

Timothy C Elston

List of Publications by Year in descending order

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Version: 2024-02-01

69
papers

1,774
citations

331259

21
h-index

315357

38
g-index

73
all docs

73
docs citations

73
times ranked

2042
citing authors

#	ARTICLE	IF	CITATIONS
1	Bistability in the polarity circuit of yeast. <i>Molecular Biology of the Cell</i> , 2022, 33, edn1.	0.9	2
2	Orientation of Cell Polarity by Chemical Gradients. <i>Annual Review of Biophysics</i> , 2022, 51, 431-451.	4.5	16
3	Towards resolution of a paradox in plant G-protein signaling. <i>Plant Physiology</i> , 2022, 188, 807-815.	2.3	11
4	A predictive model of gene expression reveals the role of network motifs in the mating response of yeast. <i>Science Signaling</i> , 2021, 14, .	1.6	2
5	Molecular switch architecture determines response properties of signaling pathways. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	12
6	Bistability in the polarity circuit of yeast. <i>Molecular Biology of the Cell</i> , 2021, , mbc.E20-07-0445.	0.9	4
7	Chemotactic movement of a polarity site enables yeast cells to find their mates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	15
8	Exploratory polarization facilitates mating partner selection in <i>Saccharomyces cerevisiae</i> . <i>Molecular Biology of the Cell</i> , 2021, 32, 1048-1063.	0.9	12
9	A novel stochastic simulation approach enables exploration of mechanisms for regulating polarity site movement. <i>PLoS Computational Biology</i> , 2021, 17, e1008525.	1.5	8
10	Gradient Tracking by Yeast GPCRs in a Microfluidics Chamber. <i>Methods in Molecular Biology</i> , 2021, 2268, 275-287.	0.4	3
11	Biosensors based on peptide exposure show single molecule conformations in live cells. <i>Cell</i> , 2021, 184, 5670-5685.e23.	13.5	15
12	Stochastic modeling of human papillomavirus early promoter gene regulation. <i>Journal of Theoretical Biology</i> , 2020, 486, 110057.	0.8	10
13	Recurrent mismatch binding by MutS mobile clamps on DNA localizes repair complexes nearby. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 17775-17784.	3.3	21
14	Stochastic Methods for Inferring States of Cell Migration. <i>Frontiers in Physiology</i> , 2020, 11, 822.	1.3	1
15	Deep learning enables structured illumination microscopy with low light levels and enhanced speed. <i>Nature Communications</i> , 2020, 11, 1934.	5.8	134
16	Mechanistic models of PLC/PKC signaling implicate phosphatidic acid as a key amplifier of chemotactic gradient sensing. <i>PLoS Computational Biology</i> , 2020, 16, e1007708.	1.5	5
17	Title is missing!. , 2020, 16, e1007708.		0
18	Title is missing!. , 2020, 16, e1007708.		0

#	ARTICLE	IF	CITATIONS
19	Title is missing!. , 2020, 16, e1007708.		0
20	Title is missing!. , 2020, 16, e1007708.		0
21	Title is missing!. , 2020, 16, e1007708.		0
22	Systematic analysis of F-box proteins reveals a new branch of the yeast mating pathway. Journal of Biological Chemistry, 2019, 294, 14717-14731.	1.6	8
23	Biophysics at the coffee shop: lessons learned working with George Oster. Molecular Biology of the Cell, 2019, 30, 1882-1889.	0.9	4
24	Ratiometric GPCR signaling enables directional sensing in yeast. PLoS Biology, 2019, 17, e3000484.	2.6	27
25	Software for lattice light-sheet imaging of FRET biosensors, illustrated with a new Rap1 biosensor. Journal of Cell Biology, 2019, 218, 3153-3160.	2.3	32
26	Emergent spatiotemporal dynamics of the actomyosin network in the presence of chemical gradients. Integrative Biology (United Kingdom), 2019, 11, 280-292.	0.6	0
27	Quantitative analysis of the yeast pheromone pathway. Yeast, 2019, 36, 495-518.	0.8	18
28	Ratiometric GPCR signaling enables directional sensing in yeast. , 2019, 17, e3000484.		0
29	Ratiometric GPCR signaling enables directional sensing in yeast. , 2019, 17, e3000484.		0
30	Ratiometric GPCR signaling enables directional sensing in yeast. , 2019, 17, e3000484.		0
31	Ratiometric GPCR signaling enables directional sensing in yeast. , 2019, 17, e3000484.		0
32	Ratiometric GPCR signaling enables directional sensing in yeast. , 2019, 17, e3000484.		0
33	Ratiometric GPCR signaling enables directional sensing in yeast. , 2019, 17, e3000484.		0
34	An RNAi screen of Rho signalling networks identifies RhoH as a regulator of Rac1 in prostate cancer cell migration. BMC Biology, 2018, 16, 29.	1.7	26
35	An integrated mathematical epithelial cell model for airway surface liquid regulation by mechanical forces. Journal of Theoretical Biology, 2018, 438, 34-45.	0.8	12
36	Principles that govern competition or co-existence in Rho-GTPase driven polarization. PLoS Computational Biology, 2018, 14, e1006095.	1.5	63

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37	Particle-based simulations of polarity establishment reveal stochastic promotion of Turing pattern formation. <i>PLoS Computational Biology</i> , 2018, 14, e1006016.	1.5	22
38	EdgeProps: A Computational Platform for Correlative Analysis of Cell Dynamics and Near-Edge Protein Activity. <i>Methods in Molecular Biology</i> , 2018, 1821, 47-56.	0.4	6
39	A shadow detector for photosynthesis efficiency. <i>Journal of Theoretical Biology</i> , 2017, 414, 231-244.	0.8	15
40	Mathematical model reveals role of nucleotide signaling in airway surface liquid homeostasis and its dysregulation in cystic fibrosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E7272-E7281.	3.3	23
41	A Reaction-Diffusion Model Explains Amplification of the PLC/PKC Pathway in Fibroblast Chemotaxis. <i>Biophysical Journal</i> , 2017, 113, 185-194.	0.2	10
42	Dose-Duration Reciprocity for G protein activation: Modulation of kinase to substrate ratio alters cell signaling. <i>PLoS ONE</i> , 2017, 12, e0190000.	1.1	13
43	Testing the limits of gradient sensing. <i>PLoS Computational Biology</i> , 2017, 13, e1005386.	1.5	15
44	Modeling the Excess Cell Surface Stored in a Complex Morphology of Bleb-Like Protrusions. <i>PLoS Computational Biology</i> , 2016, 12, e1004841.	1.5	23
45	Expression of an S phase-stabilized version of the CDK inhibitor Dacapo can alter endoreplication. <i>Development (Cambridge)</i> , 2015, 142, 4288-98.	1.2	18
46	Spatio-Temporal Regulation of Rac1 Mobility by Actin Islands. <i>PLoS ONE</i> , 2015, 10, e0143753.	1.1	1
47	MAPK feedback encodes a switch and timer for tunable stress adaptation in yeast. <i>Science Signaling</i> , 2015, 8, ra5.	1.6	46
48	Pheromone-induced morphogenesis and gradient tracking are dependent on the MAPK Fus3 binding to G1 \pm . <i>Molecular Biology of the Cell</i> , 2015, 26, 3343-3358.	0.9	17
49	RGS Proteins and Septins Cooperate to Promote Chemotropism by Regulating Polar Cap Mobility. <i>Current Biology</i> , 2015, 25, 275-285.	1.8	39
50	Signal inhibition by a dynamically regulated pool of monophosphorylated MAPK. <i>Molecular Biology of the Cell</i> , 2015, 26, 3359-3371.	0.9	21
51	Modulation of receptor dynamics by the regulator of G protein signaling Sst2. <i>Molecular Biology of the Cell</i> , 2015, 26, 4124-4134.	0.9	12
52	Role of Polarized G Protein Signaling in Tracking Pheromone Gradients. <i>Developmental Cell</i> , 2015, 35, 471-482.	3.1	54
53	Role of competition between polarity sites in establishing a unique front. <i>ELife</i> , 2015, 4, .	2.8	56
54	Reciprocal Encoding of Signal Intensity and Duration in a Glucose-Sensing Circuit. <i>Cell</i> , 2014, 156, 1084-1095.	13.5	78

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55	Dissecting motility signaling through activation of specific Src-effector complexes. <i>Nature Chemical Biology</i> , 2014, 10, 286-290.	3.9	44
56	User-friendly tools for quantifying the dynamics of cellular morphology and intracellular protein clusters. <i>Methods in Cell Biology</i> , 2014, 123, 409-427.	0.5	15
57	Enabled Negatively Regulates Diaphanous-Driven Actin Dynamics InÂVitro and InÂVivo. <i>Developmental Cell</i> , 2014, 28, 394-408.	3.1	58
58	Cellular Noise Suppression by the Regulator of G Protein Signaling Sst2. <i>Molecular Cell</i> , 2014, 55, 85-96.	4.5	32
59	Tracking Shallow Chemical Gradients by Actin-Driven Wandering of the Polarization Site. <i>Current Biology</i> , 2013, 23, 32-41.	1.8	103
60	Positive roles for negative regulators in the mating response of yeast. <i>Molecular Systems Biology</i> , 2012, 8, 586.	3.2	14
61	An improved short-lived fluorescent protein transcriptional reporter for <i>Saccharomyces cerevisiae</i> . <i>Yeast</i> , 2012, 29, 519-530.	0.8	48
62	Negative Feedback Enhances Robustness in the Yeast Polarity Establishment Circuit. <i>Cell</i> , 2012, 149, 322-333.	13.5	192
63	Yeast Dynamically Modify Their Environment to Achieve Better Mating Efficiency. <i>Science Signaling</i> , 2011, 4, ra54.	1.6	48
64	From physics to pharmacology?. <i>Reports on Progress in Physics</i> , 2011, 74, 016601.	8.1	5
65	Time-Domain Methods for Diffusive Transport in Soft Matter. <i>SIAM Journal on Applied Mathematics</i> , 2009, 69, 1277-1308.	0.8	51
66	Regulation of Cell Signaling Dynamics by the Protein Kinase-Scaffold Ste5. <i>Molecular Cell</i> , 2008, 30, 649-656.	4.5	110
67	Probing Pathways Periodically. <i>Science Signaling</i> , 2008, 1, pe47.	1.6	6
68	A Systems-Biology Analysis of Feedback Inhibition in the Sho1 Osmotic-Stress-Response Pathway. <i>Current Biology</i> , 2007, 17, 659-667.	1.8	97
69	Mathematical and Computational Methods for Studying Energy Transduction in Protein Motors. <i>Journal of Statistical Physics</i> , 2007, 128, 35-76.	0.5	18