David R Mcclay

List of Publications by Year
in descending order

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97 papers	8,743 citations	66315 42 h-index	45285 90 g-index
119 all docs	119 docs citations	119 times ranked	6380 citing authors

#	ARTICLE	IF	CITATIONS
1	Development of a larval nervous system in the sea urchin. Current Topics in Developmental Biology, 2022, 146, 25-48.	1.0	3
2	Developmental single-cell transcriptomics in the <i>Lytechinus variegatus</i> sea urchin embryo. Development (Cambridge), 2021, 148, .	1.2	31
3	Conditional specification of endomesoderm. Cells and Development, 2021, 167, 203716.	0.7	4
4	Methodologies for Following EMT In Vivo at Single Cell Resolution. Methods in Molecular Biology, 2021, 2179, 303-314.	0.4	7
5	Reprint of: Conditional specification of endomesoderm. Cells and Development, 2021, , 203731.	0.7	0
6	Perspective on Epithelial-Mesenchymal Transitions in Embryos. Methods in Molecular Biology, 2021, 2179, 7-12.	0.4	1
7	Gastrulation in the sea urchin. Current Topics in Developmental Biology, 2020, 136, 195-218.	1.0	14
8	Developmental origin of peripheral ciliary band neurons in the sea urchin embryo. Developmental Biology, 2020, 459, 72-78.	0.9	15
9	Chromosomal-Level Genome Assembly of the Sea Urchin Lytechinus variegatus Substantially Improves Functional Genomic Analyses. Genome Biology and Evolution, 2020, 12, 1080-1086.	1.1	41
10	Guidelines and definitions for research on epithelialâ€“mesenchymal transition. Nature Reviews Molecular Cell Biology, 2020, 21, 341-352.	16.1	1,195
11	Unlocking mechanisms of development through advances in tools. Methods in Cell Biology, 2019, 151, 37-41.	0.5	0
12	Spatial and temporal patterns of gene expression during neurogenesis in the sea urchin Lytechinus variegatus. EvoDevo, 2019, 10, 2.	1.3	15
13	Methods for transplantation of sea urchin blastomeres. Methods in Cell Biology, 2019, 150, 223-233.	0.5	2
14	Identification of neural transcription factors required for the differentiation of three neuronal subtypes in the sea urchin embryo. Developmental Biology, 2018, 435, 138-149.	0.9	38
15	Neurogenesis in the sea urchin embryo is initiated uniquely in three domains. Development (Cambridge), 2018, 145, .	1.2	22
16	New insights from a high-resolution look at gastrulation in the sea urchin, Lytechinus variegatus. Mechanisms of Development, 2017, 148, 3-10.	1.7	21
17	Sea Urchin Morphogenesis. Current Topics in Developmental Biology, 2016, 117, 15-29.	1.0	15
18	Contribution of hedgehog signaling to the establishment of leftâ€“right asymmetry in the sea urchin. Developmental Biology, 2016, 411, 314-324.	0.9	21

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19	Developmental gene regulatory networks in sea urchins and what we can learn from them. F1000Research, 2016, 5, 203.	0.8	27
20	Comparative Developmental Transcriptomics Reveals Rewiring of a Highly Conserved Gene Regulatory Network during a Major Life History Switch in the Sea Urchin Genus Heliocidaris. PLoS Biology, 2016, 14, e1002391.	2.6	78
21	Deployment of a retinal determination gene network drives directed cell migration in the sea urchin embryo. ELife, 2015, 4, .	2.8	40
22	Leftâ€"right asymmetry in the sea urchin. Genesis, 2014, 52, 481-487.	0.8	9
23	Editorialâ€sea urchin special issue. Genesis, 2014, 52, 157-157.	0.8	0
24	Delayed transition to new cell fates during cellular reprogramming. Developmental Biology, 2014, 391, 147-157.	0.9	8
25	Sub-circuits of a gene regulatory network control a developmental epithelial-mesenchymal transition. Development (Cambridge), 2014, 141, 1503-1513.	1.2	109
26	Branching out: Origins of the sea urchin larval skeleton in development and evolution. Genesis, 2014, 52, 173-185.	0.8	50
27	Specification to Biomineralization: Following a Single Cell Type as It Constructs a Skeleton. Integrative and Comparative Biology, 2014, 54, 723-733.	0.9	19
28	Hedgehog Signaling Requires Motile Cilia in the Sea Urchin. Molecular Biology and Evolution, 2014, 31, 18-22.	3.5	39
29	Short-range Wnt5 signaling initiates specification of sea urchin posterior ectoderm. Development (Cambridge), 2013, 140, 4881-4889.	1.2	64
30	Left-Right Asymmetry in the Sea Urchin Embryo: BMP and the Asymmetrical Origins of the Adult. PLoS Biology, 2012, 10, e1001404.	2.6	12
31	Frizzled1/2/7 signaling directs Î²-catenin nuclearisation and initiates endoderm specification in macromeres during sea urchin embryogenesis. Development (Cambridge), 2012, 139, 816-825.	1.2	42
32	Morphogenesis in sea urchin embryos: linking cellular events to gene regulatory network states. Wiley Interdisciplinary Reviews: Developmental Biology, 2012, 1, 231-252.	5.9	46
33	Evolutionary crossroads in developmental biology: sea urchins. Development (Cambridge), 2011, 138, 2639-2648.	1.2	141
34	The control of<i>foxN2/3</i>expression in sea urchin embryos and its function in the skeletogenic gene regulatory network. Development (Cambridge), 2011, 138, 937-945.	1.2	29
35	Wnt6 activates endoderm in the sea urchin gene regulatory network. Development (Cambridge), 2011, 138, 3297-3306.	1.2	60
36	Dynamics of Delta/Notch signaling on endomesoderm segregation in the sea urchin embryo. Development (Cambridge), 2010, 137, 83-91.	1.2	87

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37	Blocking Dishevelled signaling in the noncanonical Wnt pathway in sea urchins disrupts endoderm formation and spiculogenesis, but not secondary mesoderm formation. Developmental Dynamics, 2009, 238, 1649-1665.	0.8	23
38	Chordin is required for neural but not axial development in sea urchin embryos. Developmental Biology, 2009, 328, 221-233.	0.9	64
39	Hedgehog signaling patterns mesoderm in the sea urchin. Developmental Biology, 2009, 331, 26-37.	0.9	41
40	Evolution of the Wnt Pathways. Methods in Molecular Biology, 2008, 469, 3-18.	0.4	130
41	Vasa protein expression is restricted to the small micromeres of the sea urchin, but is inducible in other lineages early in development. Developmental Biology, 2008, 314, 276-286.	0.9	101
42	Twist is an essential regulator of the skeletogenic gene regulatory network in the sea urchin embryo. Developmental Biology, 2008, 319, 406-415.	0.9	45
43	FGF signals guide migration of mesenchymal cells, control skeletal morphogenesis and regulate gastrulation during sea urchin development. Development (Cambridge), 2008, 135, 353-365.	1.2	133
44	The Snail repressor is required for PMC ingression in the sea urchin embryo. Development (Cambridge), 2007, 134, 1061-1070.	1.2	85
45	Ingression of primary mesenchyme cells of the sea urchin embryo: A precisely timed epithelial mesenchymal transition. Birth Defects Research Part C: Embryo Today Reviews, 2007, 81, 241-252.	3.6	45
46	The Genome of the Sea Urchin Strongylocentrotus purpuratus. Science, 2006, 314, 941-952.	6.0	1,018
47	The canonical Wnt pathway in embryonic axis polarity. Seminars in Cell and Developmental Biology, 2006, 17, 168-174.	2.3	64
48	RhoA regulates initiation of invagination, but not convergent extension, during sea urchin gastrulation. Developmental Biology, 2006, 292, 213-225.	0.9	43
49	A genome-wide survey of the evolutionarily conserved Wnt pathways in the sea urchin Strongylocentrotus purpuratus. Developmental Biology, 2006, 300, 121-131.	0.9	76
50	Lineage-specific expansions provide genomic complexity among sea urchin GTPases. Developmental Biology, 2006, 300, 165-179.	0.9	8
51	Genomics and expression profiles of the Hedgehog and Notch signaling pathways in sea urchin development. Developmental Biology, 2006, 300, 153-164.	0.9	59
52	Repression of mesodermal fate by foxa, a key endoderm regulator of the sea urchin embryo. Development (Cambridge), 2006, 133, 4173-4181.	1.2	116
53	Frizzled5/8 is required in secondary mesenchyme cells to initiate archenteron invagination during sea urchin development. Development (Cambridge), 2006, 133, 547-557.	1.2	76
54	p38 MAPK is essential for secondary axis specification and patterning in sea urchin embryos. Development (Cambridge), 2006, 133, 21-32.	1.2	78

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55	LvGroucho and nuclear Î²-catenin functionally compete for Tcf binding to influence activation of the endomesoderm gene regulatory network in the sea urchin embryo. Developmental Biology, 2005, 279, 252-267.	0.9	40
56	Methods for Embryo Dissociation and Analysis of Cell Adhesion. Methods in Cell Biology, 2004, 74, 311-329.	0.5	12
57	Nuclear ?-catenin-dependent Wnt8 signaling in vegetal cells of the early sea urchin embryo regulates gastrulation and differentiation of endoderm and mesodermal cell lineages. Genesis, 2004, 39, 194-205.	0.8	117
58	Blastomere Isolation and Transplantation. Methods in Cell Biology, 2004, 74, 243-271.	0.5	11
59	SpHnf6, a transcription factor that executes multiple functions in sea urchin embryogenesis. Developmental Biology, 2004, 273, 226-243.	0.9	66
60	Primary mesenchyme cell patterning during the early stages following ingression. Developmental Biology, 2003, 254, 68-78.	0.9	32
61	Activation of pmar1 controls specification of micromeres in the sea urchin embryo. Developmental Biology, 2003, 258, 32-43.	0.9	128
62	Spdeadringer, a sea urchin embryo gene required separately in skeletogenic and oral ectoderm gene regulatory networks. Developmental Biology, 2003, 261, 55-81.	0.9	67
63	Regulatory gene networks and the properties of the developmental process. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 1475-1480.	3.3	211
64	LvTbx2/3: a T-box family transcription factor involved in formation of the oral/aboral axis of the sea urchin embryo. Development (Cambridge), 2003, 130, 1989-1999.	1.2	56
65	A Genomic Regulatory Network for Development. Science, 2002, 295, 1669-1678.	6.0	1,399
66	A Provisional Regulatory Gene Network for Specification of Endomesoderm in the Sea Urchin Embryo. Developmental Biology, 2002, 246, 162-190.	0.9	319
67	The Role of Brachyury (T) during Gastrulation Movements in the Sea Urchin Lytechinus variegatus. Developmental Biology, 2001, 239, 132-147.	0.9	116
68	LvNotch signaling plays a dual role in regulating the position of the ectoderm-endoderm boundary in the sea urchin embryo. Development (Cambridge), 2001, 128, 2221-2232.	1.2	78
69	Specification of endoderm and mesoderm in the sea urchin. Zygote, 1999, 8, S41-S41.	0.5	2
70	The Role of Thin Filopodia in Motility and Morphogenesis. Experimental Cell Research, 1999, 253, 296-301.	1.2	60
71	Î±SU2, an Epithelial Integrin That Binds Laminin in the Sea Urchin Embryo. Developmental Biology, 1999, 207, 1-13.	0.9	33
72	Lineages That Give Rise to Endoderm and Mesoderm in the Sea Urchin Embryo. , 1999, , 41-57.		5

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73	A Molecular Analysis of Hyalinâ€"A Substrate for Cell Adhesion in the Hyaline Layer of the Sea Urchin Embryo. Developmental Biology, 1998, 193, 115-126.	0.9	75
74	Cortical granule exocytosis is triggered by different thresholds of calcium during fertilisation in sea urchin eggs. Zygote, 1998, 6, 55-63.	0.5	11
75	Changes in the Pattern of Adherens Junction-Associated Î²-Catenin Accompany Morphogenesis in the Sea Urchin Embryo. Developmental Biology, 1997, 192, 310-322.	0.9	80
76	Characterization of the Role of Cadherin in Regulating Cell Adhesion during Sea Urchin Development. Developmental Biology, 1997, 192, 323-339.	0.9	148
77	Quantitative switch in integrin expression accompanies differentiation of F9 cells treated with retinoic acid. Developmental Dynamics, 1994, 201, 344-353.	0.8	12
78	Skeletal Pattern Is Specified Autonomously by the Primary Mesenchyme Cells in Sea Urchin Embryos. Developmental Biology, 1994, 162, 329-338.	0.9	58
79	Pattern formation during gastrulation in the sea urchin embryo. Development (Cambridge), 1992, 116, 33-41.	1.2	23
80	Neuronal-glial interactions: Complexity of neurite outgrowth correlates with substrated adhesivity of serotonergic neurons. Glia, 1990, 3, 169-179.	2.5	32
81	Target recognition by the archenteron during sea urchin gastrulation. Developmental Biology, 1990, 142, 86-102.	0.9	78
82	Embryonic cellular organization: Differential restriction of fates as revealed by cell aggregates and lineage markers. The Journal of Experimental Zoology, 1989, 251, 203-216.	1.4	9
83	MOLECULAR HETEROCHRONIES AND HETEROTOPIES IN EARLY ECHINOID DEVELOPMENT. Evolution; International Journal of Organic Evolution, 1989, 43, 803-813.	1.1	55
84	Cell lineage conversion in the sea urchin embryo. Developmental Biology, 1988, 125, 396-409.	0.9	192
85	A new method for isolating primary mesenchyme cells of the sea urchin embryo. Experimental Cell Research, 1987, 168, 431-438.	1.2	23
86	Stage-specific expression of Î²-1, 3-glucanase in sea urchin embryos and hybrids. The Journal of Experimental Zoology, 1987, 244, 215-222.	1.4	4
87	A cortical granule-specific enzyme, B-1,3-glucanase, in sea urchin eggs. Gamete Research, 1987, 18, 339-348.	1.7	20
88	The regulation of primary mesenchyme cell migration in the sea urchin embryo: Transplantations of cells and latex beads. Developmental Biology, 1986, 117, 380-391.	0.9	73
89	Chapter 17 Embryo Dissociation, Cell Isolation, and Cell Reassociation. Methods in Cell Biology, 1986, 27, 309-323.	0.5	41
90	Three cell recognition changes accompany the ingression of sea urchin primary mesenchyme cells. Developmental Biology, 1985, 107, 66-74.	0.9	151

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91	Sequential expression of germ-layer specific molecules in the sea urchin embryo. Developmental Biology, 1985, 111, 451-463.	0.9	136
92	Ontogeny of the basal lamina in the sea urchin embryo. Developmental Biology, 1984, 103, 235-245.	0.9	179
93	A Possible Role for Ligatin and the Phosphoglycoproteins It Binds in Calcium-Dependent Retinal Cell Adhesion. Journal of Cellular Biochemistry, 1982, 18, 461-468.	1.2	6
94	Calcium-Dependent and Calcium-Independent Adhesive Mechanisms Are Present During Initial Binding Events of Neural Retina Cells. Journal of Cellular Biochemistry, 1982, 18, 469-478.	1.2	14
95	Chapter 9 Surface Antigens Involved in Interactions of Embryonic Sea Urchin Cells. Current Topics in Developmental Biology, 1979, 13 Pt 1, 199-214.	1.0	3
96	Involvement of histocompatibility antigens in embryonic cell recognition events. Nature, 1978, 274, 367-368.	13.7	15
97	Cell aggregation: Properties of cell surface factors from five species of sponge. The Journal of Experimental Zoology, 1974, 188, 89-101.	1.4	23