Ian Parker

List of Publications by Year
in descending order

53 papers	3,143 citations	172457 29 h-index	175258 52 g-index
58 all docs	58 docs citations	58 times ranked	2637 citing authors

#	Article	IF	Citations
1	A continuum of InsP3-mediated elementary Ca2+signalling events inXenopusoocytes. Journal of Physiology, 1998, 509, 67-80.	2.9	227
2	Elementary events of InsP3-induced Ca2+ liberation in Xenopus oocytes: hot spots, puffs and blips. Cell Calcium, 1996, 20, 105-121.	2.4	221
3	Imaging the quantal substructure of single IP ₃ R channel activity during Ca ²⁺ puffs in intact mammalian cells. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6404-6409.	7.1	172
4	A comparison of fluorescent Ca2+ indicators for imaging local Ca2+ signals in cultured cells. Cell Calcium, 2015, 58, 638-648.	2.4	159
5	Activation and co-ordination of InsP3-mediated elementary Ca2+events during global Ca2+signals inXenopusoocytes. Journal of Physiology, 1998, 509, 81-91.	2.9	154
6	Myosin-II mediated traction forces evoke localized Piezo1-dependent Ca2+ flickers. Communications Biology, 2019, 2, 298.	4.4	141
7	Buffer Kinetics Shape the Spatiotemporal Patterns of IP 3 â€Evoked Ca 2+ Signals. Journal of Physiology, 2003, 553, 775-788.	2.9	131
8	Cytotoxicity of Intracellular AÎ²₄₂Amyloid Oligomers Involves Ca²⁺Release from the Endoplasmic Reticulum by Stimulated Production of Inositol Trisphosphate. Journal of Neuroscience, 2013, 33, 3824-3833.	3.6	115
9	Imaging regulatory T cell dynamics and CTLA4-mediated suppression of T cell priming. Nature Communications, 2015, 6, 6219.	12.8	107
10	â€œOptical Patch-clampingâ€• Journal of General Physiology, 2005, 126, 179-192.	1.9	104
11	Localization of puff sites adjacent to the plasma membrane: Functional and spatial characterization of Ca2+ signaling in SH-SY5Y cells utilizing membrane-permeant caged IP3. Cell Calcium, 2009, 45, 65-76.	2.4	104
12	Imaging the Activity and Localization of Single Voltage-Gated Ca2+ Channels by Total Internal Reflection Fluorescence Microscopy. Biophysical Journal, 2004, 86, 3250-3259.	0.5	88
13	Optical single-channel recording by imaging Ca2+ flux through individual ion channels: theoretical considerations and limits to resolution. Cell Calcium, 2005, 37, 283-299.	2.4	88
14	A Kinetic Model of Single and Clustered IP3 Receptors in the Absence of Ca2+ Feedback. Biophysical Journal, 2007, 93, 1151-1162.	0.5	86
15	Spatiotemporal patterning of IP3-mediated Ca2+signals inXenopusoocytes by Ca2+-binding proteins. Journal of Physiology, 2004, 556, 447-461.	2.9	81
16	Ca ²⁺ Puffs Originate from Preestablished Stable Clusters of Inositol Trisphosphate Receptors. Science Signaling, 2009, 2, ra77.	3.6	75
17	An algorithm for automated detection, localization and measurement of local calcium signals from camera-based imaging. Cell Calcium, 2014, 56, 147-156.	2.4	70
18	Molecular Biophysics of Orai Store-Operated Ca2+ Channels. Biophysical Journal, 2015, 108, 237-246.	0.5	64

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19	Mode Switching Is the Major Mechanism of Ligand Regulation of InsP3 Receptor Calcium Release Channels. Journal of General Physiology, 2007, 130, 631-645.	1.9	59
20	All three IP ₃ receptor isoforms generate Ca ²⁺ puffs that display similar characteristics. Science Signaling, 2018, 11, .	3.6	53
21	T-cell calcium dynamics visualized in a ratiometric tdTomato-GCaMP6f transgenic reporter mouse. ELife, 2017, 6, .	6.0	51
22	Communication of Ca2+ signals via tunneling membrane nanotubes is mediated by transmission of inositol trisphosphate through gap junctions. Cell Calcium, 2016, 60, 266-272.	2.4	48
23	Recording single-channel activity of inositol trisphosphate receptors in intact cells with a microscope, not a patch clamp. Journal of General Physiology, 2010, 136, 119-127.	1.9	47
24	Piezo1 channels restrain regulatory T cells but are dispensable for effector CD4 ⁺ T cell responses. Science Advances, 2021, 7, .	10.3	45
25	The Probability of Triggering Calcium Puffs Is Linearly Related to the Number of Inositol Trisphosphate Receptors in a Cluster. Biophysical Journal, 2012, 102, 1826-1836.	0.5	44
26	Radial Localization of Inositol 1,4,5-Trisphosphateâ€“sensitive Ca2+ Release Sites in Xenopus Oocytes Resolved by Axial Confocal Linescan Imaging. Journal of General Physiology, 1999, 113, 199-213.	1.9	42
27	Superresolution Localization of Single Functional IP3R Channels Utilizing Ca2+ÂFlux as a Readout. Biophysical Journal, 2010, 99, 437-446.	0.5	41
28	Spinning-Spot Shadowless TIRF Microscopy. PLoS ONE, 2015, 10, e0136055.	2.5	36
29	Regulatory T cells suppress Th17 cell Ca ²⁺ signaling in the spinal cord during murine autoimmune neuroinflammation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20088-20099.	7.1	34
30	IP3 mediated global Ca2+ signals arise through two temporally and spatially distinct modes of Ca2+ release. ELife, 2020, 9, .	6.0	34
31	High-throughput screen detects calcium signaling dysfunction in typical sporadic autism spectrum disorder. Scientific Reports, 2017, 7, 40740.	3.3	33
32	Intermittent Ca2+ signals mediated by Orai1 regulate basal T cell motility. ELife, 2017, 6, .	6.0	31
33	TREM2 regulates purinergic receptor-mediated calcium signaling and motility in human iPSC-derived microglia. ELife, 2022, 11, .	6.0	31
34	Hemispheric asymmetry of macroscopic and elementary calcium signals mediated by InsP3inXenopusoocytes. Journal of Physiology, 1998, 511, 395-405.	2.9	28
35	Termination of calcium puffs and coupled closings of inositol trisphosphate receptor channels. Cell Calcium, 2014, 56, 157-168.	2.4	28
36	Multi-dimensional resolution of elementary Ca2+ signals by simultaneous multi-focal imaging. Cell Calcium, 2008, 43, 367-374.	2.4	27

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37	Modulation of Elementary Calcium Release Mediates a Transition from Puffs to Waves in an IP3R Cluster Model. PLoS Computational Biology, 2015, 11, e1003965.	3.2	25
38	Orai1 Function Is Essential for T Cell Homing to Lymph Nodes. Journal of Immunology, 2013, 190, 3197-3206.	0.8	24
39	Single-Molecule Tracking of Inositol Trisphosphate Receptors Reveals Different Motilities and Distributions. Biophysical Journal, 2014, 107, 834-845.	0.5	24
40	Comparison of Ca2+ puffs evoked by extracellular agonists and photoreleased IP3. Cell Calcium, 2017, 63, 43-47.	2.4	23
41	Dynamic Ca2+ imaging with a simplified lattice light-sheet microscope: A sideways view of subcellular Ca2+ puffs. Cell Calcium, 2018, 71, 34-44.	2.4	23
42	Spatial-temporal patterning of Ca2+ signals by the subcellular distribution of IP3 and IP3 receptors. Seminars in Cell and Developmental Biology, 2019, 94, 3-10.	5.0	23
43	Factors Determining the Recruitment of Inositol Trisphosphate Receptor Channels During Calcium Puffs. Biophysical Journal, 2013, 105, 2474-2484.	0.5	20
44	ER-luminal [Ca2+] regulation of InsP3 receptor gating mediated by an ER-luminal peripheral Ca2+-binding protein. ELife, 2020, 9, .	6.0	19
45	Applications of FLIKA, a Python-based image processing and analysis platform, for studying local events of cellular calcium signaling. Biochimica Et Biophysica Acta - Molecular Cell Research, 2019, 1866, 1171-1179.	4.1	15
46	Imaging Local Ca²⁺ Signals in Cultured Mammalian Cells. Journal of Visualized Experiments, 2015, , .	0.3	14
47	TraceSpecks: A Software for Automated Idealization of Noisy Patch-Clamp and Imaging Data. Biophysical Journal, 2018, 115, 9-21.	0.5	12
48	Picomolar sensitivity to inositol trisphosphate in Xenopus oocytes. Cell Calcium, 2015, 58, 511-517.	2.4	6
49	Noise analysis of cytosolic calcium image data. Cell Calcium, 2020, 86, 102152.	2.4	6
50	CellSpecks: A Software for Automated Detection and Analysis of Calcium Channels in Live Cells. Biophysical Journal, 2018, 115, 2141-2151.	0.5	4
51	Termination of Ca2+ puffs during IP3-evoked global Ca2+ signals. Cell Calcium, 2021, 100, 102494.	2.4	4
52	Subcellular Ca²⁺ Puffs Mediated By Different Inositol Trisphosphate Receptor Isoforms. FASEB Journal, 2018, 32, 750.33.	0.5	1
53	Tunneling membrane nanotubes generate local calcium signals and may actively propagate calcium signals between cells. FASEB Journal, 2010, 24, lb582.	0.5	0