Shmuel Muallem

List of Publications by Year
in descending order

125 papers	12,396 citations	18482 62 h-index	24258 110 g-index
126 all docs	126 docs citations	126 times ranked	8242 citing authors

#	ARTICLE	IF	CITATIONS
1	Functional interaction between InsP3 receptors and store-operated Htrp3 channels. Nature, 1998, 396, 478-482.	27.8	605
2	SOAR and the polybasic STIM1 domains gate and regulate Orai channels. Nature Cell Biology, 2009, 11, 337-343.	10.3	594
3	STIM1 carboxyl-terminus activates native SOC, Icrac and TRPC1 channels. Nature Cell Biology, 2006, 8, 1003-1010.	10.3	583
4	Homer Binds TRPC Family Channels and Is Required for Gating of TRPC1 by IP3 Receptors. Cell, 2003, 114, 777-789.	28.9	473
5	STIM1 heteromultimerizes TRPC channels to determine their function as store-operated channels. Nature Cell Biology, 2007, 9, 636-645.	10.3	453
6	Gating of CFTR by the STAS domain of SLC26 transporters. Nature Cell Biology, 2004, 6, 343-350.	10.3	431
7	Aberrant CFTR-dependent HCO-3 transport in mutations associated with cystic fibrosis. Nature, 2001, 410, 94-97.	27.8	362
8	Molecular Mechanism of Pancreatic and Salivary Gland Fluid and HCO₃^{âˆ’}Secretion. Physiological Reviews, 2012, 92, 39-74.	28.8	323
9	A molecular mechanism for aberrantCFTR-dependent HCO3- transport in cystic fibrosis. EMBO Journal, 2002, 21, 5662-5672.	7.8	287
10	STIM1 Gates TRPC Channels, but Not Orai1, by Electrostatic Interaction. Molecular Cell, 2008, 32, 439-448.	9.7	287
11	Polarized Expression of Ca2+ Channels in Pancreatic and Salivary Gland Cells. Journal of Biological Chemistry, 1997, 272, 15765-15770.	3.4	259
12	RGS Proteins Determine Signaling Specificity of Gq-coupled Receptors. Journal of Biological Chemistry, 1999, 274, 3549-3556.	3.4	241
13	The N-terminal Domain of RGS4 Confers Receptor-selective Inhibition of G Protein Signaling. Journal of Biological Chemistry, 1998, 273, 34687-34690.	3.4	222
14	TRPC channels as STIM1-regulated store-operated channels. Cell Calcium, 2007, 42, 205-211.	2.4	207
15	TRP-ML1 Regulates Lysosomal pH and Acidic Lysosomal Lipid Hydrolytic Activity. Journal of Biological Chemistry, 2006, 281, 7294-7301.	3.4	200
16	Polarized Expression of Ca2+ Pumps in Pancreatic and Salivary Gland Cells. Journal of Biological Chemistry, 1997, 272, 15771-15776.	3.4	173
17	The Solute Carrier 26 Family of Proteins in Epithelial Ion Transport. Physiology, 2008, 23, 104-114.	3.1	166
18	Coupling Modes and Stoichiometry of Clâˆ’/HCO3âˆ’ Exchange by slc26a3 and slc26a6. Journal of General Physiology, 2006, 127, 511-524.	1.9	165

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19	Convergent regulation of the lysosomal two-pore channel-2 by Mg2+, NAADP, PI(3,5)P2 and multiple protein kinases. EMBO Journal, 2014, 33, 501-511.	7.8	162
20	Transporter-mediated bile acid uptake causes Ca2+-dependent cell death in rat pancreatic acinar cells. Gastroenterology, 2002, 122, 1941-1953.	1.3	156
21	The Ca²⁺ Channel TRPML3 Regulates Membrane Trafficking and Autophagy. Traffic, 2009, 10, 1157-1167.	2.7	152
22	Slc26a6 regulates CFTR activity in vivo to determine pancreatic duct HCO3âˆ’ secretion: relevance to cystic fibrosis. EMBO Journal, 2006, 25, 5049-5057.	7.8	141
23	Native Store-operated Ca2+ Influx Requires the Channel Function of Orai1 and TRPC1. Journal of Biological Chemistry, 2009, 284, 9733-9741.	3.4	139
24	TRP-ML1 Is a Lysosomal Monovalent Cation Channel That Undergoes Proteolytic Cleavage. Journal of Biological Chemistry, 2005, 280, 43218-43223.	3.4	134
25	The Slc26a4 transporter functions as an electroneutral Cl^{âˆ’}/I^{âˆ’}/HCO₃^{âˆ’} exchanger: role of Slc26a4 and Slc26a6 in I^{âˆ’} and HCO₃^{âˆ’} secretion and in regulation of CFTR in the parotid duct. Journal of Physiology, 2008, 586, 3813-3824.	2.9	130
26	Molecular determinants of fast Ca ²⁺ -dependent inactivation and gating of the Orai channels. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14687-14692.	7.1	129
27	Deletion of TRPC3 in Mice Reduces Store-Operated Ca2+ Influx and the Severity of Acute Pancreatitis. Gastroenterology, 2009, 137, 1509-1517.	1.3	129
28	Orai1-Mediated Antimicrobial Secretion from Pancreatic Acini Shapes the Gut Microbiome and Regulates Gut Innate Immunity. Cell Metabolism, 2017, 25, 635-646.	16.2	127
29	An endoplasmic reticulum/plasma membrane junction: STIM1/Orai1/TRPCs. FEBS Letters, 2010, 584, 2022-2027.	2.8	125
30	Homer proteins in Ca2+ signaling by excitable and non-excitable cells. Cell Calcium, 2007, 42, 363-371.	2.4	121
31	Translocation between PI(4,5)P2-poor and PI(4,5)P2-rich microdomains during store depletion determines STIM1 conformation and Orai1 gating. Nature Communications, 2014, 5, 5843.	12.8	121
32	Lysosome signaling controls the migration of dendritic cells. Science Immunology, 2017, 2, .	11.9	119
33	SLC26A9 is a Cl^{âˆ’} channel regulated by the WNK kinases. Journal of Physiology, 2007, 584, 333-345.	2.9	116
34	Polarized but Differential Localization and Recruitment of STIM1, Orai1 and TRPC Channels in Secretory Cells. Traffic, 2011, 12, 232-245.	2.7	116
35	Diverse transport modes by the solute carrier 26 family of anion transporters. Journal of Physiology, 2009, 587, 2179-2185.	2.9	114
36	IRBIT coordinates epithelial fluid and HCO3â€“secretion by stimulating the transporters pNBC1 and CFTR in the murine pancreatic duct. Journal of Clinical Investigation, 2009, 119, 193-202.	8.2	113

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37	The STIM1 CTID domain determines access of SARAF to SOAR to regulate Orai1 channel function. Journal of Cell Biology, 2013, 202, 71-79.	5.2	110
38	Homer 1 Mediates Store- and Inositol 1,4,5-Trisphosphate Receptor-dependent Translocation and Retrieval of TRPC3 to the Plasma Membrane. Journal of Biological Chemistry, 2006, 281, 32540-32549.	3.4	108
39	SLC26A7 Is a Clâ€“ Channel Regulated by Intracellular pH. Journal of Biological Chemistry, 2005, 280, 6463-6470.	3.4	106
40	Gain-of-function Mutation in TRPML3 Causes the Mouse Varitint-Waddler Phenotype. Journal of Biological Chemistry, 2007, 282, 36138-36142.	3.4	102
41	Regulatory Interaction between the Cystic Fibrosis Transmembrane Conductance Regulator and HCO 3âˆ' Salvage Mechanisms in Model Systems and the Mouse Pancreatic Duct. Journal of Biological Chemistry, 2001, 276, 17236-17243.	3.4	100
42	Signalling specificity in GPCR-dependent Ca2+ signalling. Cellular Signalling, 2003, 15, 243-253.	3.6	100
43	Corticosteroids Correct Aberrant CFTR Localization in the Duct and Regenerate Acinar Cells in Autoimmune Pancreatitis. Gastroenterology, 2010, 138, 1988-1996.e3.	1.3	98
44	Genetic and Pharmacologic Inhibition of the Ca2+ Influx Channel TRPC3 Protects Secretory Epithelia From Ca2+-Dependent Toxicity. Gastroenterology, 2011, 140, 2107-2115.e4.	1.3	94
45	A novel mode of TRPML3 regulation by extracytosolic pH absent in the varitint-waddler phenotype. EMBO Journal, 2008, 27, 1197-1205.	7.8	92
46	IRBIT governs epithelial secretion in mice by antagonizing the WNK/SPAK kinase pathway. Journal of Clinical Investigation, 2011, 121, 956-965.	8.2	92
47	Dynamic Control of Cystic Fibrosis Transmembrane Conductance Regulator Clâˆ'/HCO3âˆ' Selectivity by External Clâ€“. Journal of Biological Chemistry, 2004, 279, 21857-21865.	3.4	91
48	Transient Receptor Potential Mucolipin 1 (TRPML1) and Two-pore Channels Are Functionally Independent Organellar Ion Channels. Journal of Biological Chemistry, 2011, 286, 22934-22942.	3.4	91
49	The Cystic Fibrosis Transmembrane Conductance Regulator Interacts with and Regulates the Activity of the HCO3âˆ' Salvage Transporter Human Na+-HCO3âˆ' Cotransport Isoform 3. Journal of Biological Chemistry, 2002, 277, 50503-50509.	3.4	87
50	Selective GÎ±i Subunits as Novel Direct Activators of Transient Receptor Potential Canonical (TRPC)4 and TRPC5 Channels. Journal of Biological Chemistry, 2012, 287, 17029-17039.	3.4	85
51	CFTR: A New Horizon in the Pathomechanism and Treatment of Pancreatitis. Reviews of Physiology, Biochemistry and Pharmacology, 2016, 170, 37-66.	1.6	82
52	Irbit Mediates Synergy Between Ca2+ and cAMP Signaling Pathways During Epithelial Transport in Mice. Gastroenterology, 2013, 145, 232-241.	1.3	81
53	Molecular Determinants Mediating Gating of Transient Receptor Potential Canonical (TRPC) Channels by Stromal Interaction Molecule 1 (STIM1). Journal of Biological Chemistry, 2014, 289, 6372-6382.	3.4	80
54	ROS and intracellular ion channels. Cell Calcium, 2016, 60, 108-114.	2.4	79

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55	HCO3âˆ’ Salvage Mechanisms in the Submandibular Gland Acinar and Duct Cells. Journal of Biological Chemistry, 2001, 276, 9808-9816.	3.4	76
56	STIM1-dependent and STIM1-independent Function of Transient Receptor Potential Canonical (TRPC) Channels Tunes Their Store-operated Mode. Journal of Biological Chemistry, 2010, 285, 38666-38673.	3.4	75
57	Membrane Potential Regulates Nicotinic Acid Adenine Dinucleotide Phosphate (NAADP) Dependence of the pH- and Ca2+-sensitive Organellar Two-pore Channel TPC1. Journal of Biological Chemistry, 2012, 287, 20407-20416.	3.4	71
58	Lipids at membrane contact sites: cell signaling and ion transport. EMBO Reports, 2017, 18, 1893-1904.	4.5	71
59	Multiple functional P2X and P2Y receptors in the luminal and basolateral membranes of pancreatic duct cells. American Journal of Physiology - Cell Physiology, 1999, 277, C205-C215.	4.6	70
60	Convergence of IRBIT, phosphatidylinositol (4,5) bisphosphate, and WNK/SPAK kinases in regulation of the Na ⁺ -HCO ₃ ^{âˆ’} cotransporters family. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4105-4110.	7.1	69
61	cAMP and Ca2+ signaling in secretory epithelia: Crosstalk and synergism. Cell Calcium, 2014, 55, 385-393.	2.4	69
62	Membrane-limited expression and regulation of Na+-H+exchanger isoforms by P2receptors in the rat submandibular gland duct. Journal of Physiology, 1998, 513, 341-357.	2.9	68
63	Correction of Ductal CFTR Activity Rescues Acinar Cell and Pancreatic and Salivary Gland Functions in Mouse Models of Autoimmune Disease. Gastroenterology, 2017, 153, 1148-1159.	1.3	63
64	Na+-dependent transporters mediate HCO3â€“ salvage across the luminal membrane of the main pancreatic duct. Journal of Clinical Investigation, 2000, 105, 1651-1658.	8.2	63
65	Na+, K+, and H+/HCO3âˆ’ Transport in Submandibular Salivary Ducts. Journal of Biological Chemistry, 1995, 270, 19599-19605.	3.4	61
66	TRPML: Transporters of metals in lysosomes essential for cell survival?. Cell Calcium, 2011, 50, 288-294.	2.4	59
67	Calcium signaling complexes in microdomains of polarized secretory cells. Cell Calcium, 2006, 40, 451-459.	2.4	58
68	SLC26A6 and NaDC-1 Transporters Interact to Regulate Oxalate and Citrate Homeostasis. Journal of the American Society of Nephrology: JASN, 2013, 24, 1617-1626.	6.1	58
69	TRPpathies. Journal of Physiology, 2007, 578, 641-653.	2.9	57
70	Intracellular Cl ^{âˆ’} as a signaling ion that potently regulates Na ⁺ /HCO3 ^{âˆ’} transporters. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E329-37.	7.1	57
71	Polarized Expression of G Protein-coupled Receptors and an All-or-None Discharge of Ca2+ Pools at Initiation Sites of [Ca2+] Waves in Polarized Exocrine Cells. Journal of Biological Chemistry, 2001, 276, 44146-44156.	3.4	56
72	A Role for the Ca2+ Channel TRPML1 in Gastric Acid Secretion, Based on Analysis of Knockout Mice. Gastroenterology, 2011, 140, 857-867.e1.	1.3	54

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73	Determinants of coupled transport and uncoupled current by the electrogenic SLC26 transporters. Journal of General Physiology, 2011, 137, 239-251.	1.9	53
74	Anoctamin 8 tethers endoplasmic reticulum and plasma membrane for assembly of Ca ²⁺ signaling complexes at the ER/PM compartment. EMBO Journal, 2019, 38, .	7.8	53
75	Regulatory Interaction between CFTR and the SLC26 Transporters. Novartis Foundation Symposium, 2008, , 177-192.	1.1	52
76	Mechanism and synergism in epithelial fluid and electrolyte secretion. Pflugers Archiv European Journal of Physiology, 2014, 466, 1487-1499.	2.8	52
77	Palmitoylation controls trafficking of the intracellular Ca²⁺ channel MCOLN3/TRPML3 to regulate autophagy. Autophagy, 2019, 15, 327-340.	9.1	50
78	When EGF is offside, magnesium is wasted. Journal of Clinical Investigation, 2007, 117, 2086-2089.	8.2	48
79	The ER/PM microdomain, PI(4,5)P2 and the regulation of STIM1â€“Orai1 channel function. Cell Calcium, 2015, 58, 342-348.	2.4	47
80	Aberrant Ca2+ handling in lysosomal storage disorders. Cell Calcium, 2010, 47, 103-111.	2.4	46
81	Solute Carrier Family 26 Member a2 (Slc26a2) Protein Functions as an Electroneutral SO42â^'/OHâ^'/Clâ^' Exchanger Regulated by Extracellular Clâ^'. Journal of Biological Chemistry, 2012, 287, 5122-5132.	3.4	43
82	Cl^{â^'}as a bona fide signaling ion. American Journal of Physiology - Cell Physiology, 2020, 318, C125-C136.	4.6	42
83	The TRPCsâ€“STIM1â€“Orai Interaction. Handbook of Experimental Pharmacology, 2014, 223, 1035-1054.	1.8	39
84	Fusion of lysosomes with secretory organelles leads to uncontrolled exocytosis in the lysosomal storage disease mucolipidosis type <scp>IV</scp>. EMBO Reports, 2016, 17, 266-278.	4.5	39
85	Functional Mapping of Ca2+ Signaling Complexes in Plasma Membrane Microdomains of Polarized Cells. Journal of Biological Chemistry, 2004, 279, 27837-27840.	3.4	37
86	Essential role of carbonic anhydrase XII in secretory gland fluid and HCO₃^{â^'} secretion revealed by disease causing human mutation. Journal of Physiology, 2015, 593, 5299-5312.	2.9	37
87	The WNK/SPAK and IRBIT/PP1 Pathways in Epithelial Fluid and Electrolyte Transport. Physiology, 2012, 27, 291-299.	3.1	36
88	Ca2+ Influx Channel Inhibitor SARAF Protects Mice From Acute Pancreatitis. Gastroenterology, 2019, 157, 1660-1672.e2.	1.3	33
89	STIM-TRP Pathways and Microdomain Organization: Ca2+ Influx Channels: The Orai-STIM1-TRPC Complexes. Advances in Experimental Medicine and Biology, 2017, 993, 139-157.	1.6	31
90	Regulatory interaction between CFTR and the SLC26 transporters. Novartis Foundation Symposium, 2006, 273, 177-86; discussion 186-92, 261-4.	1.1	31

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91	Multiple Roles of the SO42âˆ’/Clâˆ’/OHâˆ’ Exchanger Protein Slc26a2 in Chondrocyte Functions. Journal of Biological Chemistry, 2014, 289, 1993-2001.	3.4	30
92	Ca2+ influx at the ER/PM junctions. Cell Calcium, 2017, 63, 29-32.	2.4	30
93	Lysosomal Ca2+ Signaling is Essential for Osteoclastogenesis and Bone Remodeling. Journal of Bone and Mineral Research, 2017, 32, 385-396.	2.8	30
94	Systemic Succinate Homeostasis and Local Succinate Signaling Affect Blood Pressure and Modify Risks for Calcium Oxalate Lithogenesis. Journal of the American Society of Nephrology: JASN, 2019, 30, 381-392.	6.1	30
95	IRBIT: It Is Everywhere. Neurochemical Research, 2011, 36, 1166-1174.	3.3	29
96	Transient Receptor Potential Canonical Type 3 Channels Control the Vascular Contractility of Mouse Mesenteric Arteries. PLoS ONE, 2014, 9, e110413.	2.5	26
97	Exosomal release through TRPML1-mediated lysosomal exocytosis is required for adipogenesis. Biochemical and Biophysical Research Communications, 2019, 510, 409-415.	2.1	25
98	The intracellular Ca²⁺channels of membrane traffic. Channels, 2012, 6, 344-351.	2.8	24
99	Homer2 Protein Regulates Plasma Membrane Ca2+-ATPase-mediated Ca2+ Signaling in Mouse Parotid Gland Acinar Cells. Journal of Biological Chemistry, 2014, 289, 24971-24979.	3.4	23
100	Properties of the TRPML3 Channel Pore and Its Stable Expansion by the Varitint-Waddler-causing Mutation. Journal of Biological Chemistry, 2010, 285, 16513-16520.	3.4	22
101	Orai1 and STIM1 in ER/PM junctions: roles in pancreatic cell function and dysfunction. American Journal of Physiology - Cell Physiology, 2016, 310, C414-C422.	4.6	18
102	Modulation of Cl ^{âˆ’} signaling and ion transport by recruitment of kinases and phosphatases mediated by the regulatory protein IRBIT. Science Signaling, 2018, 11, .	3.6	16
103	The TRPCs, Orais and STIMs in ER/PM Junctions. Advances in Experimental Medicine and Biology, 2016, 898, 47-66.	1.6	15
104	Homer2 and Homer3 modulate RANKL-induced NFATc1 signaling in osteoclastogenesis and bone metabolism. Journal of Endocrinology, 2019, 242, 241-249.	2.6	15
105	TRPC3 channel gating by lipids requires localization at the ER/PM junctions defined by STIM1. Journal of Cell Biology, 2022, 221, .	5.2	13
106	Dissociation between parathyroid hormone-stimulated cAMP and calcium increase in UMR-106-01 cells. Journal of Cellular Physiology, 1992, 152, 520-528.	4.1	12
107	Ca²⁺ Signaling in Exocrine Cells. Cold Spring Harbor Perspectives in Biology, 2020, 12, a035279.	5.5	11
108	CRAC channels in secretory epithelial cell function and disease. Cell Calcium, 2019, 78, 48-55.	2.4	9

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109	ROS and Ca 2+ â€”Partners in sickness and in health. Cell Calcium, 2016, 60, 51-54.	2.4	7
110	Decoding Ca2+ signals. Journal of Cell Biology, 2005, 170, 173-175.	5.2	6
111	How does NAADP release lysosomal Ca²⁺?. Channels, 2014, 8, 174-175.	2.8	6
112	TRPML1 as lysosomal fusion guard. Channels, 2016, 10, 261-263.	2.8	5
113	Oncogenes calling on a lysosomal Ca 2+ channel. EMBO Reports, 2019, 20, .	4.5	5
114	Calcium Signaling: Pyruvate and CRAC Meet at the Crossroads. Current Biology, 2007, 17, R549-R551.	3.9	4
115	ROS in Ca2+ signaling and disease-part 2. Cell Calcium, 2016, 60, 153-154.	2.4	2
116	The CAR that drives Ca ²⁺ to Orai1. Science Signaling, 2016, 9, fs5.	3.6	2
117	Properties and Function of the Solute Carrier 26 Family of Anion Transporters. , 2016, , 465-489.		1
118	Opening the Orai1 gates. Science Signaling, 2017, 10, .	3.6	1
119	No Zoom Required: Meeting at the Î²-Intercalated Cells. Journal of the American Society of Nephrology: JASN, 2020, 31, 1655-1657.	6.1	1
120	Receptor-specific Ca2+ signaling in polarized cells. Journal of Korean Medical Science, 2000, 15, S46.	2.5	0
121	CFTR does it again: control of insulin secretion. Science China Life Sciences, 2014, 57, 1046-1046.	4.9	0
122	The forefront of technology of science: Methods for monitoring cell function. Cell Calcium, 2017, 64, 1-2.	2.4	0
123	<scp>CFTR</scp> is not a gluten lover either. EMBO Journal, 2019, 38, .	7.8	0
124	IRBIT regulates the WNK/SPAK pathway. FASEB Journal, 2010, 24, 1002.19.	0.5	0
125	Molecular Determinants of TRPC Channels Gating by STIM1. FASEB Journal, 2013, 27, 729.8.	0.5	0