

# Peter Vangheluwe

## List of Publications by Year in descending order

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79  
papers

3,275  
citations

109264

35  
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168321

53  
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81  
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81  
docs citations

81  
times ranked

4775  
citing authors

#	ARTICLE	IF	CITATIONS
1	ATP13A2 deficiency disrupts lysosomal polyamine export. <i>Nature</i> , 2020, 578, 419-424.	13.7	193
2	Modulating sarco(endo)plasmic reticulum Ca <sup>2+</sup> ATPase 2 (SERCA2) activity: Cell biological implications. <i>Cell Calcium</i> , 2005, 38, 291-302.	1.1	177
3	The Ca <sup>2+</sup> Pumps of the Endoplasmic Reticulum and Golgi Apparatus. <i>Cold Spring Harbor Perspectives in Biology</i> , 2011, 3, a004184-a004184.	2.3	173
4	Loss-of-function mutations in the <i>ATP13A2/PARK9</i> gene cause complicated hereditary spastic paraplegia (SPG78). <i>Brain</i> , 2017, 140, 287-305.	3.7	135
5	<i>LRRK2</i> mutations impair depolarization-induced mitophagy through inhibition of mitochondrial accumulation of RAB10. <i>Autophagy</i> , 2020, 16, 203-222.	4.3	124
6	Sarcolipin and phospholamban mRNA and protein expression in cardiac and skeletal muscle of different species. <i>Biochemical Journal</i> , 2005, 389, 151-159.	1.7	121
7	Necroptosis in Immuno-Oncology and Cancer Immunotherapy. <i>Cells</i> , 2020, 9, 1823.	1.8	109
8	Replacement of the Muscle-Specific Sarcoplasmic Reticulum Ca <sup>2+</sup> -ATPase Isoform SERCA2a by the Nonmuscle SERCA2b Homologue Causes Mild Concentric Hypertrophy and Impairs Contraction-Relaxation of the Heart. <i>Circulation Research</i> , 2001, 89, 838-846.	2.0	93
9	A novel approach to analyze lysosomal dysfunctions through subcellular proteomics and lipidomics: the case of NPC1 deficiency. <i>Scientific Reports</i> , 2017, 7, 41408.	1.6	93
10	A lipid switch unlocks Parkinson's disease-associated ATP13A2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 9040-9045.	3.3	87
11	Role of SIRT1 in Modulating Acetylation of the Sarco-Endoplasmic Reticulum Ca <sup>2+</sup> -ATPase in Heart Failure. <i>Circulation Research</i> , 2019, 124, e63-e80.	2.0	84
12	Intracellular Ca <sup>2+</sup> - and Mn <sup>2+</sup> -Transport ATPases. <i>Chemical Reviews</i> , 2009, 109, 4733-4759.	23.0	79
13	The lysosome as a master regulator of iron metabolism. <i>Trends in Biochemical Sciences</i> , 2021, 46, 960-975.	3.7	79
14	Cardiomyocyte Overexpression of Neuronal Nitric Oxide Synthase Delays Transition Toward Heart Failure in Response to Pressure Overload by Preserving Calcium Cycling. <i>Circulation</i> , 2008, 117, 3187-3198.	1.6	73
15	An autophagy-driven pathway of ATP secretion supports the aggressive phenotype of BRAF <sup>V600E</sup> inhibitor-resistant metastatic melanoma cells. <i>Autophagy</i> , 2017, 13, 1512-1527.	4.3	70
16	Cellular function and pathological role of ATP13A2 and related P-type transport ATPases in Parkinson's disease and other neurological disorders. <i>Frontiers in Molecular Neuroscience</i> , 2014, 7, 48.	1.4	68
17	Structural basis for the high Ca <sup>2+</sup> affinity of the ubiquitous SERCA2b Ca <sup>2+</sup> pump. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 18533-18538.	3.3	67
18	Dyslipidaemia in type II diabetic mice does not aggravate contractile impairment but increases ventricular stiffness. <i>Cardiovascular Research</i> , 2008, 77, 371-379.	1.8	66

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19	Regulation of endoplasmic reticulum Ca <sup>2+</sup> oscillations in mammalian eggs. <i>Journal of Cell Science</i> , 2013, 126, 5714-24.	1.2	64
20	Sarco(endo)plasmic Reticulum Calcium ATPase (SERCA) Inhibition by Sarcolipin Is Encoded in Its Luminal Tail. <i>Journal of Biological Chemistry</i> , 2013, 288, 8456-8467.	1.6	64
21	ATP13A2-mediated endo-lysosomal polyamine export counters mitochondrial oxidative stress. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 31198-31207.	3.3	57
22	New perspectives on the role of SERCA2's Ca <sup>2+</sup> affinity in cardiac function. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2006, 1763, 1216-1228.	1.9	56
23	The Ca <sup>2+</sup> -activated cation channel TRPM4 is a negative regulator of angiotensin II-induced cardiac hypertrophy. <i>Basic Research in Cardiology</i> , 2015, 110, 43.	2.5	55
24	Primary Active Ca <sup>2+</sup> Transport Systems in Health and Disease. <i>Cold Spring Harbor Perspectives in Biology</i> , 2020, 12, a035113.	2.3	55
25	A SERCA2 pump with an increased Ca <sup>2+</sup> affinity can lead to severe cardiac hypertrophy, stress intolerance and reduced life span. <i>Journal of Molecular and Cellular Cardiology</i> , 2006, 41, 308-317.	0.9	54
26	Sarcoplasmic reticulum calcium uptake and speed of relaxation are depressed in nebulin <sup>-/-</sup> skeletal muscle. <i>FASEB Journal</i> , 2008, 22, 2912-2919.	0.2	54
27	ATP13A2/PARK9 regulates endo-/lysosomal cargo sorting and proteostasis through a novel PI(3, Tj ETQq1 1 0.784314 rgBT /Overlock	1.4	48
28	ATP13A3 is a major component of the enigmatic mammalian polyamine transport system. <i>Journal of Biological Chemistry</i> , 2021, 296, 100182.	1.6	48
29	Parkinson disease related ATP13A2 evolved early in animal evolution. <i>PLoS ONE</i> , 2018, 13, e0193228.	1.1	47
30	Mutated ATP10B increases Parkinson <sup>TM</sup> s disease risk by compromising lysosomal glucosylceramide export. <i>Acta Neuropathologica</i> , 2020, 139, 1001-1024.	3.9	46
31	Evaluation of manganese uptake and toxicity in mouse brain during continuous MnCl <sub>2</sub> administration using osmotic pumps. <i>Contrast Media and Molecular Imaging</i> , 2012, 7, 426-434.	0.4	44
32	Factors controlling the activity of the SERCA2a pump in the normal and failing heart. <i>BioFactors</i> , 2009, 35, 484-499.	2.6	40
33	Towards defining the substrate of orphan P5A-ATPases. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2015, 1850, 524-535.	1.1	40
34	Ca <sup>2+</sup> transport ATPase isoforms SERCA2a and SERCA2b are targeted to the same sites in the murine heart. <i>Cell Calcium</i> , 2003, 34, 457-464.	1.1	39
35	BNIP3 promotes HIF <sup>1</sup> -driven melanoma growth by curbing intracellular iron homeostasis. <i>EMBO Journal</i> , 2021, 40, e106214.	3.5	38
36	Structures of the heart specific <sc>SERCA</sc> 2a Ca <sup>2+</sup> â€•<sc>ATP</sc> ase. <i>EMBO Journal</i> , 2019, 38, .	3.5	37

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37	The secretory pathway Ca <sup>2+</sup> -ATPase 1 is associated with cholesterol-rich microdomains of human colon adenocarcinoma cells. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2010, 1798, 1512-1521.	1.4	30
38	SPCA2 couples Ca <sup>2+</sup> influx via Orai1 to Ca <sup>2+</sup> uptake into the Golgi/secretory pathway. <i>Tissue and Cell</i> , 2017, 49, 141-149.	1.0	28
39	Ca <sup>2+</sup> Uptake by the Sarcoplasmic Reticulum in Ventricular Myocytes of the SERCA2 b/b Mouse Is Impaired at Higher Ca <sup>2+</sup> Loads Only. <i>Circulation Research</i> , 2003, 92, 881-887.	2.0	26
40	The expression of the neonatal sarcoplasmic reticulum Ca <sup>2+</sup> pump (SERCA1b) hints to a role in muscle growth and development. <i>Cell Calcium</i> , 2007, 41, 379-388.	1.1	26
41	Store-independent coupling between the Secretory Pathway Ca <sup>2+</sup> transport ATPase SPCA1 and Orai1 in Golgi stress and Hailey-Hailey disease. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2018, 1865, 855-862.	1.9	23
42	DPB162-AE, an inhibitor of store-operated Ca <sup>2+</sup> entry, can deplete the endoplasmic reticulum Ca <sup>2+</sup> store. <i>Cell Calcium</i> , 2017, 62, 60-70.	1.1	21
43	Structure/activity relationship of thapsigargin inhibition on the purified Golgi/secretory pathway Ca <sup>2+</sup> /Mn <sup>2+</sup> -transport ATPase (SPCA1a). <i>Journal of Biological Chemistry</i> , 2017, 292, 6938-6951.	1.6	20
44	CHCHD2 harboring Parkinson's disease-linked T611 mutation precipitates inside mitochondria and induces precipitation of wild-type CHCHD2. <i>Human Molecular Genetics</i> , 2020, 29, 1096-1106.	1.4	20
45	Increased phospholamban phosphorylation limits the force-frequency response in the <i>MLP</i> mouse with heart failure. <i>Journal of Molecular and Cellular Cardiology</i> , 2006, 40, 350-360.	0.9	18
46	Transmembrane Helix 11 Is a Genuine Regulator of the Endoplasmic Reticulum Ca <sup>2+</sup> Pump and Acts as a Functional Parallel of $\beta$ -Subunit on $\text{Na}^+$ , $\text{K}^+$ -ATPase. <i>Journal of Biological Chemistry</i> , 2012, 287, 19876-19885.	1.6	18
47	Protection against Mitochondrial and Metal Toxicity Depends on Functional Lipid Binding Sites in ATP13A2. <i>Parkinson's Disease</i> , 2016, 2016, 1-11.	0.6	18
48	Dimethyl fumarate alters intracellular Ca <sup>2+</sup> handling in immune cells by redox-mediated pleiotropic effects. <i>Free Radical Biology and Medicine</i> , 2019, 141, 338-347.	1.3	18
49	Ca <sup>2+</sup> Induces Spontaneous Dephosphorylation of a Novel P5A-type ATPase. <i>Journal of Biological Chemistry</i> , 2012, 287, 28336-28348.	1.6	17
50	Distinct Roles of the C-terminal 11th Transmembrane Helix and Luminal Extension in the Partial Reactions Determining the High Ca <sup>2+</sup> Affinity of Sarco(endo)plasmic Reticulum Ca <sup>2+</sup> -ATPase Isoform 2b (SERCA2b). <i>Journal of Biological Chemistry</i> , 2012, 287, 39460-39469.	1.6	17
51	ATP13A2 Regulates Cellular $\alpha$ -Synuclein Multimerization, Membrane Association, and Externalization. <i>International Journal of Molecular Sciences</i> , 2021, 22, 2689.	1.8	16
52	Tight interplay between the Ca <sup>2+</sup> affinity of the cardiac SERCA2 Ca <sup>2+</sup> pump and the SERCA2 expression level. <i>Cell Calcium</i> , 2007, 42, 281-289.	1.1	15
53	Targeting Sarcoplasmic Reticulum Ca <sup>2+</sup> Uptake to Improve Heart Failure. <i>Circulation Research</i> , 2010, 106, 230-233.	2.0	15
54	An N-terminal Ca <sup>2+</sup> -binding motif regulates the secretory pathway Ca <sup>2+</sup> /Mn <sup>2+</sup> -transport ATPase SPCA1. <i>Journal of Biological Chemistry</i> , 2019, 294, 7878-7891.	1.6	14

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55	Modeling Ca <sup>2+</sup> Dynamics of Mouse Cardiac Cells Points to a Critical Role of SERCA's Affinity for Ca <sup>2+</sup> . <i>Biophysical Journal</i> , 2011, 100, 1216-1225.	0.2	12
56	Thapsigargin affinity purification of intracellular P2A-type Ca <sup>2+</sup> ATPases. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2011, 1813, 1118-1127.	1.9	11
57	Phospholamban ablation in hearts expressing the high affinity SERCA2b isoform normalizes global Ca <sup>2+</sup> homeostasis but not Ca <sup>2+</sup> -dependent hypertrophic signaling. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012, 302, H2574-H2582.	1.5	11
58	Unlocking ATP13A2/PARK9 activity. <i>Cell Cycle</i> , 2015, 14, 3341-3342.	1.3	11
59	Food restriction in obese dyslipidaemic diabetic mice partially restores basal contractility but not contractile reserve. <i>European Journal of Heart Failure</i> , 2009, 11, 1118-1125.	2.9	10
60	Improving cardiac Ca <sup>2+</sup> transport into the sarcoplasmic reticulum in heart failure: lessons from the ubiquitous SERCA2b Ca <sup>2+</sup> pump. <i>Biochemical Society Transactions</i> , 2011, 39, 781-787.	1.6	10
61	The endoplasmic reticulum Ca <sup>2+</sup> -ATPase SERCA2b is upregulated in activated microglia and its inhibition causes opposite effects on migration and phagocytosis. <i>Glia</i> , 2021, 69, 842-857.	2.5	10
62	Inter-organellar Communication in Parkinson's and Alzheimer's Disease: Looking Beyond Endoplasmic Reticulum-Mitochondria Contact Sites. <i>Frontiers in Neuroscience</i> , 0, 16, .	1.4	10
63	Negative chronotropism, positive inotropism and lusitropism of 3,5-di-t-butyl-4-hydroxyanisole (DTBHA) on rat heart preparations occur through reduction of RyR2 Ca <sup>2+</sup> leak. <i>Biochemical Pharmacology</i> , 2018, 155, 434-443.	2.0	9
64	High-Throughput Measurement of the Ca <sup>2+</sup> -Dependent ATPase Activity in COS Microsomes. <i>Cold Spring Harbor Protocols</i> , 2014, 2014, pdb.prot076885.	0.2	8
65	Extracellular and ER-stored Ca <sup>2+</sup> contribute to BIRD-2-induced cell death in diffuse large B-cell lymphoma cells. <i>Cell Death Discovery</i> , 2018, 4, 101.	2.0	8
66	A Darier disease mutation relieves kinetic constraints imposed by the tail of sarco(endo)plasmic reticulum Ca <sup>2+</sup> -ATPase 2b. <i>Journal of Biological Chemistry</i> , 2018, 293, 3880-3889.	1.6	7
67	Contractile Behavior of Mouse Aorta Depends on SERCA2 Isoform Distribution: Effects of Replacing SERCA2a by SERCA2b. <i>Frontiers in Physiology</i> , 2020, 11, 282.	1.3	5
68	Measuring Ca <sup>2+</sup> Pump Activity in Overexpression Systems and Cardiac Muscle Preparations. <i>Cold Spring Harbor Protocols</i> , 2014, 2014, pdb.top066134-pdb.top066134.	0.2	4
69	Measuring Ca <sup>2+</sup> -Dependent Ca <sup>2+</sup> -Uptake Activity in the Mouse Heart. <i>Cold Spring Harbor Protocols</i> , 2014, 2014, pdb.prot076893.	0.2	4
70	Increased superoxide in GCH1 mutant fibroblasts points to a dopamine-independent toxicity mechanism. <i>Parkinsonism and Related Disorders</i> , 2021, 82, 10-12.	1.1	2
71	Altered phosphorylation status of phospholamban and its contribution to the contractile dysfunction in mouse models of type II diabetes. <i>Journal of Molecular and Cellular Cardiology</i> , 2006, 40, 925-926.	0.9	1
72	Polyamine Transport Assay Using Reconstituted Yeast Membranes. <i>Bio-protocol</i> , 2021, 11, e3888.	0.2	1

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73	Regulation of Ca <sup>2+</sup> Transport ATPases by Amino- and Carboxy-Terminal Extensions: Mechanisms and (Patho)Physiological Implications. , 2016, , 243-279.		1
74	Time-Dependent Protein Thermostability Assay. Methods in Molecular Biology, 2016, 1377, 79-85.	0.4	1
75	The alkalinizing, lysosomotropic agent ML-9 induces a pH-dependent depletion of ER Ca <sup>2+</sup> stores in cellulo. Biochimica Et Biophysica Acta - Molecular Cell Research, 2022, 1869, 119308.	1.9	1
76	Food-restriction in OB/OB mice restores sarcoplasmic reticulum Ca <sup>2+</sup> uptake, but not in vivo $\beta^2$ -adrenergic responsiveness. Journal of Molecular and Cellular Cardiology, 2007, 42, S25-S26.	0.9	0
77	Structure/Function Analysis of the Ubiquitous Secretory Pathway Ca <sup>2+</sup> Pump SPCA1a. Biophysical Journal, 2014, 106, 586a.	0.2	0
78	Regulation of endoplasmic reticulum Ca <sup>2+</sup> oscillations in mammalian eggs. Development (Cambridge), 2014, 141, e207-e207.	1.2	0
79	Protein truncating mutations in ATP13A3 promote pulmonary arterial hypertension. , 2020, , .		0