Aryeh Warmflash

List of Publications by Year
in descending order

47 papers	2,994 citations	304743 22 h-index	233421 45 g-index
61 all docs	61 docs citations	61 times ranked	3643 citing authors

#	Article	IF	Citations
1	A method to recapitulate early embryonic spatial patterning in human embryonic stem cells. Nature Methods, 2014, 11, 847-854.	19.0	680
2	Multilineage Transcriptional Priming and Determination of Alternate Hematopoietic Cell Fates. Cell, 2006, 126, 755-766.	28.9	572
3	Dissecting the dynamics of signaling events in the BMP, WNT, and NODAL cascade during self-organized fate patterning in human gastruloids. PLoS Biology, 2019, 17, e3000498.	5.6	129
4	Self-organization of human embryonic stem cells on micropatterns. Nature Protocols, 2016, 11, 2223-2232.	12.0	119
5	An incoherent regulatory network architecture that orchestrates B cell diversification in response to antigen signaling. Molecular Systems Biology, 2011, 7, 495.	7.2	111
6	Umbrella sampling for nonequilibrium processes. Journal of Chemical Physics, 2007, 127, 154112.	3.0	110
7	Human neural tube morphogenesis in vitro by geometric constraints. Nature, 2021, 599, 268-272.	27.8	107
8	Encoding of Temporal Signals by the TGF-β Pathway and Implications for Embryonic Patterning. Developmental Cell, 2014, 30, 334-342.	7.0	101
9	Dynamics of TGF-β signaling reveal adaptive and pulsatile behaviors reflected in the nuclear localization of transcription factor Smad4. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1947-56.	7.1	89
10	Stem-cell-based embryo models for fundamental research and translation. Nature Materials, 2021, 20, 132-144.	27.5	86
11	Endothelial cells decode VEGF-mediated Ca^{2+} signaling patterns to produce distinct functional responses. Science Signaling, 2016, 9, ra20.	3.6	85
12	Rapid changes in morphogen concentration control self-organized patterning in human embryonic stem cells. ELife, 2019, 8, .	6.0	84
13	Separating forward and backward pathways in nonequilibrium umbrella sampling. Journal of Chemical Physics, 2009, 131, 154104.	3.0	70
14	Nonequilibrium umbrella sampling in spaces of many order parameters. Journal of Chemical Physics, 2009, 130, 074104.	3.0	68
15	Morphogen and community effects determine cell fates in response to BMP4 signaling in human embryonic stem cells. Development (Cambridge), 2017, 144, 3042-3053.	2.5	60
16	Synergy with TGFβ ligands switches WNT pathway dynamics from transient to sustained during human pluripotent cell differentiation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4989-4998.	7.1	47
17	A novel self-organizing embryonic stem cell system reveals signaling logic underlying the patterning of human ectoderm. Development (Cambridge), 2019, 146, .	2.5	44
18	Signatures of combinatorial regulation in intrinsic biological noise. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17262-17267.	7.1	35

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19	SMAD7 Directly Converts Human Embryonic Stem Cells to Telencephalic Fate by a Default Mechanism. Stem Cells, 2013, 31, 35-47.	3.2	35
20	Pareto evolution of gene networks: an algorithm to optimize multiple fitness objectives. Physical Biology, 2012, 9, 056001.	1.8	30
21	BMP-treated human embryonic stem cells transcriptionally resemble amnion cells in the monkey embryo. Biology Open, 2021, 10, .	1.2	30
22	Roadmap for the multiscale coupling of biochemical and mechanical signals during development. Physical Biology, 2021, 18, 041501.	1.8	29
23	Nodal is a short-range morphogen with activity that spreads through a relay mechanism in human gastruloids. Nature Communications, 2022, 13, 497.	12.8	29
24	Pluripotent stem cells as a model for embryonic patterning: From signaling dynamics to spatial organization in a dish. Developmental Dynamics, 2016, 245, 976-990.	1.8	27
25	Modeling Mammalian Gastrulation With Embryonic Stem Cells. Current Topics in Developmental Biology, 2018, 129, 1-23.	2.2	23
26	Mesenchymal-epithelial transition regulates initiation of pluripotency exit before gastrulation. Development (Cambridge), 2020, 147, .	2.5	20
27	A Model for TCR Gene Segment Use. Journal of Immunology, 2006, 177, 3857-3864.	0.8	16
28	Insights into mammalian morphogen dynamics from embryonic stem cell systems. Current Topics in Developmental Biology, 2020, 137, 279-305.	2.2	16
29	Stem cell-based models of embryos: The need for improved naming conventions. Stem Cell Reports, 2021, 16, 1014-1020.	4.8	15
30	Self-organized signaling in stem cell models of embryos. Stem Cell Reports, 2021, 16, 1065-1077.	4.8	13
31	The molecular circuitry underlying pluripotency in embryonic stem cells. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2012, 4, 443-456.	6.6	12
32	Coco is a dual-activity modulator of TGF-β signaling. Development (Cambridge), 2015, 142, 2678-85.	2.5	12
33	Quantifying cell transitions in C. elegans with data-fitted landscape models. PLoS Computational Biology, 2021, 17, e1009034.	3.2	12
34	How noise statistics impact models of enzyme cycles. Journal of Chemical Physics, 2008, 128, 225101.	3.0	9
35	Synthetic Embryos: Windows into Mammalian Development. Cell Stem Cell, 2017, 20, 581-582.	11.1	6
36	Modeling gene regulatory networks for cell fate specification. , 0, , 121-154.		5

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37	Conservation of Epithelial-to-Mesenchymal Transition Process in Neural Crest Cells and Metastatic Cancer. Cells Tissues Organs, 2021, 210, 151-172.	2.3	5
38	Critical behavior of a model for catalyzed autoamplification. Journal of Chemical Physics, 2009, 130, 134906.	3.0	4
39	Rapid fabrication of hydrogel micropatterns by projection stereolithography for studying self-organized developmental patterning. PLoS ONE, 2021, 16, e0245634.	2.5	4
40	Control of Genotypic Allelic Inclusion through TCR Surface Expression. Journal of Immunology, 2005, 175, 6412-6419.	0.8	3
41	Signaling dynamics and embryonic development. Cell Cycle, 2012, 11, 3529-3530.	2.6	3
42	Fate-Patterning of 2D Gastruloids and Ectodermal Colonies Using Micropatterned Human Pluripotent Stem Cells. Methods in Molecular Biology, 2021, 2258, 119-130.	0.9	3
43	cytoNet: Spatiotemporal network analysis of cell communities. PLoS Computational Biology, 2022, 18, e1009846.	3.2	3
44	Field theoretic treatment of an effective action for a model of catalyzed autoamplification. Physical Review E, 2010, 81, 011112.	2.1	1
45	Comment on â€œControlling long-term signaling: Receptor dynamics determine attenuation and refractory behavior of the TGF-Î² pathwayâ€â€”Smad2/3 activity does not predict the dynamics of transcription. Science Signaling, 2014, 7, lc1.	3.6	0
46	S-MiRAGE: A Quantitative, Secreted RNA-Based Reporter of Gene Expression and Cell Persistence. ACS Synthetic Biology, 2019, 8, 25-33.	3.8	0
47	Reaction-diffusion models for morphological patterning of hESCs. Journal of Mathematical Biology, 2021, 83, 55.	1.9	0