Jason M Haugh

List of Publications by Year
in descending order

84 papers	3,114 citations	147566 31 h-index	168136 53 g-index
89 all docs	89 docs citations	89 times ranked	3829 citing authors

#	Article	IF	Citations
1	A kinetic model of phospholipase C-Î³1 linking structure-based insights to dynamics of enzyme autoinhibition and activation. Journal of Biological Chemistry, 2022, 298, 101886.	1.6	3
2	Microfluidic devices fitted with â€œflowverâ€•paper pumps generate steady, tunable gradients for extended observation of chemotactic cell migration. Biomicrofluidics, 2021, 15, 044101.	1.2	1
3	Modeling cell protrusion predicts how Myosin II and actin turnover affect adhesion-based signaling. Biophysical Journal, 2021, , .	0.2	5
4	Optical control of MAP kinase kinase 6 (MKK6) reveals that it has divergent roles in pro-apoptotic and anti-proliferative signaling. Journal of Biological Chemistry, 2020, 295, 8494-8504.	1.6	16
5	Mechanistic models of PLC/PKC signaling implicate phosphatidic acid as a key amplifier of chemotactic gradient sensing. PLoS Computational Biology, 2020, 16, e1007708.	1.5	5
6	Title is missing!. , 2020, 16, e1007708.		0
7	Title is missing!. , 2020, 16, e1007708.		0
8	Title is missing!. , 2020, 16, e1007708.		0
9	Title is missing!. , 2020, 16, e1007708.		0
10	Title is missing!. , 2020, 16, e1007708.		0
11	Emergent spatiotemporal dynamics of the actomyosin network in the presence of chemical gradients. Integrative Biology (United Kingdom), 2019, 11, 280-292.	0.6	0
12	Design and evaluation of engineered protein biosensors for live-cell imaging of EGFR phosphorylation. Science Signaling, 2019, 12, .	1.6	11
13	Simulating Emergent Spatiotemporal Actomyosin Dynamics to Understand Spatial Regulation of Non-Muscle Myosin II. Biophysical Journal, 2019, 116, 251a.	0.2	0
14	A Computational Investigation of Asymmetric Emergent Structures in Actomyosin Dynamics During Chemotaxis. Biophysical Journal, 2018, 114, 381a.	0.2	0
15	Kinetic Modeling and Analysis of the Akt/Mechanistic Target of Rapamycin Complex 1 (mTORC1) Signaling Axis Reveals Cooperative, Feedforward Regulation. Journal of Biological Chemistry, 2017, 292, 2866-2872.	1.6	14
16	A Reaction-Diffusion Model Explains Amplification of the PLC/PKC Pathway in Fibroblast Chemotaxis. Biophysical Journal, 2017, 113, 185-194.	0.2	10
17	Lamellipodia are critical for haptotactic sensing and response. Journal of Cell Science, 2016, 129, 2329-42.	1.2	53
18	Are Filopodia Privileged Signaling Structures in Migrating Cells?. Biophysical Journal, 2016, 111, 1827-1830.	0.2	5

#	Article	IF	Citations
19	Quantitative analysis of B-lymphocyte migration directed by CXCL13. Integrative Biology (United) Tj ETQq1 1 0.784314 rgBT /Overlock	0.6	9
20	Linking morphodynamics and directional persistence of T lymphocyte migration. Journal of the Royal Society Interface, 2015, 12, 20141412.	1.5	11
21	F-actin bundles direct the initiation and orientation of lamellipodia through adhesion-based signaling. Journal of Cell Biology, 2015, 208, 443-455.	2.3	87
22	Development of a tandem affinity phosphoproteomic method with motif selectivity and its application in analysis of signal transduction networks. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2015, 988, 166-174.	1.2	10
23	GMFÎ² controls branched actin content and lamellipodial retraction in fibroblasts. Journal of Cell Biology, 2015, 209, 803-812.	2.3	32
24	Profilin-1 Serves as a Gatekeeper for Actin Assembly by Arp2/3-Dependent and -Independent Pathways. Developmental Cell, 2015, 32, 54-67.	3.1	241
25	Bi-ligand surfaces with oriented and patterned protein for real-time tracking of cell migration. Colloids and Surfaces B: Biointerfaces, 2014, 123, 225-235.	2.5	4
26	Dataâ€driven modeling reconciles kinetics of <scp>ERK</scp> phosphorylation, localization, and activity states. Molecular Systems Biology, 2014, 10, 718.	3.2	54
27	Mesenchymal Chemotaxis Requires Selective Inactivation of Myosin II at the Leading Edge via a Noncanonical PLCÎ³/PKCÎ± Pathway. Developmental Cell, 2014, 31, 747-760.	3.1	72
28	Deactivation of a Negative Regulator: A Distinct Signal Transduction Mechanism, Pronounced in Akt Signaling. Biophysical Journal, 2014, 107, L29-L32.	0.2	4
29	Directed migration of mesenchymal cells: where signaling and the cytoskeleton meet. Current Opinion in Cell Biology, 2014, 30, 74-82.	2.6	150
30	Bidirectional coupling between integrin-mediated signaling and actomyosin mechanics explains matrix-dependent intermittency of leading-edge motility. Molecular Biology of the Cell, 2013, 24, 3945-3955.	0.9	27
31	Quantitative Analysis of Phosphoinositide 3â€Kinase (PI3K) Signaling Using Liveâ€Cell Total Internal Reflection Fluorescence (TIRF) Microscopy. Current Protocols in Cell Biology, 2013, 61, 14.14.1-14.14.24.	2.3	5
32	Fibroblast Migration Is Regulated by Myristoylated Alanine-Rich C-Kinase Substrate (MARCKS) Protein. PLoS ONE, 2013, 8, e66512.	1.1	23
33	Stochastic Models of Cell Protrusion Arising From Spatiotemporal Signaling and Adhesion Dynamics. Methods in Cell Biology, 2012, 110, 223-241.	0.5	5
34	Migrating fibroblasts reorient directionality by a metastable, PI3K-dependent mechanism. Journal of Cell Biology, 2012, 197, 105-114.	2.3	93
35	Data-driven modelling of receptor tyrosine kinase signalling networks quantifies receptor-specific potencies of PI3K- and Ras-dependent ERK activation. Biochemical Journal, 2012, 441, 77-85.	1.7	23
36	Live-Cell Fluorescence Microscopy with Molecular Biosensors: What Are We Really Measuring?. Biophysical Journal, 2012, 102, 2003-2011.	0.2	30

#	ARTICLE	IF	CITATIONS
37	Cell regulation: A time to signal, a time to respond (Comment on DOI 10.1002/bies.201100172). BioEssays, 2012, 34, 528-529.	1.2	1
38	Systemic Perturbation of the ERK Signaling Pathway by the Proteasome Inhibitor, MG132. PLoS ONE, 2012, 7, e50975.	1.1	15
39	Poly(vinylmethylsiloxane) Elastomer Networks as Functional Materials for Cell Adhesion and Migration Studies. Biomacromolecules, 2011, 12, 1265-1271.	2.6	17
40	Guidelines for visualizing and annotating rule-based models. Molecular BioSystems, 2011, 7, 2779.	2.9	36
41	In Chemotaxing Fibroblasts, Both High-Fidelity and Weakly Biased Cell Movements Track the Localization of PI3K Signaling. Biophysical Journal, 2011, 100, 1893-1901.	0.2	27
42	Signaling pathways that control cell migration: models and analysis. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2011, 3, 231-240.	6.6	59
43	Quantitative models of signal transduction networks. Communicative and Integrative Biology, 2011, 4, 353-356.	0.6	6
44	Allosteric Modulation of Ras-GTP Is Linked to Signal Transduction through RAF Kinase. Journal of Biological Chemistry, 2011, 286, 3323-3331.	1.6	74
45	Cells see the light to bring signaling under control. Nature Methods, 2011, 8, 808-809.	9.0	0
46	PI3Kâ€dependent crossâ€talk interactions converge with Ras as quantifiable inputs integrated by Erk. Molecular Systems Biology, 2011, 7, .	3.2	0
47	Stochastic Dynamics of Membrane Protrusion Mediated by the DOCK180/Rac Pathway in Migrating Cells. Cellular and Molecular Bioengineering, 2010, 3, 30-39.	1.0	13
48	Systematic Quantification of Negative Feedback Mechanisms in the Extracellular Signal-regulated Kinase (ERK) Signaling Network. Journal of Biological Chemistry, 2010, 285, 36736-36744.	1.6	80
49	Stochastic Model of Integrin-Mediated Signaling and Adhesion Dynamics at the Leading Edges of Migrating Cells. PLoS Computational Biology, 2010, 6, e1000688.	1.5	52
50	Directional Persistence of Cell Migration Coincides with Stability of Asymmetric Intracellular Signaling. Biophysical Journal, 2010, 98, 67-75.	0.2	47
51	PI3Kâ€dependent crossâ€talk interactions converge with Ras as quantifiable inputs integrated by Erk. Molecular Systems Biology, 2009, 5, 246.	3.2	69
52	A Bipolar Clamp Mechanism for Activation of Jak-Family Protein Tyrosine Kinases. PLoS Computational Biology, 2009, 5, e1000364.	1.5	17
53	Spontaneous phosphoinositide 3-kinase signaling dynamics drive spreading and random migration of fibroblasts. Journal of Cell Science, 2009, 122, 313-323.	1.2	76
54	Analysis of Reaction-Diffusion Systems with Anomalous Subdiffusion. Biophysical Journal, 2009, 97, 435-442.	0.2	28

#	Article	IF	Citations
55	Combinatorial Signal Transduction Responses Mediated by Interleukin-2 and -4 Receptors in a Helper TH2 Cell Line. Cellular and Molecular Bioengineering, 2008, 1, 163-172.	1.0	0
56	Cells get in shape for a crawl. Nature, 2008, 453, 461-462.	13.7	1
57	Signal Transduction at Point-Blank Range: Analysis of a Spatial Coupling Mechanism for Pathway Crosstalk. Biophysical Journal, 2008, 95, 2172-2182.	0.2	9
58	Computational Models of Tandem Src Homology 2 Domain Interactions and Application to Phosphoinositide 3-Kinase. Journal of Biological Chemistry, 2008, 283, 7338-7345.	1.6	18
59	Cell population-based model of dermal wound invasion with heterogeneous intracellular signaling properties. Cell Adhesion and Migration, 2008, 2, 137-145.	1.1	8
60	Structure-Based Kinetic Models of Modular Signaling Protein Function: Focus on Shp2. Biophysical Journal, 2007, 92, 2290-2300.	0.2	46
61	Membrane-Binding/Modification Model of Signaling Protein Activation and Analysis of Its Control by Cell Morphology. Biophysical Journal, 2007, 92, L93-L95.	0.2	10
62	Deterministic Model of Dermal Wound Invasion Incorporating Receptor-Mediated Signal Transduction and Spatial Gradient Sensing. Biophysical Journal, 2006, 90, 2297-2308.	0.2	52
63	Quantitative model of Rasâ€“phosphoinositide 3-kinase signalling cross-talk based on co-operative molecular assembly. Biochemical Journal, 2006, 393, 235-243.	1.7	23
64	Effectiveness factor for spatial gradient sensing in living cells. Chemical Engineering Science, 2006, 61, 5603-5611.	1.9	9
65	Mechanisms of Gradient Sensing and Chemotaxis: Conserved Pathways, Diverse Regulation. Cell Cycle, 2006, 5, 1130-1134.	1.3	74
66	Quantitative elucidation of a distinct spatial gradient-sensing mechanism in fibroblasts. Journal of Cell Biology, 2005, 171, 883-892.	2.3	101
67	Reactions on cell membranes: Comparison of continuum theory and Brownian dynamics simulations. Journal of Chemical Physics, 2005, 123, 074908.	1.2	24
68	Spatial Analysis of 3â€² Phosphoinositide Signaling in Living Fibroblasts, III: Influence of Cell Morphology and Morphological Polarity. Biophysical Journal, 2005, 89, 1420-1430.	0.2	24
69	Mathematical Model of Human Growth Hormone (hGH)-Stimulated Cell Proliferation Explains the Efficacy of hGH Variants as Receptor Agonists or Antagonists. Biotechnology Progress, 2004, 20, 1337-1344.	1.3	24
70	On the cross-regulation of protein tyrosine phosphatases and receptor tyrosine kinases in intracellular signaling. Journal of Theoretical Biology, 2004, 230, 119-132.	0.8	16
71	Spatial Analysis of 3â€² Phosphoinositide Signaling in Living Fibroblasts: I. Uniform Stimulation Model and Bounds on Dimensionless Groups. Biophysical Journal, 2004, 86, 589-598.	0.2	23
72	Spatial Analysis of 3â€² Phosphoinositide Signaling in Living Fibroblasts: II. Parameter Estimates for Individual Cells from Experiments. Biophysical Journal, 2004, 86, 599-608.	0.2	34

#	Article	IF	Citations
73	Kinetic Analysis of Platelet-derived Growth Factor Receptor/Phosphoinositide 3-Kinase/Akt Signaling in Fibroblasts. Journal of Biological Chemistry, 2003, 278, 37064-37072.	1.6	89
74	A Unified Model for Signal Transduction Reactions in Cellular Membranes. Biophysical Journal, 2002, 82, 591-604.	0.2	32
75	Localization of Receptor-Mediated Signal Transduction Pathways: The Inside Story. Molecular Interventions: Pharmacological Perspectives From Biology, Chemistry and Genomics, 2002, 2, 292-307.	3.4	43
76	Active EGF receptors have limited access to PtdIns(4,5)<i>P</i>2 in endosomes: implications for phospholipase C and PI 3-kinase signaling. Journal of Cell Science, 2002, 115, 303-310.	1.2	60
77	Active EGF receptors have limited access to PtdIns(4,5)P(2) in endosomes: implications for phospholipase C and PI 3-kinase signaling. Journal of Cell Science, 2002, 115, 303-10.	1.2	47
78	Mathematical modeling of epidermal growth factor receptor signaling through the phospholipase C pathway: Mechanistic insights and predictions for molecular interventions. Biotechnology and Bioengineering, 2000, 70, 225-238.	1.7	41
79	Spatial Sensing in Fibroblasts Mediated by 3â€² Phosphoinositides. Journal of Cell Biology, 2000, 151, 1269-1280.	2.3	289
80	Internalized Epidermal Growth Factor Receptors Participate in the Activation of p21 in Fibroblasts. Journal of Biological Chemistry, 1999, 274, 34350-34360.	1.6	134
81	Effect of Epidermal Growth Factor Receptor Internalization on Regulation of the Phospholipase C-Î³1 Signaling Pathway. Journal of Biological Chemistry, 1999, 274, 8958-8965.	1.6	104
82	Analysis of Receptor Internalization as a Mechanism for Modulating Signal Transduction. Journal of Theoretical Biology, 1998, 195, 187-218.	0.8	50
83	Scratching the (cell) surface: cytokine engineering for improved ligand/receptor trafficking dynamics. Chemistry and Biology, 1998, 5, R257-R263.	6.2	34
84	Physical modulation of intracellular signaling processes by locational regulation. Biophysical Journal, 1997, 72, 2014-2031.	0.2	72