Andrew C Oates

List of Publications by Year
in descending order

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	Leftâ€“right symmetry of zebrafish embryos requires somite surface tension. Nature, 2022, 605, 516-521.	27.8	19
2	From local resynchronization to global pattern recovery in the zebrafish segmentation clock. ELife, 2021, 10, .	6.0	10
3	Theory of time delayed genetic oscillations with external noisy regulation. New Journal of Physics, 2021, 23, 033030.	2.9	10
4	Instruments of change for academic tool development. Nature Physics, 2021, 17, 421-424.	16.7	4
5	Towards a physical understanding of developmental patterning. Nature Reviews Genetics, 2021, 22, 518-531.	16.3	15
6	What are you synching about? Emerging complexity of Notch signaling in the segmentation clock. Developmental Biology, 2020, 460, 40-54.	2.0	46
7	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
8	Patterning and mechanics of somite boundaries in zebrafish embryos. Seminars in Cell and Developmental Biology, 2020, 107, 170-178.	5.0	22
9	Embryonic lateral inhibition as optical modes: An analytical framework for mesoscopic pattern formation. Physical Review E, 2019, 99, 042417.	2.1	6
10	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
11	Segmentation of the zebrafish axial skeleton relies on notochord sheath cells and not on the segmentation clock. ELife, 2018, 7, .	6.0	61
12	Delta-Notch signalling in segmentation. Arthropod Structure and Development, 2017, 46, 429-447.	1.4	50
13	The Sweetness of Embryonic Elongation and Differentiation. Developmental Cell, 2017, 40, 323-324.	7.0	2
14	Mechanochemical coupling and developmental pattern formation. Current Opinion in Systems Biology, 2017, 5, 104-111.	2.6	12
15	Small molecule screen in embryonic zebrafish using modular variations to target segmentation. Nature Communications, 2017, 8, 1901.	12.8	29
16	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
17	Faster embryonic segmentation through elevated Delta-Notch signalling. Nature Communications, 2016, 7, 11861.	12.8	51
18	Sequential pattern formation governed by signaling gradients. Physical Biology, 2016, 13, 05LT03.	1.8	15

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19	Timing by rhythms: Daily clocks and developmental rulers. Development Growth and Differentiation, 2016, 58, 43-58.	1.5	27
20	Object Segmentation and Ground Truth in 3D Embryonic Imaging. PLoS ONE, 2016, 11, e0150853.	2.5	20
21	Persistence, period and precision of autonomous cellular oscillators from the zebrafish segmentation clock. ELife, 2016, 5, .	6.0	98
22	Tbx6, Mesp-b and Ripply1 regulate the onset of skeletal myogenesis in zebrafish. Development (Cambridge), 2015, 142, 1159-68.	2.5	47
23	Force transmission during adhesion-independent migration. Nature Cell Biology, 2015, 17, 524-529.	10.3	279
24	Continuum theory of gene expression waves during vertebrate segmentation. New Journal of Physics, 2015, 17, 093042.	2.9	29
25	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
26	Wnt-regulated dynamics of positional information in zebrafish somitogenesis. Development (Cambridge), 2014, 141, 1381-1391.	2.5	59
27	Chevron formation of the zebrafish muscle segments. Journal of Experimental Biology, 2014, 217, 3870-82.	1.7	18
28	A Doppler effect in embryonic pattern formation. Science, 2014, 345, 222-225.	12.6	121
29	Interplay between intercellular signaling and cell movement in development. Seminars in Cell and Developmental Biology, 2014, 35, 66-72.	5.0	29
30	Nonlinearity arising from noncooperative transcription factor binding enhances negative feedback and promotes genetic oscillations. Papers in Physics, 2014, 6, .	0.2	5
31	Opening a can of centipedes: new insights into mechanisms of body segmentation. BMC Biology, 2013, 11, 116.	3.8	2
32	Dynamics of mobile coupled phase oscillators. Physical Review E, 2013, 87, .	2.1	41
33	Topology and Dynamics of the Zebrafish Segmentation Clock Core Circuit. PLoS Biology, 2012, 10, e1001364.	5.6	108
34	Optimal cellular mobility for synchronization arising from the gradual recovery of intercellular interactions. Physical Biology, 2012, 9, 036006.	1.8	23
35	Collective Modes of Coupled Phase Oscillators with Delayed Coupling. Physical Review Letters, 2012, 108, 204101.	7.8	52
36	Breathe in and Straighten Your Back: Hypoxia, Notch, and Scoliosis. Cell, 2012, 149, 255-256.	28.9	5

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37	The segmentation clock: inherited trait or universal design principle?. Current Opinion in Genetics and Development, 2012, 22, 600-606.	3.3	43
38	Computational Approaches to Developmental Patterning. Science, 2012, 336, 187-191.	12.6	83
39	Patterning embryos with oscillations: structure, function and dynamics of the vertebrate segmentation clock. Development (Cambridge), 2012, 139, 625-639.	2.5	326
40	Control of endogenous gene expression timing by introns. Genome Biology, 2011, 12, 107.	9.6	13
41	Evolutionary plasticity of segmentation clock networks. Development (Cambridge), 2011, 138, 2783-2792.	2.5	166
42	Enhanced SnapShot: The Segmentation Clock. Cell, 2011, 145, 800-800.e1.	28.9	5
43	Live transgenic reporters of the vertebrate embryo's Segmentation Clock. Current Opinion in Genetics and Development, 2011, 21, 600-605.	3.3	16
44	Boundary formation and maintenance in tissue development. Nature Reviews Genetics, 2011, 12, 43-55.	16.3	301
45	Segment Number and Axial Identity in a Segmentation Clock Period Mutant. Current Biology, 2010, 20, 1254-1258.	3.9	94
46	Intercellular Coupling Regulates the Period of the Segmentation Clock. Current Biology, 2010, 20, 1244-1253.	3.9	149
47	Coilin-dependent snRNP assembly is essential for zebrafish embryogenesis. Nature Structural and Molecular Biology, 2010, 17, 403-409.	8.2	145
48	Delayed coupling theory of vertebrate segmentation. HFSP Journal, 2009, 3, 55-66.	2.5	134
49	Quantitative approaches in developmental biology. Nature Reviews Genetics, 2009, 10, 517-530.	16.3	149
50	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
51	Simple and Efficient Transgenesis with Meganuclease Constructs in Zebrafish. Methods in Molecular Biology, 2009, 546, 117-130.	0.9	66
52	Multiple Embryo Time-Lapse Imaging of Zebrafish Development. Methods in Molecular Biology, 2009, 546, 243-254.	0.9	22
53	Dynamics of zebrafish somitogenesis. Developmental Dynamics, 2008, 237, 545-553.	1.8	131
54	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

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55	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
56	Genomic regulatory blocks encompass multiple neighboring genes and maintain conserved synteny in vertebrates. Genome Research, 2007, 17, 545-555.	5.5	312
57	Synchrony Dynamics During Initiation, Failure, and Rescue of the Segmentation Clock. Science, 2007, 317, 1911-1915.	12.6	233
58	Analysis and visualization of cell movement in the developing zebrafish brain. Developmental Dynamics, 2006, 235, spc1-spc1.	1.8	0
59	Cooperative function of deltaC and her7 in anterior segment formation. Developmental Biology, 2005, 280, 133-149.	2.0	49
60	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
61	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
62	Zebrafish gcm2 is required for gill filament budding from pharyngeal ectoderm. Developmental Biology, 2004, 276, 508-522.	2.0	55
63	Characterization of embryonic globin genes of the zebrafish. Developmental Biology, 2003, 255, 48-61.	2.0	150
64	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
65	<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
66	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
67	Molecular cloning, genetic mapping, and expression analysis of four zebrafish c/ebp genes. Gene, 2001, 281, 43-51.	2.2	56
68	A novel myeloid-restricted zebrafish CCAAT/enhancer-binding protein with a potent transcriptional activation domain. Blood, 2001, 97, 2611-2617.	1.4	41
69	The zebrafish klf gene family. Blood, 2001, 98, 1792-1801.	1.4	98
70	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
71	Morphologic and functional characterization of granulocytes and macrophages in embryonic and adult zebrafish. Blood, 2001, 98, 3087-3096.	1.4	103
72	Too Much Interference: Injection of Double-Stranded RNA Has Nonspecific Effects in the Zebrafish Embryo. Developmental Biology, 2000, 224, 20-28.	2.0	137

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73	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
74	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
75	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
76	An early developmental role for Eph-ephrin interaction during vertebrate gastrulation. Mechanisms of Development, 1999, 83, 77-94.	1.7	59
77	Positional cloning of the zebrafish sauternes gene: a model for congenital sideroblastic anaemia. Nature Genetics, 1998, 20, 244-250.	21.4	239
78	Embryonic expression and activity of doughnut, a second RYK homolog in Drosophila. Mechanisms of Development, 1998, 78, 165-169.	1.7	21
79	Biomolecular Interaction Analysis of IFNÎ³-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
80	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
81	TheclocheandspadetailGenes Differentially Affect Hematopoiesis and Vasculogenesis. Developmental Biology, 1998, 197, 248-269.	2.0	467
82	Distinct Subdomains of the EphA3 Receptor Mediate Ligand Binding and Receptor Dimerization. Journal of Biological Chemistry, 1998, 273, 20228-20237.	3.4	90
83	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