

# David R Mcclay

## List of Publications by Year in descending order

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97  
papers

8,743  
citations

66234

42  
h-index

45213

90  
g-index

119  
all docs

119  
docs citations

119  
times ranked

6380  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Genomic Regulatory Network for Development. <i>Science</i> , 2002, 295, 1669-1678.	6.0	1,399
2	Guidelines and definitions for research on epithelial-mesenchymal transition. <i>Nature Reviews Molecular Cell Biology</i> , 2020, 21, 341-352.	16.1	1,195
3	The Genome of the Sea Urchin <i>Strongylocentrotus purpuratus</i> . <i>Science</i> , 2006, 314, 941-952.	6.0	1,018
4	A Provisional Regulatory Gene Network for Specification of Endomesoderm in the Sea Urchin Embryo. <i>Developmental Biology</i> , 2002, 246, 162-190.	0.9	319
5	Regulatory gene networks and the properties of the developmental process. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 1475-1480.	3.3	211
6	Cell lineage conversion in the sea urchin embryo. <i>Developmental Biology</i> , 1988, 125, 396-409.	0.9	192
7	Ontogeny of the basal lamina in the sea urchin embryo. <i>Developmental Biology</i> , 1984, 103, 235-245.	0.9	179
8	Three cell recognition changes accompany the ingression of sea urchin primary mesenchyme cells. <i>Developmental Biology</i> , 1985, 107, 66-74.	0.9	151
9	Characterization of the Role of Cadherin in Regulating Cell Adhesion during Sea Urchin Development. <i>Developmental Biology</i> , 1997, 192, 323-339.	0.9	148
10	Evolutionary crossroads in developmental biology: sea urchins. <i>Development (Cambridge)</i> , 2011, 138, 2639-2648.	1.2	141
11	Sequential expression of germ-layer specific molecules in the sea urchin embryo. <i>Developmental Biology</i> , 1985, 111, 451-463.	0.9	136
12	FGF signals guide migration of mesenchymal cells, control skeletal morphogenesis and regulate gastrulation during sea urchin development. <i>Development (Cambridge)</i> , 2008, 135, 353-365.	1.2	133
13	Evolution of the Wnt Pathways. <i>Methods in Molecular Biology</i> , 2008, 469, 3-18.	0.4	130
14	Activation of pmar1 controls specification of micromeres in the sea urchin embryo. <i>Developmental Biology</i> , 2003, 258, 32-43.	0.9	128
15	Nuclear $\beta$ -catenin-dependent Wnt8 signaling in vegetal cells of the early sea urchin embryo regulates gastrulation and differentiation of endoderm and mesodermal cell lineages. <i>Genesis</i> , 2004, 39, 194-205.	0.8	117
16	The Role of Brachyury (T) during Gastrulation Movements in the Sea Urchin <i>Lytechinus variegatus</i> . <i>Developmental Biology</i> , 2001, 239, 132-147.	0.9	116
17	Repression of mesodermal fate by foxa, a key endoderm regulator of the sea urchin embryo. <i>Development (Cambridge)</i> , 2006, 133, 4173-4181.	1.2	116
18	Sub-circuits of a gene regulatory network control a developmental epithelial-mesenchymal transition. <i>Development (Cambridge)</i> , 2014, 141, 1503-1513.	1.2	109

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19	Vasa protein expression is restricted to the small micromeres of the sea urchin, but is inducible in other lineages early in development. <i>Developmental Biology</i> , 2008, 314, 276-286.	0.9	101
20	Dynamics of Delta/Notch signaling on endomesoderm segregation in the sea urchin embryo. <i>Development (Cambridge)</i> , 2010, 137, 83-91.	1.2	87
21	The Snail repressor is required for PMC ingression in the sea urchin embryo. <i>Development (Cambridge)</i> , 2007, 134, 1061-1070.	1.2	85
22	Changes in the Pattern of Adherens Junction-Associated $\beta$ -Catenin Accompany Morphogenesis in the Sea Urchin Embryo. <i>Developmental Biology</i> , 1997, 192, 310-322.	0.9	80
23	Target recognition by the archenteron during sea urchin gastrulation. <i>Developmental Biology</i> , 1990, 142, 86-102.	0.9	78
24	p38 MAPK is essential for secondary axis specification and patterning in sea urchin embryos. <i>Development (Cambridge)</i> , 2006, 133, 21-32.	1.2	78
25	LvNotch signaling plays a dual role in regulating the position of the ectoderm-endoderm boundary in the sea urchin embryo. <i>Development (Cambridge)</i> , 2001, 128, 2221-2232.	1.2	78
26	Comparative Developmental Transcriptomics Reveals Rewiring of a Highly Conserved Gene Regulatory Network during a Major Life History Switch in the Sea Urchin Genus <i>Haliocidaris</i> . <i>PLoS Biology</i> , 2016, 14, e1002391.	2.6	78
27	A genome-wide survey of the evolutionarily conserved Wnt pathways in the sea urchin <i>Strongylocentrotus purpuratus</i> . <i>Developmental Biology</i> , 2006, 300, 121-131.	0.9	76
28	Frizzled5/8 is required in secondary mesenchyme cells to initiate archenteron invagination during sea urchin development. <i>Development (Cambridge)</i> , 2006, 133, 547-557.	1.2	76
29	A Molecular Analysis of Hyalinin—A Substrate for Cell Adhesion in the Hyaline Layer of the Sea Urchin Embryo. <i>Developmental Biology</i> , 1998, 193, 115-126.	0.9	75
30	The regulation of primary mesenchyme cell migration in the sea urchin embryo: Transplantations of cells and latex beads. <i>Developmental Biology</i> , 1986, 117, 380-391.	0.9	73
31	Spdeadringer, a sea urchin embryo gene required separately in skeletogenic and oral ectoderm gene regulatory networks. <i>Developmental Biology</i> , 2003, 261, 55-81.	0.9	67
32	SpHnf6, a transcription factor that executes multiple functions in sea urchin embryogenesis. <i>Developmental Biology</i> , 2004, 273, 226-243.	0.9	66
33	The canonical Wnt pathway in embryonic axis polarity. <i>Seminars in Cell and Developmental Biology</i> , 2006, 17, 168-174.	2.3	64
34	Chordin is required for neural but not axial development in sea urchin embryos. <i>Developmental Biology</i> , 2009, 328, 221-233.	0.9	64
35	Short-range Wnt5 signaling initiates specification of sea urchin posterior ectoderm. <i>Development (Cambridge)</i> , 2013, 140, 4881-4889.	1.2	64
36	The Role of Thin Filopodia in Motility and Morphogenesis. <i>Experimental Cell Research</i> , 1999, 253, 296-301.	1.2	60

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37	Wnt6 activates endoderm in the sea urchin gene regulatory network. <i>Development (Cambridge)</i> , 2011, 138, 3297-3306.	1.2	60
38	Genomics and expression profiles of the Hedgehog and Notch signaling pathways in sea urchin development. <i>Developmental Biology</i> , 2006, 300, 153-164.	0.9	59
39	Skeletal Pattern Is Specified Autonomously by the Primary Mesenchyme Cells in Sea Urchin Embryos. <i>Developmental Biology</i> , 1994, 162, 329-338.	0.9	58
40	LvTbx2/3: a T-box family transcription factor involved in formation of the oral/aboral axis of the sea urchin embryo. <i>Development (Cambridge)</i> , 2003, 130, 1989-1999.	1.2	56
41	MOLECULAR HETEROCHRONIES AND HETEROTOPIES IN EARLY ECHINOID DEVELOPMENT. <i>Evolution; International Journal of Organic Evolution</i> , 1989, 43, 803-813.	1.1	55
42	Branching out: Origins of the sea urchin larval skeleton in development and evolution. <i>Genesis</i> , 2014, 52, 173-185.	0.8	50
43	Morphogenesis in sea urchin embryos: linking cellular events to gene regulatory network states. <i>Wiley Interdisciplinary Reviews: Developmental Biology</i> , 2012, 1, 231-252.	5.9	46
44	Ingression of primary mesenchyme cells of the sea urchin embryo: A precisely timed epithelial mesenchymal transition. <i>Birth Defects Research Part C: Embryo Today Reviews</i> , 2007, 81, 241-252.	3.6	45
45	Twist is an essential regulator of the skeletogenic gene regulatory network in the sea urchin embryo. <i>Developmental Biology</i> , 2008, 319, 406-415.	0.9	45
46	RhoA regulates initiation of invagination, but not convergent extension, during sea urchin gastrulation. <i>Developmental Biology</i> , 2006, 292, 213-225.	0.9	43
47	Frizzled1/2/7 signaling directs $\beta$ -catenin nuclearisation and initiates endoderm specification in macromeres during sea urchin embryogenesis. <i>Development (Cambridge)</i> , 2012, 139, 816-825.	1.2	42
48	Chapter 17 Embryo Dissociation, Cell Isolation, and Cell Reassociation. <i>Methods in Cell Biology</i> , 1986, 27, 309-323.	0.5	41
49	Hedgehog signaling patterns mesoderm in the sea urchin. <i>Developmental Biology</i> , 2009, 331, 26-37.	0.9	41
50	Chromosomal-Level Genome Assembly of the Sea Urchin <i>Lytechinus variegatus</i> Substantially Improves Functional Genomic Analyses. <i>Genome Biology and Evolution</i> , 2020, 12, 1080-1086.	1.1	41
51	LvGroucho and nuclear $\beta$ -catenin functionally compete for Tcf binding to influence activation of the endomesoderm gene regulatory network in the sea urchin embryo. <i>Developmental Biology</i> , 2005, 279, 252-267.	0.9	40
52	Deployment of a retinal determination gene network drives directed cell migration in the sea urchin embryo. <i>ELife</i> , 2015, 4, .	2.8	40
53	Hedgehog Signaling Requires Motile Cilia in the Sea Urchin. <i>Molecular Biology and Evolution</i> , 2014, 31, 18-22.	3.5	39
54	Identification of neural transcription factors required for the differentiation of three neuronal subtypes in the sea urchin embryo. <i>Developmental Biology</i> , 2018, 435, 138-149.	0.9	38

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55	Î±SU2, an Epithelial Integrin That Binds Laminin in the Sea Urchin Embryo. <i>Developmental Biology</i> , 1999, 207, 1-13.	0.9	33
56	Neuronal-glia interactions: Complexity of neurite outgrowth correlates with substrated adhesivity of serotonergic neurons. <i>Glia</i> , 1990, 3, 169-179.	2.5	32
57	Primary mesenchyme cell patterning during the early stages following ingression. <i>Developmental Biology</i> , 2003, 254, 68-78.	0.9	32
58	Developmental single-cell transcriptomics in the <i>Lytechinus variegatus</i> sea urchin embryo. <i>Development (Cambridge)</i> , 2021, 148, .	1.2	31
59	The control of <i>foxN2/3</i> expression in sea urchin embryos and its function in the skeletogenic gene regulatory network. <i>Development (Cambridge)</i> , 2011, 138, 937-945.	1.2	29
60	Developmental gene regulatory networks in sea urchins and what we can learn from them. <i>F1000Research</i> , 2016, 5, 203.	0.8	27
61	Cell aggregation: Properties of cell surface factors from five species of sponge. <i>The Journal of Experimental Zoology</i> , 1974, 188, 89-101.	1.4	23
62	A new method for isolating primary mesenchyme cells of the sea urchin embryo. <i>Experimental Cell Research</i> , 1987, 168, 431-438.	1.2	23
63	Blocking Dishevelled signaling in the noncanonical Wnt pathway in sea urchins disrupts endoderm formation and spiculogenesis, but not secondary mesoderm formation. <i>Developmental Dynamics</i> , 2009, 238, 1649-1665.	0.8	23
64	Pattern formation during gastrulation in the sea urchin embryo. <i>Development (Cambridge)</i> , 1992, 116, 33-41.	1.2	23
65	Neurogenesis in the sea urchin embryo is initiated uniquely in three domains. <i>Development (Cambridge)</i> , 2018, 145, .	1.2	22
66	Contribution of hedgehog signaling to the establishment of left-right asymmetry in the sea urchin. <i>Developmental Biology</i> , 2016, 411, 314-324.	0.9	21
67	New insights from a high-resolution look at gastrulation in the sea urchin, <i>Lytechinus variegatus</i> . <i>Mechanisms of Development</i> , 2017, 148, 3-10.	1.7	21
68	A cortical granule-specific enzyme, B-1,3-glucanase, in sea urchin eggs. <i>Gamete Research</i> , 1987, 18, 339-348.	1.7	20
69	Specification to Biomineralization: Following a Single Cell Type as It Constructs a Skeleton. <i>Integrative and Comparative Biology</i> , 2014, 54, 723-733.	0.9	19
70	Involvement of histocompatibility antigens in embryonic cell recognition events. <i>Nature</i> , 1978, 274, 367-368.	18.7	15
71	Sea Urchin Morphogenesis. <i>Current Topics in Developmental Biology</i> , 2016, 117, 15-29.	1.0	15
72	Spatial and temporal patterns of gene expression during neurogenesis in the sea urchin <i>Lytechinus variegatus</i> . <i>EvoDevo</i> , 2019, 10, 2.	1.3	15

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73	Developmental origin of peripheral ciliary band neurons in the sea urchin embryo. <i>Developmental Biology</i> , 2020, 459, 72-78.	0.9	15
74	Calcium-Dependent and Calcium-Independent Adhesive Mechanisms Are Present During Initial Binding Events of Neural Retina Cells. <i>Journal of Cellular Biochemistry</i> , 1982, 18, 469-478.	1.2	14
75	Gastrulation in the sea urchin. <i>Current Topics in Developmental Biology</i> , 2020, 136, 195-218.	1.0	14
76	Quantitative switch in integrin expression accompanies differentiation of F9 cells treated with retinoic acid. <i>Developmental Dynamics</i> , 1994, 201, 344-353.	0.8	12
77	Methods for Embryo Dissociation and Analysis of Cell Adhesion. <i>Methods in Cell Biology</i> , 2004, 74, 311-329.	0.5	12
78	Left-Right Asymmetry in the Sea Urchin Embryo: BMP and the Asymmetrical Origins of the Adult. <i>PLoS Biology</i> , 2012, 10, e1001404.	2.6	12
79	Cortical granule exocytosis is triggered by different thresholds of calcium during fertilisation in sea urchin eggs. <i>Zygote</i> , 1998, 6, 55-63.	0.5	11
80	Blastomere Isolation and Transplantation. <i>Methods in Cell Biology</i> , 2004, 74, 243-271.	0.5	11
81	Embryonic cellular organization: Differential restriction of fates as revealed by cell aggregates and lineage markers. <i>The Journal of Experimental Zoology</i> , 1989, 251, 203-216.	1.4	9
82	Left-right asymmetry in the sea urchin. <i>Genesis</i> , 2014, 52, 481-487.	0.8	9
83	Lineage-specific expansions provide genomic complexity among sea urchin GTPases. <i>Developmental Biology</i> , 2006, 300, 165-179.	0.9	8
84	Delayed transition to new cell fates during cellular reprogramming. <i>Developmental Biology</i> , 2014, 391, 147-157.	0.9	8
85	Methodologies for Following EMT In Vivo at Single Cell Resolution. <i>Methods in Molecular Biology</i> , 2021, 2179, 303-314.	0.4	7
86	A Possible Role for Ligatin and the Phosphoglycoproteins It Binds in Calcium-Dependent Retinal Cell Adhesion. <i>Journal of Cellular Biochemistry</i> , 1982, 18, 461-468.	1.2	6
87	Lineages That Give Rise to Endoderm and Mesoderm in the Sea Urchin Embryo. , 1999, , 41-57.		5
88	Stage-specific expression of Î²-1, 3-glucanase in sea urchin embryos and hybrids. <i>The Journal of Experimental Zoology</i> , 1987, 244, 215-222.	1.4	4
89	Conditional specification of endomesoderm. <i>Cells and Development</i> , 2021, 167, 203716.	0.7	4
90	Chapter 9 Surface Antigens Involved in Interactions of Embryonic Sea Urchin Cells. <i>Current Topics in Developmental Biology</i> , 1979, 13 Pt 1, 199-214.	1.0	3

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91	Development of a larval nervous system in the sea urchin. <i>Current Topics in Developmental Biology</i> , 2022, 146, 25-48.	1.0	3
92	Specification of endoderm and mesoderm in the sea urchin. <i>Zygote</i> , 1999, 8, S41-S41.	0.5	2
93	Methods for transplantation of sea urchin blastomeres. <i>Methods in Cell Biology</i> , 2019, 150, 223-233.	0.5	2
94	Perspective on Epithelial-Mesenchymal Transitions in Embryos. <i>Methods in Molecular Biology</i> , 2021, 2179, 7-12.	0.4	1
95	Editorial—sea urchin special issue. <i>Genesis</i> , 2014, 52, 157-157.	0.8	0
96	Unlocking mechanisms of development through advances in tools. <i>Methods in Cell Biology</i> , 2019, 151, 37-41.	0.5	0
97	Reprint of: Conditional specification of endomesoderm. <i>Cells and Development</i> , 2021, , 203731.	0.7	0