Alfonso Martinez Arias

List of Publications by Year
in descending order

90 papers	7,552 citations	61984 43 h-index	62596 80 g-index
166 all docs	166 docs citations	166 times ranked	7714 citing authors

#	Article	IF	Citations
1	Cell-state transitions and collective cell movement generate an endoderm-like region in gastruloids. ELife, 2022, 11, .	6.0	32
2	Gastruloids: Pluripotent stem cell models of mammalian gastrulation and embryo engineering. Developmental Biology, 2022, 488, 35-46.	2.0	20
3	Biomedical and societal impacts of inÂvitro embryo models of mammalian development. Stem Cell Reports, 2021, 16, 1021-1030.	4.8	13
4	Human gastrulation: The embryo and its models. Developmental Biology, 2021, 474, 100-108.	2.0	33
5	The cell in the age of the genomic revolution: Cell Regulatory Networks. Cells and Development, 2021, 168, 203720.	1.5	7
6	Bioengineered embryoids mimic post-implantation development in vitro. Nature Communications, 2021, 12, 5140.	12.8	35
7	Establishment of the vertebrate body plan: Rethinking gastrulation through stem cell models of early embryogenesis. Developmental Cell, 2021, 56, 2405-2418.	7.0	21
8	In vitro teratogenicity testing using a 3D, embryo-like gastruloid system. Reproductive Toxicology, 2021, 105, 72-90.	2.9	35
9	The primitive streak and cellular principles of building an amniote body through gastrulation. Science, 2021, 374, abg1727.	12.6	20
10	Experimental embryology of gastrulation: pluripotent stem cells as a new model system. Current Opinion in Genetics and Development, 2020, 64, 78-83.	3.3	23
11	Pluripotent stem cell models of early mammalian development. Current Opinion in Cell Biology, 2020, 66, 89-96.	5.4	44
12	Axis Specification in Zebrafish Is Robust to Cell Mixing and Reveals a Regulation of Pattern Formation by Morphogenesis. Current Biology, 2020, 30, 2984-2994.e3.	3.9	40
13	Single-cell and spatial transcriptomics reveal somitogenesis in gastruloids. Nature, 2020, 582, 405-409.	27.8	274
14	An in vitro model of early anteroposterior organization during human development. Nature, 2020, 582, 410-415.	27.8	310
15	Reverse-engineering growth and form in Heidelberg. Development (Cambridge), 2019, 146, .	2.5	5
16	NeuroMesodermal Progenitors (NMPs): a comparative study between Pluripotent Stem Cells and Embryo derived populations. Development (Cambridge), 2019, 146, .	2.5	29
17	An Epiblast Stem Cell derived multipotent progenitor population for axial extension. Development (Cambridge), 2019, 146, .	2.5	27
18	On the nature and function of organizers. Development (Cambridge), 2018, 145, .	2.5	73

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19	Debate ethics of embryo models from stem cells. Nature, 2018, 564, 183-185.	27.8	72
20	Multi-axial self-organization properties of mouse embryonic stem cells into gastruloids. Nature, 2018, 562, 272-276.	27.8	347
21	A Sprouty4 reporter to monitor FGF/ERK signaling activity in ESCs and mice. Developmental Biology, 2018, 441, 104-126.	2.0	45
22	Mammalian body plan engineering: Lessons and challenges. Current Opinion in Systems Biology, 2018, 11, 50-56.	2.6	2
23	Evo-engineering and the cellular and molecular origins of the vertebrate spinal cord. Developmental Biology, 2017, 432, 3-13.	2.0	66
24	The hope and the hype of organoid research. Development (Cambridge), 2017, 144, 938-941.	2.5	303
25	Anteroposterior polarity and elongation in the absence of extraembryonic tissues and spatially localised signalling in <i>Gastruloids</i>, mammalian embryonic organoids. Development (Cambridge), 2017, 144, 3894-3906.	2.5	166
26	Single-Cell Approaches: Pandoraâ€™s Box of Developmental Mechanisms. Developmental Cell, 2016, 38, 574-578.	7.0	10
27	Organoids and the genetically encoded selfâ€assembly of embryonic stem cells. BioEssays, 2016, 38, 181-191.	2.5	99
28	Transition states and cell fate decisions in epigenetic landscapes. Nature Reviews Genetics, 2016, 17, 693-703.	16.3	342
29	A draft map of the mouse pluripotent stem cell spatial proteome. Nature Communications, 2016, 7, 8992.	12.8	197
30	Generation of Aggregates of Mouse Embryonic Stem Cells that Show Symmetry Breaking, Polarization and Emergent Collective Behaviour In Vitro. Journal of Visualized Experiments, 2015, , .	0.3	51
31	Cell dynamics and gene expression control in tissue homeostasis and development. Molecular Systems Biology, 2015, 11, 792.	7.2	75
32	FGF/MAPK signaling sets the switching threshold of a bistable circuit controlling cell fate decisions in ES cells. Development (Cambridge), 2015, 142, 4205-16.	2.5	100
33	Inhibition of Î²-cateninâ€“TCF1 interaction delays differentiation of mouse embryonic stem cells. Journal of Cell Biology, 2015, 211, 39-51.	5.2	32
34	Wnt/ÃŸ-catenin signalling and the dynamics of fate decisions in early mouse embryos and embryonic stem (ES) cells. Seminars in Cell and Developmental Biology, 2015, 47-48, 101-109.	5.0	32
35	Contractile and Mechanical Properties of Epithelia with Perturbed Actomyosin Dynamics. PLoS ONE, 2014, 9, e95695.	2.5	38
36	Brachyury cooperates with Wnt/Î²-catenin signalling to elicit primitive-streak-like behaviour in differentiating mouse embryonic stem cells. BMC Biology, 2014, 12, 63.	3.8	74

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37	An interplay between extracellular signalling and the dynamics of the exit from pluripotency drives cell fate decisions in mouse ES cells. Biology Open, 2014, 3, 614-626.	1.2	55
38	Symmetry breaking, germ layer specification and axial organisation in aggregates of mouse embryonic stem cells. Development (Cambridge), 2014, 141, 4231-4242.	2.5	346
39	Wnt/Î²-catenin and FGF signalling direct the specification and maintenance of a neuromesodermal axial progenitor in ensembles of mouse embryonic stem cells. Development (Cambridge), 2014, 141, 4243-4253.	2.5	141
40	A molecular basis for developmental plasticity in early mammalian embryos. Development (Cambridge), 2013, 140, 3499-3510.	2.5	48
41	A competitive protein interaction network buffers Oct4â€mediated differentiation to promote pluripotency in embryonic stem cells. Molecular Systems Biology, 2013, 9, 694.	7.2	41
42	Single cell lineage analysis of mouse embryonic stem cells at the exit from pluripotency. Biology Open, 2013, 2, 1049-1056.	1.2	29
43	A membrane-associated Î²-catenin/Oct4 complex correlates with ground-state pluripotency in mouse embryonic stem cells. Development (Cambridge), 2013, 140, 1171-1183.	2.5	113
44	Theme and variations on biology and civilisation. Development (Cambridge), 2012, 139, 4493-4494.	2.5	0
45	Towards a statistical mechanics of cell fate decisions. Current Opinion in Genetics and Development, 2012, 22, 619-626.	3.3	69
46	Interactions between the amnioserosa and the epidermis revealed by the function of the <i>u-shaped</i> gene. Biology Open, 2012, 1, 353-361.	1.2	15
47	The structure of Wntch signalling and the resolution of transition states in development. Seminars in Cell and Developmental Biology, 2012, 23, 443-449.	5.0	33
48	Correlations Between the Levels of Oct4 and Nanog as a Signature for NaÃ¯ve Pluripotency in Mouse Embryonic Stem Cells. Stem Cells, 2012, 30, 2683-2691.	3.2	48
49	Wntâ€Notch signalling: An integrated mechanism regulating transitions between cell states. BioEssays, 2012, 34, 110-118.	2.5	40
50	Endocytic and Recycling Endosomes Modulate Cell Shape Changes and Tissue Behaviour during Morphogenesis in Drosophila. PLoS ONE, 2011, 6, e18729.	2.5	46
51	Patterned Cell Adhesion Associated with Tissue Deformations during Dorsal Closure in Drosophila. PLoS ONE, 2011, 6, e27159.	2.5	11
52	Gene expression heterogeneities in embryonic stem cell populations: origin and function. Current Opinion in Cell Biology, 2011, 23, 650-656.	5.4	96
53	A Role of Receptor Notch in Ligand cis-Inhibition in Drosophila. Current Biology, 2010, 20, 554-560.	3.9	50
54	Wingless modulates the ligand independent traffic of Notch through Dishevelled. Fly, 2010, 4, 182-193.	1.7	24

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55	Ligand-Independent Traffic of Notch Buffers Activated Armadillo in Drosophila. PLoS Biology, 2009, 7, e1000169.	5.6	52
56	Regulated Fluctuations in Nanog Expression Mediate Cell Fate Decisions in Embryonic Stem Cells. PLoS Biology, 2009, 7, e1000149.	5.6	498
57	Mapping Organelle Proteins and Protein Complexes in <i>Drosophila melanogaster</i>. Journal of Proteome Research, 2009, 8, 2667-2678.	3.7	71
58	Origin and function of fluctuations in cell behaviour and the emergence of patterns. Seminars in Cell and Developmental Biology, 2009, 20, 877-884.	5.0	13
59	Drosophila melanogaster and the Development of Biology in the 20th Century. Methods in Molecular Biology, 2008, 420, 1-25.	0.9	47
60	Requirements for adherens junction components in the interaction between epithelial tissues during dorsal closure in<i>Drosophila</i>. Journal of Cell Science, 2007, 120, 3289-3298.	2.0	70
61	Cell and molecular biology of Notch. Journal of Endocrinology, 2007, 194, 459-474.	2.6	312
62	Dpp signalling orchestrates dorsal closure by regulating cell shape changes both in the amnioserosa and in the epidermis. Mechanisms of Development, 2007, 124, 884-897.	1.7	82
63	Filtering transcriptional noise during development: concepts and mechanisms. Nature Reviews Genetics, 2006, 7, 34-44.	16.3	247
64	High-throughput localization of organelle proteins by mass spectrometry: a quantum leap for cell biology. BioEssays, 2006, 28, 780-784.	2.5	7
65	Notch synergizes with axin to regulate the activity of armadillo in Drosophila. Developmental Dynamics, 2006, 235, 2656-2666.	1.8	32
66	Notch, a Universal Arbiter of Cell Fate Decisions. Science, 2006, 314, 1414-1415.	12.6	168
67	CELL SIGNALING: Frizzled at the Cutting Edge of the Synapse. Science, 2005, 310, 1284-1285.	12.6	1
68	Wnts as morphogens? The view from the wing of Drosophila. Nature Reviews Molecular Cell Biology, 2003, 4, 321-325.	37.0	56
69	Building and engineering organisms: the cellular interface. Mechanisms of Development, 2003, 120, 1213-1215.	1.7	0
70	CSL-independent Notch signalling: a checkpoint in cell fate decisions during development?. Current Opinion in Genetics and Development, 2002, 12, 524-533.	3.3	194
71	New alleles of Notch draw a blueprint for multifunctionality. Trends in Genetics, 2002, 18, 168-170.	6.7	21
72	A new dawn for an old connection: development meets the cell. Trends in Cell Biology, 2002, 12, 316-320.	7.9	5

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73	Planar polarity and actin dynamics in the epidermis of Drosophila. Nature Cell Biology, 2002, 4, 937-944.	10.3	109
74	Developmental biology comes of age. Journal of Cell Science, 2002, 115, 2623-2624.	2.0	0
75	Epithelial Mesenchymal Interactions in Cancer and Development. Cell, 2001, 105, 425-431.	28.9	186
76	Wnt signalling: a theme with nuclear variations. BioEssays, 2001, 23, 311-318.	2.5	119
77	Notch signaling targets the Wingless responsiveness of a Ubx visceral mesoderm enhancer in Drosophila. Current Biology, 2001, 11, 375-385.	3.9	41
78	Repression by Notch is required before Wingless signalling during muscle progenitor cell development in Drosophila. Current Biology, 1999, 9, 707-S1.	3.9	54
79	Wnt signalling: pathway or network?. Current Opinion in Genetics and Development, 1999, 9, 447-454.	3.3	103
80	The Abruptex Mutations of Notch Disrupt the Establishment of Proneural Clusters in Drosophila. Developmental Biology, 1999, 216, 230-242.	2.0	63
81	Wingless Modulates the Effects of Dominant Negative Notch Molecules in the Developing Wing of Drosophila. Developmental Biology, 1999, 216, 210-229.	2.0	44
82	Different Spatial and Temporal Interactions betweenNotch, wingless,andvestigialSpecify Proximal and Distal Pattern Elements of the Wing inDrosophila. Developmental Biology, 1998, 194, 196-212.	2.0	119
83	An Intrinsic Dominant Negative Activity of Serrate That Is Modulated during Wing Development inDrosophila. Developmental Biology, 1997, 189, 123-134.	2.0	119
84	A Functional Analysis of <i>Notch</i> Mutations in Drosophila. Genetics, 1997, 147, 177-188.	2.9	86
85	Insects take a homeotic test. Nature, 1994, 372, 408-409.	27.8	5
86	Secretion and movement of wingless protein in the epidermis of the Drosophila embryo. Mechanisms of Development, 1991, 35, 43-54.	1.7	238
87	Developmental biology. Trends in Genetics, 1989, 5, 31-32.	6.7	0
88	A cellular basis for pattern formation in the insect epidermis. Trends in Genetics, 1989, 5, 262-267.	6.7	41
89	Molecular biology of the cell - The problems book. Trends in Genetics, 1989, 5, 420.	6.7	0
90	Generating Gastruloids from Mouse Embryonic Stem Cells. Protocol Exchange, 0, , .	0.3	17