Anant B Parekh

List of Publications by Citations

90 papers	6,127 citations	37 h-index	77 g-index
111 ext. papers	6,572 ext. citations	9.1 avg, IF	6.4 L-index

#	Paper	IF	Citations
90	Store-operated calcium channels. *Physiological Reviews*, **2005**, 85, 757-810	47.9	1757
89	Depletion of InsP3 stores activates a Ca2+ and K+ current by means of a phosphatase and a diffusible messenger. *Nature*, **1993**, 364, 814-8	50.4	357
88	Store-operated CRAC channels: function in health and disease. *Nature Reviews Drug Discovery*, **2010**, 9, 399-410	64.1	240
87	The store-operated calcium current I(CRAC): nonlinear activation by InsP3 and dissociation from calcium release. *Cell*, **1997**, 89, 973-80	56.2	215
86	Store-operated Ca2+ entry depends on mitochondrial Ca2+ uptake. *EMBO Journal*, **2002**, 21, 6744-54	13	171
85	Decoding cytosolic Ca2+ oscillations. *Trends in Biochemical Sciences*, **2011**, 36, 78-87	10.3	167
84	Ca2+ microdomains near plasma membrane Ca2+ channels: impact on cell function. *Journal of Physiology*, **2008**, 586, 3043-54	3.9	166
83	Store-operated Ca2+ entry: dynamic interplay between endoplasmic reticulum, mitochondria and plasma membrane. *Journal of Physiology*, **2003**, 547, 333-48	3.9	161
82	An examination of the secretion-like coupling model for the activation of the Ca2+ release-activated Ca2+ current I(CRAC) in RBL-1 cells. *Journal of Physiology*, **2001**, 532, 55-71	3.9	137
81	Decoding of cytoplasmic Ca(2+) oscillations through the spatial signature drives gene expression. *Current Biology*, **2009**, 19, 853-8	6.3	124
80	Biphasic regulation of mitochondrial Ca2+ uptake by cytosolic Ca2+ concentration. *Current Biology*, **2006**, 16, 1672-7	6.3	103
79	Selective activation of the transcription factor NFAT1 by calcium microdomains near Ca2+ release-activated Ca2+ (CRAC) channels. *Journal of Biological Chemistry*, **2011**, 286, 14795-803	5.4	97
78	Sustained activation of the tyrosine kinase Syk by antigen in mast cells requires local Ca2+ influx through Ca2+ release-activated Ca2+ channels. *Journal of Biological Chemistry*, **2008**, 283, 31348-55	5.4	95
77	Distinct spatial Ca2+ signatures selectively activate different NFAT transcription factor isoforms. *Molecular Cell*, **2015**, 58, 232-43	17.6	91
76	Different agonists recruit different stromal interaction molecule proteins to support cytoplasmic Ca2+ oscillations and gene expression. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 6969-74	11.5	91
75	Ca2+ influx through CRAC channels activates cytosolic phospholipase A2, leukotriene C4 secretion, and expression of c-fos through ERK-dependent and -independent pathways in mast cells. *FASEB Journal*, **2006**, 20, 2381-3	0.9	86
74	Slow feedback inhibition of calcium release-activated calcium current by calcium entry. *Journal of Biological Chemistry*, **1998**, 273, 14925-32	5.4	86

73	Ca2+ -dependent inactivation of the mitochondrial Ca2+ uniporter involves proton flux through the ATP synthase. *Current Biology*, **2008**, 18, 855-9	6.3	85
72	Mitofusin 2 regulates STIM1 migration from the Ca2+ store to the plasma membrane in cells with depolarized mitochondria. *Journal of Biological Chemistry*, **2011**, 286, 12189-201	5.4	83
71	Mitochondrial regulation of store-operated CRAC channels. *Cell Calcium*, **2008**, 44, 6-13	4	78
70	Close functional coupling between Ca2+ release-activated Ca2+ channels, arachidonic acid release, and leukotriene C4 secretion. *Journal of Biological Chemistry*, **2004**, 279, 29994-9	5.4	74
69	CRAC channels and Ca2+ signaling in mast cells. *Immunological Reviews*, **2009**, 231, 45-58	11.3	73
68	Dynamic assembly of a membrane signaling complex enables selective activation of NFAT by Orai1. *Current Biology*, **2014**, 24, 1361-1368	6.3	70
67	Monovalent cation permeability and Ca(2+) block of the store-operated Ca(2+) current I(CRAC)in rat basophilic leukemia cells. *Pflugers Archiv European Journal of Physiology*, **2002**, 443, 892-902	4.6	70
66	Local Ca2+ influx through Ca2+ release-activated Ca2+ (CRAC) channels stimulates production of an intracellular messenger and an intercellular pro-inflammatory signal. *Journal of Biological Chemistry* , **2008**, 283, 4622-31	5.4	69
65	Substantial depletion of the intracellular Ca2+ stores is required for macroscopic activation of the Ca2+ release-activated Ca2+ current in rat basophilic leukaemia cells. *Journal of Physiology*, **2000**, 522 Pt 2, 247-57	3.9	62
64	Mitochondrial calcium uniporter MCU supports cytoplasmic Ca2+ oscillations, store-operated Ca2+ entry and Ca2+-dependent gene expression in response to receptor stimulation. *PLoS ONE*, **2014**, 9, e101188	3.7	59
63	CRAC channels drive digital activation and provide analog control and synergy to Ca(2+)-dependent gene regulation. *Current Biology*, **2012**, 22, 242-7	6.3	57
62	Calcium dependence and distribution of calcium-activated chloride channels in Xenopus oocytes. *Journal of Physiology*, **1997**, 502 (Pt 3), 569-74	3.9	50
61	Coupling of Ca(2+) microdomains to spatially and temporally distinct cellular responses by the tyrosine kinase Syk. *Journal of Biological Chemistry*, **2009**, 284, 24767-72	5.4	42
60	Control of NFAT Isoform Activation and NFAT-Dependent Gene Expression through Two Coincident and Spatially Segregated Intracellular Ca Signals. *Molecular Cell*, **2016**, 64, 746-759	17.6	39
59	Regulation of store-operated calcium channels by the intermediary metabolite pyruvic acid. *Current Biology*, **2007**, 17, 1076-81	6.3	39
58	Sequential forward and reverse transport of the Na Ca exchanger generates Ca oscillations within mitochondria. *Nature Communications*, **2018**, 9, 156	17.4	38
57	Targeting Ca2+ release-activated Ca2+ channel channels and leukotriene receptors provides a novel combination strategy for treating nasal polyposis. *Journal of Allergy and Clinical Immunology*, **2009**, 124, 1014-21.e1-3	11.5	38
56	Functional consequences of activating store-operated CRAC channels. *Cell Calcium*, **2007**, 42, 111-21	4	38

55	On the activation mechanism of store-operated calcium channels. *Pflugers Archiv European Journal of Physiology*, **2006**, 453, 303-11	4.6	37
54	Ca2+ store dynamics determines the pattern of activation of the store-operated Ca2+ current I(CRAC) in response to InsP3 in rat basophilic leukaemia cells. *Journal of Physiology*, **2000**, 523 Pt 2, 283-90	3.9	37
53	On the characterisation of the mechanism underlying passive activation of the Ca2+ release-activated Ca2+ current ICRAC in rat basophilic leukaemia cells. *Journal of Physiology*, **1999**, 520 Pt 2, 407-16	3.9	35
52	Mitochondrial regulation of intracellular Ca2+ signaling: more than just simple Ca2+ buffers. *Physiology*, **2003**, 18, 252-6	9.8	34
51	Ca2+-calmodulin-dependent facilitation and Ca2+ inactivation of Ca2+ release-activated Ca2+ channels. *Journal of Biological Chemistry*, **2005**, 280, 8776-83	5.4	34
50	Mast cell CRAC channel as a novel therapeutic target in allergy. *Current Opinion in Allergy and Clinical Immunology*, **2011**, 11, 33-8	3.3	33
49	Intercellular Ca2+ wave propagation involving positive feedback between CRAC channels and cysteinyl leukotrienes. *FASEB Journal*, **2009**, 23, 894-905	0.9	32
48	Spatial Ca profiling: decrypting the universal cytosolic Ca oscillation. *Journal of Physiology*, **2017**, 595, 3053-3062	3.9	31
47	Distinct structural domains of caveolin-1 independently regulate Ca2+ release-activated Ca2+ channels and Ca2+ microdomain-dependent gene expression. *Molecular and Cellular Biology*, **2015**, 35, 1341-9	4.8	29
46	Cysteinyl leukotriene type I receptor desensitization sustains Ca2+-dependent gene expression. *Nature*, **2012**, 482, 111-5	50.4	29
45	Ca(2+) Channel Re-localization to Plasma-Membrane Microdomains Strengthens Activation of Ca(2+)-Dependent Nuclear Gene Expression. *Cell Reports*, **2015**, 12, 203-16	10.6	25
44	Effects of inhibitors of the lipo-oxygenase family of enzymes on the store-operated calcium current I(CRAC) in rat basophilic leukaemia cells. *Journal of Physiology*, **2002**, 539, 93-106	3.9	25
43	Endoplasmic reticulum-mitochondria coupling: local Ca□+ signalling with functional consequences. *Pflugers Archiv European Journal of Physiology*, **2012**, 464, 27-32	4.6	24
42	Regulation of CRAC channels by Ca-dependent inactivation. *Cell Calcium*, **2017**, 63, 20-23	4	22
41	Voltage-dependent Ba2+ permeation through store-operated CRAC channels: implications for channel selectivity. *Cell Calcium*, **2007**, 42, 333-9	4	22
40	The sources of calcium for carbachol-induced contraction in the circular smooth muscle of guinea-pig stomach. *British Journal of Pharmacology*, **1991**, 104, 412-8	8.6	21
39	Key role for store-operated Ca2+ channels in activating gene expression in human airway bronchial epithelial cells. *PLoS ONE*, **2014**, 9, e105586	3.7	20
38	Mitochondrial regulation of CRAC channel-driven cellular responses. *Cell Calcium*, **2012**, 52, 52-6	4	20

37	All-or-none activation of CRAC channels by agonist elicits graded responses in populations of mast cells. *Journal of Immunology*, **2007**, 179, 5255-63	5.3	19
36	Interaction between capacitative Ca2+ influx and Ca2+-dependent Cl- currents in Xenopus oocytes. *Pflugers Archiv European Journal of Physiology*, **1995**, 430, 954-63	4.6	19
35	Electrophysiological Recordings from Xenopus Oocytes **1995**, 341-356		19
34	Sarcoplasmic/endoplasmic-reticulum-Ca2+-ATPase-mediated Ca2+ reuptake, and not Ins(1,4,5)P3 receptor inactivation, prevents the activation of macroscopic Ca2+ release-activated Ca2+ current in the presence of physiological Ca2+ buffer in rat basophilic leukaemia-1 cells. *Biochemical Journal*, **2001**, 353, 561-567	3.8	16
33	Voltage-dependent conductance changes in the store-operated Ca2+ current ICRAC in rat basophilic leukaemia cells. *Journal of Physiology*, **2000**, 529 Pt 2, 295-306	3.9	16
32	The Allergen Der p3 from House Dust Mite Stimulates Store-Operated Ca Channels and Mast Cell Migration through PAR4 Receptors. *Molecular Cell*, **2018**, 70, 228-241.e5	17.6	15
31	Calcium signalling: mitofusins promote interorganellar crosstalk. *Current Biology*, **2009**, 19, R200-3	6.3	15
30	STIM proteins, Orai1 and gene expression. *Channels*, **2013**, 7, 374-8	3	14
29	Selective recruitment of different Ca-dependent transcription factors by STIM1-Orai1 channel clusters. *Nature Communications*, **2019**, 10, 2516	17.4	13
28	Caveolin-1 alters the pattern of cytoplasmic Ca2+ oscillations and Ca2+-dependent gene expression by enhancing leukotriene receptor desensitization. *Journal of Biological Chemistry*, **2014**, 289, 17843-53	5.4	13
27	Local Ca2+ influx through CRAC channels activates temporally and spatially distinct cellular responses. *Acta Physiologica*, **2009**, 195, 29-35	5.6	13
26	Activation of the store-operated calcium current ICRAC can be dissociated from regulated exocytosis in rat basophilic leukaemia (RBL-1) cells. *Journal of Physiology*, **2003**, 553, 387-93	3.9	13
25	The M3 muscarinic receptor links to three different transduction mechanisms with different efficacies in circular muscle of guinea-pig stomach. *British Journal of Pharmacology*, **1992**, 106, 639-43	8.6	13
24	The N terminus of Orai1 couples to the AKAP79 signaling complex to drive NFAT1 activation by local Ca entry. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	12
23	Sarcoplasmic/endoplasmic-reticulum-Ca2+-ATPase-mediated Ca2+ reuptake, and not Ins(1,4,5)P3 receptor inactivation, prevents the activation of macroscopic Ca2+ release-activated Ca2+ current in the presence of physiological Ca2+ buffer in rat basophilic leukaemia-1 cells. *Biochemical Journal*, **2001**, 353, 561-7	3.8	11
22	Ca2+ Influx through Store-operated Calcium Channels Replenishes the Functional Phosphatidylinositol 4,5-Bisphosphate Pool Used by Cysteinyl Leukotriene Type I Receptors. *Journal of Biological Chemistry*, **2015**, 290, 29555-66	5.4	10
21	Adenophostin A and ribophostin, but not inositol 1,4,5-trisphosphate or manno-adenophostin, activate the Ca2+ release-activated Ca2+ current, ICRAC, in weak intracellular Ca2+ buffer. *Biochemical Journal*, **2002**, 361, 133-141	3.8	10
20	Comparison of the activation of the Ca2+ release-activated Ca2+ current ICRAC to InsP3 in Jurkat T-lymphocytes, pulmonary artery endothelia and RBL-1 cells. *Pflugers Archiv European Journal of Physiology*, **2000**, 440, 580-7	4.6	10

19	Single-nucleotide polymorphisms in Orai1 associated with atopic dermatitis inhibit protein turnover, decrease calcium entry and disrupt calcium-dependent gene expression. *Human Molecular Genetics*, **2020**, 29, 1808-1823	5.6	9
18	Store-operated Ca2+ channels in airway epithelial cell function and implications for asthma. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2016**, 371,	5.8	8
17	Adenophostin A and ribophostin, but not inositol 1,4,5-trisphosphate or manno-adenophostin, activate the Ca2+ release-activated Ca2+ current, I(CRAC), in weak intracellular Ca2+ buffer. *Biochemical Journal*, **2002**, 361, 133-41	3.8	8
16	Nonhydrolyzable analogues of GTP activate a new Na+ current in a rat mast cell line. *Journal of Biological Chemistry*, **1996**, 271, 23161-8	5.4	8
15	Receptors involved in mechanical responses to catecholamines in the circular muscle of guinea-pig stomach treated with meclofenamate. *British Journal of Pharmacology*, **1990**, 101, 809-14	8.6	8
14	Effects of phosphatidylinositol kinase inhibitors on the activation of the store-operated calcium current ICRAC in RBL-1 cells. *Pflugers Archiv European Journal of Physiology*, **2001**, 442, 391-5	4.6	7
13	Store-Operated Ca Channels: Mechanism, Function, Pharmacology, and Therapeutic Targets. *Annual Review of Pharmacology and Toxicology*, **2021**, 61, 629-654	17.9	7
12	Inwardly rectifying potassium currents in rat basophilic leukaemia (RBL-1) cells: regulation by spermine and implications for store-operated calcium influx. *Pflugers Archiv European Journal of Physiology*, **2002**, 444, 389-96	4.6	6
11	The whole-cell Ca release-activated Ca current, I , is regulated by the mitochondrial Ca uniporter channel and is independent of extracellular and cytosolic Na. *Journal of Physiology*, **2020**, 598, 1753-1773	3.9	6
10	Signaling through Ca Microdomains from Store-Operated CRAC Channels. *Cold Spring Harbor Perspectives in Biology*, **2020**, 12,	10.2	5
9	Effects of protein phosphorylation on the regulation of capacitative calcium influx in Xenopus oocytes. *Pflugers Archiv European Journal of Physiology*, **1996**, 432, 14-25	4.6	4
8	AKAP79 Orchestrates a Cyclic AMP Signalosome Adjacent to Orai1 Ca Channels. *Function*, **2021**, 2, zqab036	3.6	4
7	Arf-1 (ADP-ribosylation factor-1) is involved in the activation of a mammalian Na+-selective current. *Biochemical Journal*, **2004**, 377, 539-44	3.8	2
6	Conformational surveillance of Orai1 by a rhomboid intramembrane protease prevents inappropriate CRAC channel activation. *Molecular Cell*, **2021**, 81, 4784-4798.e7	17.6	2
5	Electrophysiological Recordings of Ca2+ Currents **2005**, 125-146		1
4	Mitofusin 2 Regulates STIM1 Migration from the Ca2+ Store to the Plasma Membrane in Cells with Depolarized Mitochondria. *Journal of Biological Chemistry*, **2011**, 286, 12189-12201	5.4	1
3	Conformational surveillance of Orai1 by a rhomboid intramembrane protease prevents inappropriate CRAC channel activation		1
2	Cytosolic and intra-organellar Ca2+ oscillations: mechanisms and function. *Current Opinion in Physiology*, **2020**, 17, 175-186	2.6	

1 Ion channels in patho-physiology. *Journal of Physiology*, **2012**, 590, 1347 3.9