107
7	The widespread role of non-enzymatic reactions in cellular metabolism. <i>Current Opinion in Biotechnology</i> , 2015, 34, 153-161.	6.6	105
8	The self-inhibitory nature of metabolic networks and its alleviation through compartmentalization. <i>Nature Communications</i> , 2017, 8, 16018.	12.8	95
9	Methionine Metabolism Alters Oxidative Stress Resistance via the Pentose Phosphate Pathway. <i>Antioxidants and Redox Signaling</i> , 2016, 24, 543-547.	5.4	93
10	Sulfate radicals enable a non-enzymatic Krebs cycle precursor. <i>Nature Ecology and Evolution</i> , 2017, 1, 83.	7.8	88
11	Inhibition of triosephosphate isomerase by phosphoenolpyruvate in the feedback-regulation of glycolysis. <i>Open Biology</i> , 2014, 4, 130232.	3.6	83
12	Molecular structural diversity of mitochondrial cardiolipins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 4158-4163.	7.1	82
13	Self-establishing communities enable cooperative metabolite exchange in a eukaryote. <i>ELife</i> , 2015, 4, .	6.0	81
14	Machine Learning Predicts the Yeast Metabolome from the Quantitative Proteome of Kinase Knockouts. <i>Cell Systems</i> , 2018, 7, 269-283.e6.	6.2	80
15	The TMEM189 gene encodes plasmalogen desaturase which introduces the characteristic vinyl ether double bond into plasmalogens. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 7792-7798.	7.1	79
16	Identification of the gene encoding alkylglycerol monooxygenase defines a third class of tetrahydrobiopterin-dependent enzymes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 13672-13677.	7.1	74
17	Regulation of ribosomal DNA amplification by the TOR pathway. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 9674-9679.	7.1	74
18	The Impact of Non-Enzymatic Reactions and Enzyme Promiscuity on Cellular Metabolism during (Oxidative) Stress Conditions. <i>Biomolecules</i> , 2015, 5, 2101-2122.	4.0	69

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19	Phospholipid Acyl Chain Diversity Controls the Tissue-Specific Assembly of Mitochondrial Cardiolipins. <i>Cell Reports</i> , 2020, 30, 4281-4291.e4.	6.4	66
20	Conditional iron and pH-dependent activity of a non-enzymatic glycolysis and pentose phosphate pathway. <i>Science Advances</i> , 2016, 2, e1501235.	10.3	65
21	A gatekeeper helix determines the substrate specificity of Sjögren-Larsson Syndrome enzyme fatty aldehyde dehydrogenase. <i>Nature Communications</i> , 2014, 5, 4439.	12.8	55
22	Ergothioneine Biosynthesis and Functionality in the Opportunistic Fungal Pathogen, <i>Aspergillus fumigatus</i> . <i>Scientific Reports</i> , 2016, 6, 35306.	3.3	55
23	Tetrahydrobiopterin and alkylglycerol monooxygenase substantially alter the murine macrophage lipidome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 2431-2436.	7.1	50
24	Hyperpolarized [ <sup>2</sup> H, <sup>13</sup> C]Glucose reports on glycolytic and pentose phosphate pathway activity in EL4 tumors and glycolytic activity in yeast cells. <i>Magnetic Resonance in Medicine</i> , 2015, 74, 1543-1547.	3.0	38
25	Unequivocal Mapping of Molecular Ether Lipid Species by LC-MS/MS in Plasmalogen-Deficient Mice. <i>Analytical Chemistry</i> , 2020, 92, 11268-11276.	6.5	33
26	Structural Evidence for a Role of the Multi-functional Human Glycoprotein Afamin in Wnt Transport. <i>Structure</i> , 2017, 25, 1907-1915.e5.	3.3	29
27	The metabolic growth limitations of petite cells lacking the mitochondrial genome. <i>Nature Metabolism</i> , 2021, 3, 1521-1535.	11.9	29
28	A proteomic survival predictor for COVID-19 patients in intensive care. , 2022, 1, e0000007.		28
29	Genotype and phenotype variability in Sjögren-Larsson syndrome. <i>Human Mutation</i> , 2019, 40, 177-186.	2.5	26
30	PUFA-Induced Metabolic Enteritis as a Fuel for Crohn's Disease. <i>Gastroenterology</i> , 2022, 162, 1690-1704.	1.3	24
31	Monitoring of fatty aldehyde dehydrogenase by formation of pyrenedecanoic acid from pyrenedecanal. <i>Journal of Lipid Research</i> , 2010, 51, 1554-1559.	4.2	22
32	Membrane Sphingolipids Regulate the Fitness and Antifungal Protein Susceptibility of <i>Neurospora crassa</i> . <i>Frontiers in Microbiology</i> , 2019, 10, 605.	3.5	22
33	The prognostic value of additional copies of 1q21 in multiple myeloma depends on the primary genetic event. <i>American Journal of Hematology</i> , 2020, 95, 1562-1571.	4.1	20
34	Glycerol ether monooxygenase resembles aromatic amino acid hydroxylases in metal ion and tetrahydrobiopterin dependence. <i>Biological Chemistry</i> , 2009, 390, 3-10.	2.5	19
35	The Emerging Physiological Role of AGMO 10 Years after Its Gene Identification. <i>Life</i> , 2021, 11, 88.	2.4	19
36	Catalytic residues and a predicted structure of tetrahydrobiopterin-dependent alkylglycerol mono-oxygenase. <i>Biochemical Journal</i> , 2012, 443, 279-286.	3.7	18

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37	Studying fatty aldehyde metabolism in living cells with pyrene-labeled compounds. <i>Journal of Lipid Research</i> , 2012, 53, 1410-1416.	4.2	17
38	A novel assay for the introduction of the vinyl ether double bond into plasmalogens using pyrene-labeled substrates. <i>Journal of Lipid Research</i> , 2018, 59, 901-909.	4.2	17
39	Fatty acyl availability modulates cardiolipin composition and alters mitochondrial function in HeLa cells. <i>Journal of Lipid Research</i> , 2021, 62, 100111.	4.2	14
40	Targeted metabolomic analysis of serum phospholipid and acylcarnitine in the adult Fontan patient with a dominant left ventricle. <i>Therapeutic Advances in Chronic Disease</i> , 2020, 11, 204062232091603.	2.5	14
41	Remission of obesity and insulin resistance is not sufficient to restore mitochondrial homeostasis in visceral adipose tissue. <i>Redox Biology</i> , 2022, 54, 102353.	9.0	14
42	When the genome bluffs: a tandem duplication event during generation of a novel Agmo knockout mouse model fools routine genotyping. <i>Cell and Bioscience</i> , 2021, 11, 54.	4.8	12
43	Tricky Isomers – The Evolution of Analytical Strategies to Characterize Plasmalogens and Plasmalogen Ether Lipids. <i>Frontiers in Cell and Developmental Biology</i> , 2022, 10, 864716.	3.7	12
44	Fatal attraction – The role of hypoxia when alpha-synuclein gets intimate with mitochondria. <i>Neurobiology of Aging</i> , 2021, 107, 128-141.	3.1	11
45	CHD1 controls H3.3 incorporation in adult brain chromatin to maintain metabolic homeostasis and normal lifespan. <i>Cell Reports</i> , 2021, 37, 109769.	6.4	10
46	A haploproficient interaction of the transaldolase paralogue NQM1 with the transcription factor VHR1 affects stationary phase survival and oxidative stress resistance. <i>BMC Genetics</i> , 2015, 16, 13.	2.7	7
47	The lipid environment modulates cardiolipin and phospholipid constitution in wild type and tafazzin-deficient cells. <i>Journal of Inherited Metabolic Disease</i> , 2022, 45, 38-50.	3.6	7
48	<sup>1</sup> H-NMR as implemented in several origin of life studies artificially implies the absence of metabolism-like non-enzymatic reactions by being signal-suppressed. <i>Wellcome Open Research</i> , 0, 2, 52.	1.8	6
49	Reply to – Do sulfate radicals really enable a non-enzymatic Krebs cycle precursor? – <i>Nature Ecology and Evolution</i> , 2019, 3, 139-140.	7.8	5
50	Biochemical Characterization of AGMO Variants Implicated in Relapses in Visceral Leishmaniasis. <i>Journal of Infectious Diseases</i> , 2018, 217, 1846-1847.	4.0	4
51	Interpreting phospholipid and cardiolipin profiles in rare mitochondrial diseases. <i>Current Opinion in Systems Biology</i> , 2021, 28, 100383.	2.6	4
52	Fatty aldehyde dehydrogenase, the enzyme downstream of tetrahydrobiopterin-dependent alkylglycerol monooxygenase. <i>Pteridines</i> , 2013, 24, 105-109.	0.5	3
53	Primordial Krebs-cycle-like non-enzymatic reactions detected by mass spectrometry and nuclear magnetic resonance. <i>Wellcome Open Research</i> , 0, 2, 52.	1.8	3
54	Amino Acid and Phospholipid Metabolism as an Indicator of Inflammation and Subtle Cardiomyopathy in Patients with Marfan Syndrome. <i>Metabolites</i> , 2021, 11, 805.	2.9	2

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55	Expression of full-length human alkylglycerol monooxygenase and fragments in Escherichia coli. Pteridines, 2013, 24, 111-115.	0.5	1
56	First insights into structure-function relationships of alkylglycerol monooxygenase. Pteridines, 2013, 24, 99-103.	0.5	1
57	Adaptations of the 3T3-L1 adipocyte lipidome to defective ether lipid catabolism upon Agmo knockdown. Journal of Lipid Research, 2022, 63, 100222.	4.2	1
58	Novel ALDH3A2 mutations in structural and functional domains of FALDH causing diverse clinical phenotypes in Sjögren-Larsson syndrome patients. Human Mutation, 2021, 42, 1015-1029.	2.5	0