Andrew C Oates

List of Publications by Year in descending order

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83 papers 6,522 citations

71102 41 h-index 71685 **76** g-index

93 all docs 93
docs citations

93 times ranked 6089 citing authors

#	Article	IF	CITATIONS
1	TheclocheandspadetailGenes Differentially Affect Hematopoiesis and Vasculogenesis. Developmental Biology, 1998, 197, 248-269.	2.0	467
2	Patterning embryos with oscillations: structure, function and dynamics of the vertebrate segmentation clock. Development (Cambridge), 2012, 139, 625-639.	2.5	326
3	Genomic regulatory blocks encompass multiple neighboring genes and maintain conserved synteny in vertebrates. Genome Research, 2007, 17, 545-555.	5.5	312
4	Boundary formation and maintenance in tissue development. Nature Reviews Genetics, 2011, 12, 43-55.	16.3	301
5	Force transmission during adhesion-independent migration. Nature Cell Biology, 2015, 17, 524-529.	10.3	279
6	<i>Hairy/E(spl)-related</i> (<i>Her</i>) genes are central components of the segmentation oscillator and display redundancy with the Delta/Notch signaling pathway in the formation of anterior segmental boundaries in the zebrafish. Development (Cambridge), 2002, 129, 2929-2946.	2.5	255
7	Positional cloning of the zebrafish sauternes gene: a model for congenital sideroblastic anaemia. Nature Genetics, 1998, 20, 244-250.	21.4	239
8	Synchrony Dynamics During Initiation, Failure, and Rescue of the Segmentation Clock. Science, 2007, 317, 1911-1915.	12.6	233
9	Zebrafish SPI-1 (PU.1) Marks a Site of Myeloid Development Independent of Primitive Erythropoiesis: Implications for Axial Patterning. Developmental Biology, 2002, 246, 274-295.	2.0	193
10	Evolutionary plasticity of segmentation clock networks. Development (Cambridge), 2011, 138, 2783-2792.	2.5	166
11	Characterization of embryonic globin genes of the zebrafish. Developmental Biology, 2003, 255, 48-61.	2.0	150
12	Quantitative approaches in developmental biology. Nature Reviews Genetics, 2009, 10, 517-530.	16.3	149
13	Intercellular Coupling Regulates the Period of the Segmentation Clock. Current Biology, 2010, 20, 1244-1253.	3.9	149
14	Coilin-dependent snRNP assembly is essential for zebrafish embryogenesis. Nature Structural and Molecular Biology, 2010, 17, 403-409.	8.2	145
15	Too Much Interference: Injection of Double-Stranded RNA Has Nonspecific Effects in the Zebrafish Embryo. Developmental Biology, 2000, 224, 20-28.	2.0	137
16	Delayed coupling theory of vertebrate segmentation. HFSP Journal, 2009, 3, 55-66.	2.5	134
17	gp130-mediated Signal Transduction in Embryonic Stem Cells Involves Activation of Jak and Ras/Mitogen-activated Protein Kinase Pathways. Journal of Biological Chemistry, 1996, 271, 30136-30143.	3.4	133
18	Dynamics of zebrafish somitogenesis. Developmental Dynamics, 2008, 237, 545-553.	1.8	131

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19	A Doppler effect in embryonic pattern formation. Science, 2014, 345, 222-225.	12.6	121
20	Topology and Dynamics of the Zebrafish Segmentation Clock Core Circuit. PLoS Biology, 2012, 10, e1001364.	5.6	108
21	Zebrafishstat3 is expressed in restricted tissues during embryogenesis andstat1 rescues cytokine signaling in aSTAT1-deficient human cell line. Developmental Dynamics, 1999, 215, 352-370.	1.8	105
22	Morphologic and functional characterization of granulocytes and macrophages in embryonic and adult zebrafish. Blood, 2001, 98, 3087-3096.	1.4	103
23	The zebrafish klf gene family. Blood, 2001, 98, 1792-1801.	1.4	98
24	Persistence, period and precision of autonomous cellular oscillators from the zebrafish segmentation clock. ELife, 2016, 5, .	6.0	98
25	Segment Number and Axial Identity in a Segmentation Clock Period Mutant. Current Biology, 2010, 20, 1254-1258.	3.9	94
26	Distinct Subdomains of the EphA3 Receptor Mediate Ligand Binding and Receptor Dimerization. Journal of Biological Chemistry, 1998, 273, 20228-20237.	3.4	90
27	Hairy/E(spl)-related (Her) genes are central components of the segmentation oscillator and display redundancy with the Delta/Notch signaling pathway in the formation of anterior segmental boundaries in the zebrafish. Development (Cambridge), 2002, 129, 2929-46.	2.5	84
28	Computational Approaches to Developmental Patterning. Science, 2012, 336, 187-191.	12.6	83
29	tbx20 , a new vertebrate T-box gene expressed in the cranial motor neurons and developing cardiovascular structures in zebrafish. Mechanisms of Development, 2000, 95, 253-258.	1.7	80
30	Simple and Efficient Transgenesis with Meganuclease Constructs in Zebrafish. Methods in Molecular Biology, 2009, 546, 117-130.	0.9	66
31	Segmentation of the zebrafish axial skeleton relies on notochord sheath cells and not on the segmentation clock. ELife, 2018, 7, .	6.0	61
32	Additional hox clusters in the zebrafish: divergent expression patterns belie equivalent activities of duplicate hoxB5 genes. Evolution & Development, 2001, 3, 127-144.	2.0	60
33	An early developmental role for Eph-ephrin interaction during vertebrate gastrulation. Mechanisms of Development, 1999, 83, 77-94.	1.7	59
34	Wnt-regulated dynamics of positional information in zebrafish somitogenesis. Development (Cambridge), 2014, 141, 1381-1391.	2.5	59
35	Molecular cloning, genetic mapping, and expression analysis of four zebrafish c/ebp genes. Gene, 2001, 281, 43-51.	2.2	56
36	Zebrafish gcm2 is required for gill filament budding from pharyngeal ectoderm. Developmental Biology, 2004, 276, 508-522.	2.0	55

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37	Biomolecular Interaction Analysis of IFNÎ ³ -Induced Signaling Events in Whole-Cell Lysates: Prevalence of Latent STAT1 in High-Molecular Weight Complexes. Growth Factors, 1998, 16, 39-51.	1.7	52
38	Collective Modes of Coupled Phase Oscillators with Delayed Coupling. Physical Review Letters, 2012, 108, 204101.	7.8	52
39	Faster embryonic segmentation through elevated Delta-Notch signalling. Nature Communications, 2016, 7, 11861.	12.8	51
40	Delta-Notch signalling in segmentation. Arthropod Structure and Development, 2017, 46, 429-447.	1.4	50
41	Cooperative function of deltaC and her7 in anterior segment formation. Developmental Biology, 2005, 280, 133-149.	2.0	49
42	Completing the set of h/E(spl) cyclic genes in zebrafish: her12 and her15 reveal novel modes of expression and contribute to the segmentation clock. Developmental Biology, 2007, 304, 615-632.	2.0	47
43	Tbx6, Mesp-b and Ripply1 regulate the onset of skeletal myogenesis in zebrafish. Development (Cambridge), 2015, 142, 1159-68.	2.5	47
44	What are you synching about? Emerging complexity of Notch signaling in the segmentation clock. Developmental Biology, 2020, 460, 40-54.	2.0	46
45	Coordination of symmetric cyclic gene expression during somitogenesis by Suppressor of Hairless involves regulation of retinoic acid catabolism. Developmental Biology, 2007, 301, 388-403.	2.0	43
46	The segmentation clock: inherited trait or universal design principle?. Current Opinion in Genetics and Development, 2012, 22, 600-606.	3.3	43
47	A novel myeloid-restricted zebrafish CCAAT/enhancer-binding protein with a potent transcriptional activation domain. Blood, 2001, 97, 2611-2617.	1.4	41
48	Dynamics of mobile coupled phase oscillators. Physical Review E, 2013, 87, .	2.1	41
49	Interplay between intercellular signaling and cell movement in development. Seminars in Cell and Developmental Biology, 2014, 35, 66-72.	5.0	29
50	Continuum theory of gene expression waves during vertebrate segmentation. New Journal of Physics, 2015, 17, 093042.	2.9	29
51	Small molecule screen in embryonic zebrafish using modular variations to target segmentation. Nature Communications, 2017, 8, 1901.	12.8	29
52	Timing by rhythms: Daily clocks and developmental rulers. Development Growth and Differentiation, 2016, 58, 43-58.	1.5	27
53	Genomic Structure and Expression of the Mouse Growth Factor Receptor Related to Tyrosine Kinases (Ryk). Journal of Biological Chemistry, 1999, 274, 7379-7390.	3.4	24
54	Generation of segment polarity in the paraxial mesoderm of the zebrafish through a T-box-dependent inductive event. Developmental Biology, 2005, 283, 204-214.	2.0	23

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55	Optimal cellular mobility for synchronization arising from the gradual recovery of intercellular interactions. Physical Biology, 2012, 9, 036006.	1.8	23
56	Patterning and mechanics of somite boundaries in zebrafish embryos. Seminars in Cell and Developmental Biology, 2020, 107, 170-178.	5.0	22
57	Multiple Embryo Time-Lapse Imaging of Zebrafish Development. Methods in Molecular Biology, 2009, 546, 243-254.	0.9	22
58	Embryonic expression and activity of doughnut, a second RYK homolog in Drosophila. Mechanisms of Development, 1998, 78, 165-169.	1.7	21
59	A Crucial Interaction between Embryonic Red Blood Cell Progenitors and Paraxial Mesoderm Revealed in spadetail Embryos. Developmental Cell, 2004, 7, 251-262.	7.0	21
60	Waiting on the Fringe: cell autonomy and signaling delays in segmentation clocks. Current Opinion in Genetics and Development, 2020, 63, 61-70.	3.3	20
61	Object Segmentation and Ground Truth in 3D Embryonic Imaging. PLoS ONE, 2016, 11, e0150853.	2.5	20
62	Left–right symmetry of zebrafish embryos requires somite surface tension. Nature, 2022, 605, 516-521.	27.8	19
63	Chevron formation of the zebrafish muscle segments. Journal of Experimental Biology, 2014, 217, 3870-82.	1.7	18
64	Live transgenic reporters of the vertebrate embryo's Segmentation Clock. Current Opinion in Genetics and Development, 2011, 21, 600-605.	3.3	16
65	Sequential pattern formation governed by signaling gradients. Physical Biology, 2016, 13, 05LT03.	1.8	15
66	Towards a physical understanding of developmental patterning. Nature Reviews Genetics, 2021, 22, 518-531.	16.3	15
67	Control of endogenous gene expression timing by introns. Genome Biology, 2011, 12, 107.	9.6	13
68	Mechanochemical coupling and developmental pattern formation. Current Opinion in Systems Biology, 2017, 5, 104-111.	2.6	12
69	A framework for quantification and physical modeling of cell mixing applied to oscillator synchronization in vertebrate somitogenesis. Biology Open, 2017, 6, 1235-1244.	1.2	11
70	Detection of mRNA by Whole Mount in situ Hybridization and DNA Extraction for Genotyping of Zebrafish Embryos. Bio-protocol, 2019, 9, e3193.	0.4	11
71	From local resynchronization to global pattern recovery in the zebrafish segmentation clock. ELife, 2021, 10, .	6.0	10
72	Theory of time delayed genetic oscillations with external noisy regulation. New Journal of Physics, 2021, 23, 033030.	2.9	10

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73	Sampling the Genomic Pool of Protein Tyrosine Kinase Genes Using the Polymerase Chain Reaction with Genomic DNA. Biochemical and Biophysical Research Communications, 1998, 249, 660-667.	2.1	7
74	Generation of Dispersed Presomitic Mesoderm Cell Cultures for Imaging of the Zebrafish Segmentation Clock in Single Cells. Journal of Visualized Experiments, 2014, , .	0.3	6
75	Embryonic lateral inhibition as optical modes: An analytical framework for mesoscopic pattern formation. Physical Review E, 2019, 99, 042417.	2.1	6
76	Enhanced SnapShot: The Segmentation Clock. Cell, 2011, 145, 800-800.e1.	28.9	5
77	Breathe in and Straighten Your Back: Hypoxia, Notch, and Scoliosis. Cell, 2012, 149, 255-256.	28.9	5
78	Nonlinearity arising from noncooperative transcription factor binding enhances negative feedback and promotes genetic oscillations. Papers in Physics, $2014, 6, .$	0.2	5
79	Instruments of change for academic tool development. Nature Physics, 2021, 17, 421-424.	16.7	4
80	15-P018 A phase-ordered microarray screen for cyclic genes in zebrafish reveals her genes as the conserved core of the somitogenesis clock. Mechanisms of Development, 2009, 126, S252-S253.	1.7	2
81	Opening a can of centipedes: new insights into mechanisms of body segmentation. BMC Biology, 2013, 11, 116.	3.8	2
82	The Sweetness of Embryonic Elongation and Differentiation. Developmental Cell, 2017, 40, 323-324.	7.0	2
83	Analysis and visualization of cell movement in the developing zebrafish brain. Developmental Dynamics, 2006, 235, spc1-spc1.	1.8	0