

Lonny R Levin

List of Publications by Year in descending order

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94
papers

8,954
citations

57631

44
h-index

49773

87
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97
docs citations

97
times ranked

6089
citing authors

#	ARTICLE	IF	CITATIONS
1	Bicarbonate, carbon dioxide and pH sensing via mammalian bicarbonate-regulated soluble adenylyl cyclase. <i>Interface Focus</i> , 2021, 11, 20200034.	1.5	19
2	Soluble adenylyl cyclase regulates the cytosolic NADH/NAD ⁺ redox state and the bioenergetic switch between glycolysis and oxidative phosphorylation. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2021, 1862, 148367.	0.5	12
3	Discovery of TDI-10229: A Potent and Orally Bioavailable Inhibitor of Soluble Adenylyl Cyclase (sAC,) Tj ETQq1 1 0.784314 rgBT /Over 1.3 16	1.3	16
4	Soluble adenylyl cyclase inhibition prevents human sperm functions essential for fertilization. <i>Molecular Human Reproduction</i> , 2021, 27, .	1.3	26
5	Capacitation increases glucose consumption in murine sperm. <i>Molecular Reproduction and Development</i> , 2020, 87, 1037-1047.	1.0	27
6	Using an Extracellular Flux Analyzer to Measure Changes in Glycolysis and Oxidative Phosphorylation during Mouse Sperm Capacitation. <i>Journal of Visualized Experiments</i> , 2020, , .	0.2	9
7	Metabolic changes in mouse sperm during capacitation. <i>Biology of Reproduction</i> , 2020, 103, 791-801.	1.2	50
8	Cholesterol Stabilizes TAZ in Hepatocytes to Promote Experimental Non-alcoholic Steatohepatitis. <i>Cell Metabolism</i> , 2020, 31, 969-986.e7.	7.2	117
9	Optimization of lead compounds into on-demand, nonhormonal contraceptives: leveraging a public-private drug discovery institute collaboration. <i>Biology of Reproduction</i> , 2020, 103, 176-182.	1.2	18
10	Transient Sperm Starvation Improves the Outcome of Assisted Reproductive Technologies. <i>Frontiers in Cell and Developmental Biology</i> , 2019, 7, 262.	1.8	32
11	Mammalian pigmentation is regulated by a distinct cAMP-dependent mechanism that controls melanosome pH. <i>Science Signaling</i> , 2018, 11, .	1.6	28
12	Pharmacological modulation of the CO ₂ /HCO ₃ ⁻ /pH-, calcium-, and ATP-sensing soluble adenylyl cyclase. , 2018, 190, 173-186.		46
13	Distinct intracellular sAC-cAMP domains regulate ER calcium signaling and OXPHOS function. <i>Journal of Cell Science</i> , 2017, 130, 3713-3727.	1.2	28
14	Differential Intraocular Pressure Measurements by Tonometry and Direct Cannulation After Treatment with Soluble Adenylyl Cyclase Inhibitors. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2017, 33, 574-581.	0.6	13
15	Soluble adenylyl cyclase is essential for proper lysosomal acidification. <i>Journal of General Physiology</i> , 2016, 148, 325-339.	0.9	32
16	Discovery of LRE1 as a specific and allosteric inhibitor of soluble adenylyl cyclase. <i>Nature Chemical Biology</i> , 2016, 12, 838-844.	3.9	74
17	Transient exposure to calcium ionophore enables in vitro fertilization in sterile mouse models. <i>Scientific Reports</i> , 2016, 6, 33589.	1.6	40
18	Bithionol Potently Inhibits Human Soluble Adenylyl Cyclase through Binding to the Allosteric Activator Site. <i>Journal of Biological Chemistry</i> , 2016, 291, 9776-9784.	1.6	25

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19	The metabolic/pH sensor soluble adenylyl cyclase is a tumor suppressor protein. <i>Oncotarget</i> , 2016, 7, 45597-45607.	0.8	19
20	Endothelial CD99 signals through soluble adenylyl cyclase and PKA to regulate leukocyte transendothelial migration. <i>Journal of Experimental Medicine</i> , 2015, 212, 1021-1041.	4.2	92
21	Physiological Roles of Acid-Base Sensors. <i>Annual Review of Physiology</i> , 2015, 77, 347-362.	5.6	75
22	Endothelial CD99 Signals Through Soluble Adenylyl Cyclase and PKA to Regulate Leukocyte Transendothelial Migration. <i>FASEB Journal</i> , 2015, 29, 285.1.	0.2	0
23	Nonpigmented Ciliary Epithelial Cells Respond to Acetazolamide by a Soluble Adenylyl Cyclase Mechanism. , 2014, 55, 187.		9
24	A Soluble Adenylyl Cyclase Form Targets to Axonemes and Rescues Beat Regulation in Soluble Adenylyl Cyclase Knockout Mice. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2014, 51, 750-760.	1.4	28
25	The role of soluble adenylyl cyclase in health and disease. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2014, 1842, 2533-2534.	1.8	5
26	CO ₂ /HCO ₃ ²⁻ and calcium-regulated soluble adenylyl cyclase as a physiological ATP sensor.. <i>Journal of Biological Chemistry</i> , 2014, 289, 12679.	1.6	0
27	Crystal structures of human soluble adenylyl cyclase reveal mechanisms of catalysis and of its activation through bicarbonate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 3727-3732.	3.3	113
28	A mitochondrial CO ₂ -adenylyl cyclase-cAMP signalosome controls yeast normoxic cytochrome c oxidase activity. <i>FASEB Journal</i> , 2014, 28, 4369-4380.	0.2	35
29	Soluble Adenylyl Cyclase Is Necessary and Sufficient to Overcome the Block of Axonal Growth by Myelin-Associated Factors. <i>Journal of Neuroscience</i> , 2014, 34, 9281-9289.	1.7	22
30	CO ₂ /HCO ₃ ²⁻ and Calcium-regulated Soluble Adenylyl Cyclase as a Physiological ATP Sensor. <i>Journal of Biological Chemistry</i> , 2013, 288, 33283-33291.	1.6	108
31	Compartmentalization of Distinct cAMP Signaling Pathways in Mammalian Sperm. <i>Journal of Biological Chemistry</i> , 2013, 288, 35307-35320.	1.6	88
32	Neuronal expression of soluble adenylyl cyclase in the mammalian brain. <i>Brain Research</i> , 2013, 1518, 1-8.	1.1	46
33	Pharmacological Distinction between Soluble and Transmembrane Adenylyl Cyclases. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2013, 347, 589-598.	1.3	82
34	pH sensing via bicarbonate-regulated soluble adenylyl cyclase (sAC). <i>Frontiers in Physiology</i> , 2013, 4, 343.	1.3	38
35	cAMP and Mitochondria. <i>Physiology</i> , 2013, 28, 199-209.	1.6	129
36	Identification of a haem domain in human soluble adenylyl cyclase. <i>Bioscience Reports</i> , 2012, 32, 491-499.	1.1	21

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37	Role of soluble adenylyl cyclase in the heart. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012, 302, H538-H543.	1.5	26
38	Crystal Structure and Regulation Mechanisms of the CyaB Adenylyl Cyclase from the Human Pathogen <i>Pseudomonas aeruginosa</i> . <i>Journal of Molecular Biology</i> , 2012, 416, 271-286.	2.0	36
39	Metabolic Communication between Astrocytes and Neurons via Bicarbonate-Responsive Soluble Adenylyl Cyclase. <i>Neuron</i> , 2012, 75, 1094-1104.	3.8	225
40	Characterization of <i>Plasmodium falciparum</i> Adenylyl Cyclase- β^2 and Its Role in Erythrocytic Stage Parasites. <i>PLoS ONE</i> , 2012, 7, e39769.	1.1	24
41	Activation of Soluble Adenylyl Cyclase Protects against Secretagogue Stimulated Zymogen Activation in Rat Pancreatic Acinar Cells. <i>PLoS ONE</i> , 2012, 7, e41320.	1.1	14
42	Intracellular cAMP signaling by soluble adenylyl cyclase. <i>Kidney International</i> , 2011, 79, 1277-1288.	2.6	176
43	The Quorum-Sensing Molecules Farnesol/Homoserine Lactone and Dodecanol Operate via Distinct Modes of Action in <i>Candida albicans</i> . <i>Eukaryotic Cell</i> , 2011, 10, 1034-1042.	3.4	115
44	The Soluble Guanylyl Cyclase Activator YC-1 Increases Intracellular cGMP and cAMP via Independent Mechanisms in INS-1E Cells. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2011, 338, 925-931.	1.3	6
45	A Phosphodiesterase 2A Isoform Localized to Mitochondria Regulates Respiration. <i>Journal of Biological Chemistry</i> , 2011, 286, 30423-30432.	1.6	115
46	Gastric Inhibitory Peptide Controls Adipose Insulin Sensitivity via Activation of cAMP-response Element-binding Protein and p110 β^2 Isoform of Phosphatidylinositol 3-Kinase. <i>Journal of Biological Chemistry</i> , 2011, 286, 43062-43070.	1.6	44
47	Regulation of Anterior Chamber Drainage by Bicarbonate-sensitive Soluble Adenylyl Cyclase in the Ciliary Body. <i>Journal of Biological Chemistry</i> , 2011, 286, 41353-41358.	1.6	40
48	Physiological Sensing of Carbon Dioxide/Bicarbonate/pH via Cyclic Nucleotide Signaling. <i>Sensors</i> , 2011, 11, 2112-2128.	2.1	38
49	Physiological carbon dioxide, bicarbonate, and pH sensing. <i>Pflügers Archiv European Journal of Physiology</i> , 2010, 460, 953-964.	1.3	100
50	Bicarbonate-sensing soluble adenylyl cyclase is an essential sensor for acid/base homeostasis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 442-447.	3.3	85
51	CO ₂ Acts as a Signalling Molecule in Populations of the Fungal Pathogen <i>Candida albicans</i> . <i>PLoS Pathogens</i> , 2010, 6, e1001193.	2.1	104
52	Modulation of NaCl absorption by [HCO ₃ ⁻] in the marine teleost intestine is mediated by soluble adenylyl cyclase. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2010, 299, R62-R71.	0.9	51
53	Soluble Adenylyl Cyclase Defines a Nuclear cAMP Microdomain in Keratinocyte Hyperproliferative Skin Diseases. <i>Journal of Investigative Dermatology</i> , 2010, 130, 1279-1287.	0.3	45
54	Regulation of Epithelial Na ⁺ Transport by Soluble Adenylyl Cyclase in Kidney Collecting Duct Cells. <i>Journal of Biological Chemistry</i> , 2009, 284, 5774-5783.	1.6	47

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55	Cyclic AMP Produced inside Mitochondria Regulates Oxidative Phosphorylation. <i>Cell Metabolism</i> , 2009, 9, 265-276.	7.2	422
56	“Soluble” adenylyl cyclase-generated cyclic adenosine monophosphate promotes fast migration in PC12 cells. <i>Journal of Neuroscience Research</i> , 2008, 86, 118-124.	1.3	12
57	Structure-Based Development of Novel Adenylyl Cyclase Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2008, 51, 4456-4464.	2.9	33
58	Glucose and GLP-1 Stimulate cAMP Production via Distinct Adenylyl Cyclases in INS-1E Insulinoma Cells. <i>Journal of General Physiology</i> , 2008, 132, 329-338.	0.9	104
59	Somatic “Soluble” Adenylyl Cyclase Isoforms Are Unaffected in Sacytm1Lex/Sacytm1Lex “Knockout” Mice. <i>PLoS ONE</i> , 2008, 3, e3251.	1.1	67
60	Novel Regulation of the Epithelial Na ⁺ Channel by Soluble Adenylyl Cyclase in Kidney Collecting Duct Cells. <i>FASEB Journal</i> , 2008, 22, 934.3.	0.2	0
61	Glucose and GLP-1 Stimulate cAMP Production via Distinct Adenylyl Cyclases in INS-1E Insulinoma Cells. <i>Journal of Cell Biology</i> , 2008, 182, i10-i10.	2.3	0
62	Soluble Adenylyl Cyclase Is Localized to Cilia and Contributes to Ciliary Beat Frequency Regulation via Production of cAMP. <i>Journal of General Physiology</i> , 2007, 130, 99-109.	0.9	99
63	Particulate and soluble adenylyl cyclases participate in the sperm acrosome reaction. <i>Biochemical and Biophysical Research Communications</i> , 2007, 358, 1128-1135.	1.0	45
64	Molecular Details of cAMP Generation in Mammalian Cells: A Tale of Two Systems. <i>Journal of Molecular Biology</i> , 2006, 362, 623-639.	2.0	284
65	Soluble adenylyl cyclase is required for netrin-1 signaling in nerve growth cones. <i>Nature Neuroscience</i> , 2006, 9, 1257-1264.	7.1	89
66	Autoinhibitory regulation of soluble adenylyl cyclase. <i>Molecular Reproduction and Development</i> , 2006, 73, 361-368.	1.0	50
67	<i>Cryptococcus neoformans</i> Senses CO ₂ through the Carbonic Anhydrase Can2 and the Adenylyl Cyclase Cac1. <i>Eukaryotic Cell</i> , 2006, 5, 103-111.	3.4	156
68	Soluble Adenylyl Cyclase Mediates Nerve Growth Factor-induced Activation of Rap1. <i>Journal of Biological Chemistry</i> , 2006, 281, 17253-17258.	1.6	64
69	Bicarbonate activation of adenylyl cyclase via promotion of catalytic active site closure and metal recruitment. <i>Nature Structural and Molecular Biology</i> , 2005, 12, 32-37.	3.6	149
70	Fungal Adenylyl Cyclase Integrates CO ₂ Sensing with cAMP Signaling and Virulence. <i>Current Biology</i> , 2005, 15, 2021-2026.	1.8	372
71	Fungal Adenylyl Cyclase Integrates CO ₂ Sensing with cAMP Signaling and Virulence. <i>Current Biology</i> , 2005, 15, 2177.	1.8	4
72	Calcium-sensing soluble adenylyl cyclase mediates TNF signal transduction in human neutrophils. <i>Journal of Experimental Medicine</i> , 2005, 202, 353-361.	4.2	62

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73	A Novel Mechanism for Adenylyl Cyclase Inhibition from the Crystal Structure of Its Complex with Catechol Estrogen. <i>Journal of Biological Chemistry</i> , 2005, 280, 31754-31759.	1.6	66
74	The "Soluble" Adenylyl Cyclase in Sperm Mediates Multiple Signaling Events Required for Fertilization. <i>Developmental Cell</i> , 2005, 9, 249-259.	3.1	353
75	Bicarbonate-responsive "soluble" adenylyl cyclase defines a nuclear cAMP microdomain. <i>Journal of Cell Biology</i> , 2004, 164, 527-534.	2.3	157
76	Conservation of functional domain structure in bicarbonate-regulated "soluble" adenylyl cyclases in bacteria and eukaryotes. <i>Development Genes and Evolution</i> , 2004, 214, 503-9.	0.4	27
77	Compartmentalization of bicarbonate-sensitive adenylyl cyclase in distinct signaling microdomains. <i>FASEB Journal</i> , 2003, 17, 82-84.	0.2	259
78	Bicarbonate-regulated Adenylyl Cyclase (sAC) Is a Sensor That Regulates pH-dependent V-ATPase Recycling. <i>Journal of Biological Chemistry</i> , 2003, 278, 49523-49529.	1.6	202
79	Kinetic Properties of "Soluble" Adenylyl Cyclase. <i>Journal of Biological Chemistry</i> , 2003, 278, 15922-15926.	1.6	316
80	HCO ₃ ⁻ -dependent soluble adenylyl cyclase activates cystic fibrosis transmembrane conductance regulator in corneal endothelium. <i>American Journal of Physiology - Cell Physiology</i> , 2003, 284, C1114-C1122.	2.1	39
81	Purification of Soluble Adenylyl Cyclase. <i>Methods in Enzymology</i> , 2002, 345, 95-105.	0.4	10
82	Identification of Transmembrane Adenylyl Cyclase Isoforms. <i>Methods in Enzymology</i> , 2002, 345, 150-159.	0.4	3
83	CO ₂ /HCO ₃ ⁻ -responsive soluble adenylyl cyclase as a putative metabolic sensor. <i>Trends in Endocrinology and Metabolism</i> , 2001, 12, 366-370.	3.1	105
84	Specific expression of soluble adenylyl cyclase in male germ cells. , 2000, 56, 6-11.		92
85	A calcium-inhibited <i>Drosophila</i> adenylyl cyclase. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2000, 1495, 125-139.	1.9	14
86	Soluble Adenylyl Cyclase as an Evolutionarily Conserved Bicarbonate Sensor. <i>Science</i> , 2000, 289, 625-628.	6.0	771
87	Cloning and characterization of a <i>Drosophila</i> adenylyl cyclase homologous to mammalian type IX. <i>FEBS Letters</i> , 1997, 413, 104-108.	1.3	15
88	6 Genetic characterization of adenylyl cyclase function. <i>Advances in Second Messenger and Phosphoprotein Research</i> , 1997, 32, 121-135.	4.5	8
89	Identification of Functional Domains of Adenylyl Cyclase Using in Vivo Chimeras. <i>Journal of Biological Chemistry</i> , 1995, 270, 7573-7579.	1.6	71
90	Preferential expression of the <i>drosophila rutabaga</i> gene in mushroom bodies, neural centers for learning in insects. <i>Neuron</i> , 1992, 9, 619-627.	3.8	239

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91	The <i>Drosophila</i> learning and memory gene <i>rutabaga</i> encodes a Ca ²⁺ -calmodulin-responsive adenylyl cyclase. <i>Cell</i> , 1992, 68, 479-489.	13.5	561
92	[51] Functional expression of mammalian adenosine cyclic monophosphate-dependent protein kinase in <i>saccharomyces cerevisiae</i> . <i>Methods in Enzymology</i> , 1991, 200, 605-627.	0.4	3
93	cAMP-independent control of sporulation, glycogen metabolism, and heat shock resistance in <i>S. cerevisiae</i> . <i>Cell</i> , 1988, 53, 555-566.	13.5	291
94	The <i>S. cerevisiae</i> CDC25 gene product regulates the RAS/adenylate cyclase pathway. <i>Cell</i> , 1987, 48, 789-799.	13.5	523