Ben D Macarthur

List of Publications by Year
in descending order

60	5,642	304743 22	168389 53
papers	citations	h-index	g-index

78	78	78	9169
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The geometry of cell fate. Cell Systems, 2022, 13, 1-3.	6.2	8
2	Fluctuations in T cell receptor and pMHC interactions regulate T cell activation. Journal of the Royal Society Interface, 2022, 19, 20210589.	3.4	4
3	Micro RNA Targets in HIV Latency: Insights into Novel Layers of Latency Control. AIDS Research and Human Retroviruses, 2021, 37, 109-121.	1.1	11
4	Modeling Stem Cell Fates using Non-Markov Processes. Cell Stem Cell, 2021, 28, 187-190.	11.1	0
5	Will social media banish the bleep? An analysis of hospital pager activity and instant messaging patterns. BMJ Open Quality, 2021, 10, e001100.	1.1	2
6	An Esrrb and Nanog Cell Fate Regulatory Module Controlled by Feed Forward Loop Interactions. Frontiers in Cell and Developmental Biology, 2021, 9, 630067.	3.7	8
7	Universal principles of lineage architecture and stem cell identity in renewing tissues. Development (Cambridge), 2021, 148, .	2.5	11
8	An IRF1-IRF4 Toggle-Switch Controls Tolerogenic and Immunogenic Transcriptional Programming in Human Langerhans Cells. Frontiers in Immunology, 2021, 12, 665312.	4.8	9
9	Geometry and symmetry in biochemical reaction systems. Theory in Biosciences, 2021, 140, 265-277.	1.4	1
10	Theory of cell fate. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2020, 12, e1471.	6.6	19
11	Transfer learning efficiently maps bone marrow cell types from mouse to human using single-cell RNA sequencing. Communications Biology, 2020, 3, 736.	4.4	18
12	Machine Learning of Hematopoietic Stem Cell Divisions from Paired Daughter Cell Expression Profiles Reveals Effects of Aging on Self-Renewal. Cell Systems, 2020, 11, 640-652.e5.	6.2	12
13	Single platelet variability governs population sensitivity and initiates intrinsic heterotypic responses. Communications Biology, 2020, 3, 281.	4.4	7
14	A systematic review of the applications of artificial intelligence and machine learning in autoimmune diseases. Npj Digital Medicine, 2020, 3, 30.	10.9	137
15	Genomic programming of IRF4-expressing human Langerhans cells. Nature Communications, 2020, 11, 313.	12.8	22
16	From mathematical modeling and machine learning to clinical reality. , 2020, , 37-51.		4
17	Heterogeneity and â€˜memoryâ€™ in stem cell populations. Physical Biology, 2020, 17, 065013.	1.8	4
18	Beginning of a New Era: Mapping the Bone Marrow Niche. Cell, 2019, 177, 1679-1681.	28.9	3

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19	GenePy - a score for estimating gene pathogenicity in individuals using next-generation sequencing data. BMC Bioinformatics, 2019, 20, 254.	2.6	21
20	Machine Learning of Stem Cell Identities From Single-Cell Expression Data via Regulatory Network Archetypes. Frontiers in Genetics, 2019, 10, 2.	2.3	14
21	Stability and steady state of complex cooperative systems: a diakoptic approach. Royal Society Open Science, 2019, 6, 191090.	2.4	6
22	Thrombopoietin Metabolically Primes Hematopoietic Stem Cells to Megakaryocyte-Lineage Differentiation. Cell Reports, 2018, 25, 1772-1785.e6.	6.4	62
23	Connected development. Nature Physics, 2018, 14, 975-976.	16.7	0
24	Nanog Fluctuations in Embryonic Stem Cells Highlight the Problem of Measurement in Cell Biology. Biophysical Journal, 2017, 112, 2641-2652.	0.5	20
25	Classification of Paediatric Inflammatory Bowel Disease using Machine Learning. Scientific Reports, 2017, 7, 2427.	3.3	119
26	The telomere binding protein Pot1 maintains haematopoietic stem cell activity with age. Nature Communications, 2017, 8, 804.	12.8	23
27	Stem Cell Differentiation as a Non-Markov Stochastic Process. Cell Systems, 2017, 5, 268-282.e7.	6.2	178
28	Information-Theoretic Approaches to Understanding Stem Cell Variability. Current Stem Cell Reports, 2017, 3, 225-231.	1.6	5
29	Noise-processing by signaling networks. Scientific Reports, 2017, 7, 532.	3.3	14
30	Hematopoietic Stem Cells Count and Remember Self-Renewal Divisions. Cell, 2016, 167, 1296-1309.e10.	28.9	216
31	Single-cell pluripotency regulatory networks. Proteomics, 2016, 16, 2303-2312.	2.2	8
32	Quantifying the cumulative effect of lowâ€penetrance genetic variants on breast cancer risk. Molecular Genetics & Genomic Medicine, 2015, 3, 182-188.	1.2	1
33	Entropy, Ergodicity, and Stem Cell Multipotency. Physical Review Letters, 2015, 115, 208103.	7.8	32
34	Single-Cell Analyses of ESCs Reveal Alternative Pluripotent Cell States and Molecular Mechanisms that Control Self-Renewal. Stem Cell Reports, 2015, 5, 207-220.	4.8	40
35	Collective dynamics of stem cell populations. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3653-3654.	7.1	17
36	From Mathematical Models to Clinical Reality. , 2014, , 25-39.		0

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37	Visualization and Clustering of High-Dimensional Transcriptome Data Using GATE. Methods in Molecular Biology, 2014, 1150, 131-139.	0.9	0
38	Statistical Mechanics of Pluripotency. Cell, 2013, 154, 484-489.	28.9	159
39	Power-Laws and the Use of Pluripotent Stem Cell Lines. PLoS ONE, 2013, 8, e52068.	2.5	6
40	Nanog-dependent feedback loops regulate murine embryonic stem cell heterogeneity. Nature Cell Biology, 2012, 14, 1139-1147.	10.3	141
41	Cell Fate Regulatory Networks. , 2012, , 15-29.		1
42	Mesenchymal and haematopoietic stem cells form a unique bone marrow niche. Nature, 2010, 466, 829-834.	27.8	2,935
43	GATE: software for the analysis and visualization of high-dimensional time series expression data. Bioinformatics, 2010, 26, 143-144.	4.1	29
44	Microdynamics and Criticality of Adaptive Regulatory Networks. Physical Review Letters, 2010, 104, 168701.	7.8	13
45	Spectral characteristics of network redundancy. Physical Review E, 2009, 80, 026117.	2.1	53
46	Systems-level dynamic analyses of fate change in murine embryonic stem cells. Nature, 2009, 462, 358-362.	27.8	277
47	Systems biology of stem cell fate and cellular reprogramming. Nature Reviews Molecular Cell Biology, 2009, 10, 672-681.	37.0	330
48	Coordinated Regulation of Hematopoietic and Mesenchymal Stem Cells in a Bone Marrow Niche.. Blood, 2009, 114, 2-2.	1.4	6
49	Symmetry in complex networks. Discrete Applied Mathematics, 2008, 156, 3525-3531.	0.9	134
50	Stochasticity and the Molecular Mechanisms of Induced Pluripotency. PLoS ONE, 2008, 3, e3086.	2.5	81
51	Toward Stem Cell Systems Biology: From Molecules to Networks and Landscapes. Cold Spring Harbor Symposia on Quantitative Biology, 2008, 73, 211-215.	1.1	28
52	Identification of candidate regulators of multipotency in human skeletal progenitor cells. Biochemical and Biophysical Research Communications, 2008, 377, 68-72.	2.1	12
53	Network quotients: Structural skeletons of complex systems. Physical Review E, 2008, 78, 046102.	2.1	40
54	A non-invasive method for in situ quantification of subpopulation behaviour in mixed cell culture. Journal of the Royal Society Interface, 2006, 3, 63-69.	3.4	9

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55	Bridging the gap. Nature, 2005, 433, 19-19.	27.8	96
56	A right to voice dissent against the establishment. Nature, 2005, 433, 355-355.	27.8	0
57	Heterogeneous proliferation within engineered cartilaginous tissue: the role of oxygen tension. Biotechnology and Bioengineering, 2005, 91, 607-615.	3.3	155
58	A mathematical model of dynamic gliomaâ€“host interactions: receptor-mediated invasion and local proteolysis. Mathematical Medicine and Biology, 2005, 22, 247-264.	1.2	5
59	Residual stress generation and necrosis formation in multi-cell tumour spheroids. Journal of Mathematical Biology, 2004, 49, 537-552.	1.9	20
60	Mathematical modelling of skeletal repair. Biochemical and Biophysical Research Communications, 2004, 313, 825-833.	2.1	31