Orion David Weiner

List of Publications by Year
in descending order

74 papers	10,008 citations	66343 42 h-index	102487 66 g-index
85 all docs	85 docs citations	85 times ranked	9861 citing authors

#	Article	IF	Citations
1	Puff up to decide: the role of regulatory volume changes in neutrophil polarity and chemotaxis. Biophysical Journal, 2022, 121, 266a.	0.5	0
2	Molecular mechanism of formation of GPCR domains at the cell surface. Biophysical Journal, 2022, 121, 10a.	0.5	0
3	WASP integrates substrate topology and cell polarity to guide neutrophil migration. Journal of Cell Biology, 2022, 221, .	5.2	28
4	The WAVE complex associates with sites of saddle membrane curvature. Journal of Cell Biology, 2021, 220, .	5.2	36
5	Optogenetic Tuning of Protein-protein Binding in Bilayers Using LOVTRAP. Bio-protocol, 2020, 10, e3745.	0.4	0
6	Cell confinement reveals a branched-actin independent circuit for neutrophil polarity. PLoS Biology, 2019, 17, e3000457.	5.6	54
7	Multiple sources of signal amplification within the B-cell Ras/MAPK pathway. Molecular Biology of the Cell, 2019, 30, 1610-1620.	2.1	9
8	Live-cell imaging reveals enhancer-dependent Sox2 transcription in the absence of enhancer proximity. ELife, 2019, 8, .	6.0	220
9	Light-based tuning of ligand half-life supports kinetic proofreading model of T cell signaling. ELife, 2019, 8, .	6.0	70
10	Chick cranial neural crest cells use progressive polarity refinement, not contact inhibition of locomotion, to guide their migration. Developmental Biology, 2018, 444, S252-S261.	2.0	22
11	Joining forces: crosstalk between biochemical signalling and physical forces orchestrates cellular polarity and dynamics. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170145.	4.0	51
12	A size-invariant bud-duration timer enables robustness in yeast cell size control. PLoS ONE, 2018, 13, e0209301.	2.5	16
13	In pursuit of the mechanics that shape cell surfaces. Nature Physics, 2018, 14, 648-652.	16.7	68
14	Nodal signaling has dual roles in fate specification and directed migration during germ layer segregation. Development (Cambridge), 2018, 145, .	2.5	11
15	TAEL: A zebrafish-optimized optogenetic gene expression system with fine spatial and temporal control. Development (Cambridge), 2017, 144, 345-355.	2.5	67
16	Clathrin Assembly Defines the Onset and Geometry of Cortical Patterning. Developmental Cell, 2017, 43, 507-521.e4.	7.0	18
17	A module for Rac temporal signal integration revealed with optogenetics. Journal of Cell Biology, 2017, 216, 2515-2531.	5.2	61
18	Positioning the cleavage furrow: All you need is Rho. Journal of Cell Biology, 2016, 213, 605-607.	5.2	4

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19	Reversible Optogenetic Control of Subcellular Protein Localization in a Live Vertebrate Embryo. Developmental Cell, 2016, 36, 117-126.	7.0	95
20	GÎ² Regulates Coupling between Actin Oscillators for Cell Polarity and Directional Migration. PLoS Biology, 2016, 14, e1002381.	5.6	28
21	Membrane Tension Acts Through PLD2 and mTORC2 to Limit Actin Network Assembly During Neutrophil Migration. PLoS Biology, 2016, 14, e1002474.	5.6	172
22	Homer3 regulates the establishment of neutrophil polarity. Molecular Biology of the Cell, 2015, 26, 1629-1639.	2.1	19
23	Probing Yeast Polarity with Acute, Reversible, Optogenetic Inhibition of Protein Function. ACS Synthetic Biology, 2015, 4, 1077-1085.	3.8	34
24	A naturally monomeric infrared fluorescent protein for protein labeling in vivo. Nature Methods, 2015, 12, 763-765.	19.0	146
25	Cell Migration: Recoiling from an Embrace. Current Biology, 2015, 25, R566-R568.	3.9	0
26	Myosin light chain kinase regulates cell polarization independently of membrane tension or Rho kinase. Journal of Cell Biology, 2015, 209, 275-288.	5.2	40
27	How should we be selecting our graduate students?. Molecular Biology of the Cell, 2014, 25, 429-430.	2.1	31
28	Response to Bell <i>et al.</i>. Molecular Biology of the Cell, 2014, 25, 1945-1945.	2.1	2
29	Synthetic control of mammalian-cell motility by engineering chemotaxis to an orthogonal bioinert chemical signal. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5896-5901.	7.1	95
30	How to Understand and Outwit Adaptation. Developmental Cell, 2014, 28, 607-616.	7.0	47
31	An optogenetic gene expression system with rapid activation and deactivation kinetics. Nature Chemical Biology, 2014, 10, 196-202.	8.0	317
32	Self-organization of protrusions and polarity during eukaryotic chemotaxis. Current Opinion in Cell Biology, 2014, 30, 60-67.	5.4	64
33	Illuminating cell signalling with optogenetic tools. Nature Reviews Molecular Cell Biology, 2014, 15, 551-558.	37.0	317
34	The symphony of cell movement: how cells orchestrate diverse signals and forces to control migration. Current Opinion in Cell Biology, 2013, 25, 523-525.	5.4	9
35	Two distinct functions for PI3-kinases in macropinocytosis. Journal of Cell Science, 2013, 126, 4296-307.	2.0	83
36	Using Optogenetics to Interrogate the Dynamic Control of Signal Transmission by the Ras/Erk Module. Cell, 2013, 155, 1422-1434.	28.9	476

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37	Use the force: membrane tension as an organizer of cell shape and motility. Trends in Cell Biology, 2013, 23, 47-53.	7.9	485
38	Identifying Network Motifs that Buffer Front-to-Back Signaling in Polarized Neutrophils. Cell Reports, 2013, 3, 1607-1616.	6.4	40
39	Actin dynamics rapidly reset chemoattractant receptor sensitivity following adaptation in neutrophils. Philosophical Transactions of the Royal Society B: Biological Sciences, 2013, 368, 20130008.	4.0	17
40	A light-inducible organelle-targeting system for dynamically activating and inactivating signaling in budding yeast. Molecular Biology of the Cell, 2013, 24, 2419-2430.	2.1	90
41	Diffusion, capture and recycling of SCAR/WAVE and Arp2/3 complexes observed in cells by single-molecule imaging. Journal of Cell Science, 2012, 125, 1165-1176.	2.0	55
42	Nodal signaling regulates endodermal cell motility and actin dynamics via Rac1 and Prex1. Journal of Cell Biology, 2012, 198, 941-952.	5.2	51
43	Membrane Tension Maintains Cell Polarity by Confining Signals to the Leading Edge during Neutrophil Migration. Cell, 2012, 148, 175-188.	28.9	490
44	Network Crosstalk Dynamically Changes during Neutrophil Polarization. Cell, 2012, 149, 1073-1083.	28.9	46
45	A Light-Based Feedback Control System for Generating User-Defined Intracelullar Signaling Dynamics. Biophysical Journal, 2012, 102, 41a.	0.5	1
46	Mechanical tension spatially restricts signals to the leading edge during neutrophil migration. FASEB Journal, 2012, 26, 345.3.	0.5	0
47	Dynamic information flow during neutrophil polarization. FASEB Journal, 2012, 26, 345.1.	0.5	0
48	Light-based feedback for controlling intracellular signaling dynamics. Nature Methods, 2011, 8, 837-839.	19.0	249
49	The promise of optogenetics in cell biology: interrogating molecular circuits in space and time. Nature Methods, 2011, 8, 35-38.	19.0	218
50	Light Control of Plasma Membrane Recruitment Using the Phyâ€“PIF System. Methods in Enzymology, 2011, 497, 409-423.	1.0	51
51	A pharmacological cocktail for arresting actin dynamics in living cells. Molecular Biology of the Cell, 2011, 22, 3986-3994.	2.1	80
52	Sequence-Dependent Sorting of Recycling Proteins by Actin-Stabilized Endosomal Microdomains. Cell, 2010, 143, 761-773.	28.9	289
53	Manipulation of Neutrophil-Like HL-60 Cells for the Study of Directed Cell Migration. Methods in Molecular Biology, 2010, 591, 147-158.	0.9	73
54	Neutrophils Establish Rapid and Robust WAVE Complex Polarity in an Actin-Dependent Fashion. Current Biology, 2009, 19, 253-259.	3.9	55

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55	Spatiotemporal control of cell signalling using a light-switchable protein interaction. Nature, 2009, 461, 997-1001.	27.8	902
56	Cell stimulation with optically manipulated microsources. Nature Methods, 2009, 6, 905-909.	19.0	89
57	Compete Globally, Bud Locally. Cell, 2009, 139, 656-658.	28.9	0
58	Chemotaxis in Neutrophil-Like HL-60 Cells. Methods in Molecular Biology, 2009, 571, 167-177.	0.9	46
59	An Actin-Based Wave Generator Organizes Cell Motility. PLoS Biology, 2007, 5, e221.	5.6	371
60	Rac1 links leading edge and uropod events through Rho and myosin activation during chemotaxis. Blood, 2006, 108, 2814-2820.	1.4	94
61	Hem-1 Complexes Are Essential for Rac Activation, Actin Polymerization, and Myosin Regulation during Neutrophil Chemotaxis. PLoS Biology, 2006, 4, e38.	5.6	154
62	Rac Activation: P-Rex1 â€" A Convergence Point for PIP3 and GÎ²Î³?. Current Biology, 2002, 12, R429-R431.	3.9	34
63	Regulation of cell polarity during eukaryotic chemotaxis: the chemotactic compass. Current Opinion in Cell Biology, 2002, 14, 196-202.	5.4	266
64	Cell polarity: A chemical compass. Nature, 2002, 419, 21-21.	27.8	119
65	Lipid products of PI(3)Ks maintain persistent cell polarity and directed motility in neutrophils. Nature Cell Biology, 2002, 4, 513-518.	10.3	440
66	A PtdInsP3- and Rho GTPase-mediated positive feedback loop regulates neutrophil polarity. Nature Cell Biology, 2002, 4, 509-513.	10.3	480
67	PIP3, PIP2, and Cell Movementâ€"Similar Messages, Different Meanings?. Developmental Cell, 2001, 1, 743-747.	7.0	176
68	Leukocytes navigate by compass: roles of PI3KÎ³ and its lipid products. Trends in Cell Biology, 2000, 10, 466-473.	7.9	276
69	Polarization of Chemoattractant Receptor Signaling During Neutrophil Chemotaxis. Science, 2000, 287, 1037-1040.	12.6	833
70	Dynamics of a Chemoattractant Receptor in Living Neutrophils during Chemotaxis. Molecular Biology of the Cell, 1999, 10, 1163-1178.	2.1	221
71	Spatial control of actin polymerization during neutrophil chemotaxis. Nature Cell Biology, 1999, 1, 75-81.	10.3	247
72	Enteropathogenic E. coli acts through WASP and Arp2/3 complex to form actin pedestals. Nature Cell Biology, 1999, 1, 389-391.	10.3	198

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73	Medium weight neurofilament mRNA in goldfish Mauthner axoplasm. Neuroscience Letters, 1996, 213, 83-86.	2.1	33
74	A Size-invariant Bud-length Timer Enables Robustness in Yeast Cell Size Control. SSRN Electronic Journal, 0, , .	0.4	0