Alejandro SÃ¡nchez Alvarado

List of Publications by Year
in descending order

109 papers	12,786 citations	44069 48 h-index	30922 102 g-index
143 all docs	143 docs citations	143 times ranked	10842 citing authors

#	Article	IF	Citations
1	MAKER: An easy-to-use annotation pipeline designed for emerging model organism genomes. Genome Research, 2008, 18, 188-196.	5.5	1,564
2	FUNDAMENTALS OF PLANARIAN REGENERATION. Annual Review of Cell and Developmental Biology, 2004, 20, 725-757.	9.4	921
3	SMEDWI-2 Is a PIWI-Like Protein That Regulates Planarian Stem Cells. Science, 2005, 310, 1327-1330.	12.6	543
4	Not your father's planarian: a classic model enters the era of functional genomics. Nature Reviews Genetics, 2002, 3, 210-219.	16.3	454
5	Bromodeoxyuridine Specifically Labels the Regenerative Stem Cells of Planarians. Developmental Biology, 2000, 220, 142-153.	2.0	450
6	Î²-Catenin Defines Head Versus Tail Identity During Planarian Regeneration and Homeostasis. Science, 2008, 319, 323-327.	12.6	417
7	Bridging the regeneration gap: genetic insights from diverse animal models. Nature Reviews Genetics, 2006, 7, 873-884.	16.3	416
8	Identification of Genes Needed for Regeneration, Stem Cell Function, and Tissue Homeostasis by Systematic Gene Perturbation in Planaria. Developmental Cell, 2005, 8, 635-649.	7.0	386
9	Molecular Analysis of Stem Cells and Their Descendants during Cell Turnover and Regeneration in the Planarian Schmidtea mediterranea. Cell Stem Cell, 2008, 3, 327-339.	11.1	347
10	Slicing across Kingdoms: Regeneration in Plants and Animals. Cell, 2008, 132, 697-710.	28.9	345
11	Cell death and tissue remodeling in planarian regeneration. Developmental Biology, 2010, 338, 76-85.	2.0	300
12	Formaldehydeâ€based wholeâ€mount in situ hybridization method for planarians. Developmental Dynamics, 2009, 238, 443-450.	1.8	298
13	Regeneration in the metazoans: why does it happen?. BioEssays, 2000, 22, 578-590.	2.5	269
14	Cell Turnover and Adult Tissue Homeostasis: From Humans to Planarians. Annual Review of Genetics, 2007, 41, 83-105.	7.6	266
15	Ingestion of bacterially expressed double-stranded RNA inhibits gene expression in planarians. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11861-11865.	7.1	260
16	SmedGD: the Schmidtea mediterranea genome database. Nucleic Acids Research, 2007, 36, D599-D606.	14.5	251
17	FGFR-related gene nou-darake restricts brain tissues to the head region of planarians. Nature, 2002, 419, 620-624.	27.8	244
18	The Schmidtea mediterranea database as a molecular resource for studying platyhelminthes, stem cells and regeneration. Development (Cambridge), 2002, 129, 5659-5665.	2.5	222

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19	Rethinking Differentiation: Stem Cells, Regeneration, and Plasticity. Cell, 2014, 157, 110-119.	28.9	217
20	Planarian Hh Signaling Regulates Regeneration Polarity and Links Hh Pathway Evolution to Cilia. Science, 2009, 326, 1406-1410.	12.6	213
21	Prospectively Isolated Tetraspanin+ Neoblasts Are Adult Pluripotent Stem Cells Underlying Planaria Regeneration. Cell, 2018, 173, 1593-1608.e20.	28.9	213
22	Expression of secreted Wnt pathway components reveals unexpected complexity of the planarian amputation response. Developmental Biology, 2010, 347, 24-39.	2.0	186
23	The history and enduring contributions of planarians to the study of animal regeneration. Wiley Interdisciplinary Reviews: Developmental Biology, 2013, 2, 301-326.	5.9	170
24	A planarian p53 homolog regulates proliferation and self-renewal in adult stem cell lineages. Development (Cambridge), 2010, 137, 213-221.	2.5	157
25	BMP signaling regulates the dorsal planarian midline and is needed for asymmetric regeneration. Development (Cambridge), 2007, 134, 4043-4051.	2.5	156
26	Planarian Regeneration: Its End Is Its Beginning. Cell, 2006, 124, 241-245.	28.9	155
27	Centrosome Loss in the Evolution of Planarians. Science, 2012, 335, 461-463.	12.6	154
28	Allometric scaling and proportion regulation in the freshwater planarianSchmidtea mediterranea. Developmental Dynamics, 2003, 226, 326-333.	1.8	147
29	Changes in regeneration-responsive enhancers shape regenerative capacities in vertebrates. Science, 2020, 369, .	12.6	147
30	CRISPR-Cas13d Induces Efficient mRNA Knockdown in Animal Embryos. Developmental Cell, 2020, 54, 805-817.e7.	7.0	134
31	High-resolution profiling and discovery of planarian small RNAs. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11546-11551.	7.1	128
32	Morphological and Functional Recovery of the Planarian Photosensing System during Head Regeneration. Zoological Science, 2004, 21, 275-283.	0.7	126
33	Selective amputation of the pharynx identifies a FoxA-dependent regeneration program in planaria. ELife, 2014, 3, e02238.	6.0	121
34	SmedGD 2.0: The Schmidtea mediterranea genome database. Genesis, 2015, 53, 535-546.	1.6	114
35	Mitochondrial pathway of apoptosis is ancestral in metazoans. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4904-4909.	7.1	104
36	The maintenance and regeneration of the planarian excretory system are regulated by EGFR signaling. Development (Cambridge), 2011, 138, 3769-3780.	2.5	101

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37	De novo assembly and validation of planaria transcriptome by massive parallel sequencing and shotgun proteomics. Genome Research, 2011, 21, 1193-1200.	5.5	100
38	Egr-5 is a post-mitotic regulator of planarian epidermal differentiation. ELife, 2015, 4, e10501.	6.0	97
39	Amputation induces stem cell mobilization to sites of injury during planarian regeneration. Development (Cambridge), 2012, 139, 3510-3520.	2.5	82
40	Pathogenic shifts in endogenous microbiota impede tissue regeneration via distinct activation of TAK1/MKK/p38. ELife, 2016, 5, .	6.0	81
41	Planarian PTEN homologs regulate stem cells and regeneration through TOR signaling. DMM Disease Models and Mechanisms, 2008, 1, 131-143.	2.4	79
42	Vertebrate diapause preserves organisms long term through Polycomb complex members. Science, 2020, 367, 870-874.	12.6	79
43	The freshwater planarian Schmidtea mediterranea: embryogenesis, stem cells and regeneration. Current Opinion in Genetics and Development, 2003, 13, 438-444.	3.3	70
44	Egf Signaling Directs Neoblast Repopulation by Regulating Asymmetric Cell Division in Planarians. Developmental Cell, 2016, 38, 413-429.	7.0	67
45	Embryonic origin of adult stem cells required for tissue homeostasis and regeneration. ELife, 2017, 6, .	6.0	67
46	Signatures of Divergence, Invasiveness, and Terrestrialization Revealed by Four Apple Snail Genomes. Molecular Biology and Evolution, 2019, 36, 1507-1520.	8.9	65
47	Stem cells and fluid flow drive cyst formation in an invertebrate excretory organ. ELife, 2015, 4, .	6.0	65
48	Multicellularity, stem cells, and the neoblasts of the planarian Schmidtea mediterranea. Experimental Cell Research, 2005, 306, 299-308.	2.6	64
49	Set1 and MLL1/2 Target Distinct Sets of Functionally Different Genomic Loci InÂVivo. Cell Reports, 2015, 13, 2741-2755.	6.4	56
50	Regeneration and the need for simpler model organisms. Philosophical Transactions of the Royal Society B: Biological Sciences, 2004, 359, 759-763.	4.0	51
51	Stem cells and the Planarian Schmidtea mediterranea. Comptes Rendus - Biologies, 2007, 330, 498-503.	0.2	45
52	Flow cytometry methods for the study of cellâ€cycle parameters of planarian stem cells. Developmental Dynamics, 2009, 238, 1111-1117.	1.8	45
53	TORC1 is required to balance cell proliferation and cell death in planarians. Developmental Biology, 2012, 365, 458-469.	2.0	45
54	Wnt and TGFÎ² coordinate growth and patterning to regulate size-dependent behaviour. Nature, 2019, 572, 655-659.	27.8	42

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55	Types or States? Cellular Dynamics and Regenerative Potential. Trends in Cell Biology, 2015, 25, 687-696.	7.9	39
56	Planarians recruit piRNAs for mRNA turnover in adult stem cells. Genes and Development, 2019, 33, 1575-1590.	5.9	39
57	Culturing Planarians in theÂLaboratory. Methods in Molecular Biology, 2018, 1774, 241-258.	0.9	38
58	Identification of rare, transient post-mitotic cell states that are induced by injury and required for whole-body regeneration in Schmidtea mediterranea. Nature Cell Biology, 2021, 23, 939-952.	10.3	38
59	Identification of immunological reagents for use in the study of freshwater planarians by means of whole-mount immunofluorescence and confocal microscopy. Genesis, 2002, 32, 293-298.	1.6	37
60	Cellular, ultrastructural and molecular analyses of epidermal cell development in the planarian Schmidtea mediterranea. Developmental Biology, 2018, 433, 357-373.	2.0	35
61	The miR-124 family of microRNAs is critical for regeneration of the brain and visual system in the planarian Schmidtea mediterranea. Development (Cambridge), 2017, 144, 3211-3223.	2.5	31
62	Comparative and Transcriptome Analyses Uncover Key Aspects of Coding- and Long Noncoding RNAs in Flatworm Mitochondrial Genomes. G3: Genes, Genomes, Genetics, 2016, 6, 1191-1200.	1.8	30
63	Head regeneration in hemichordates is not a strict recapitulation of development. Developmental Dynamics, 2016, 245, 1159-1175.	1.8	28
64	The use of planarians to dissect the molecular basis of metazoan regeneration. Wound Repair and Regeneration, 1998, 6, S-413-S-420.	3.0	27
65	Synaptonemal complex extension from clustered telomeres mediates full-length chromosome pairing in Schmidtea mediterranea. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5159-68.	7.1	27
66	Widespread maintenance of genome heterozygosity in Schmidteaâ€‰mediterranea. Nature Ecology and Evolution, 2017, 1, 19.	7.8	27
67	Q&A: What is regeneration, and why look to planarians for answers?. BMC Biology, 2012, 10, 88.	3.8	26
68	An adaptable chromosome preparation methodology for use in invertebrate research organisms. BMC Biology, 2018, 16, 25.	3.8	26
69	Histone Modifications and Regeneration in the Planarian Schmidtea mediterranea. Current Topics in Developmental Biology, 2014, 108, 71-93.	2.2	25
70	Efficient depletion of ribosomal RNA for RNA sequencing in planarians. BMC Genomics, 2019, 20, 909.	2.8	25
71	Gene nomenclature guidelines for the planarian Schmidtea mediterranea. Developmental Dynamics, 2008, 237, 3099-3101.	1.8	23
72	Cellular Hyperproliferation and Cancer as Evolutionary Variables. Current Biology, 2012, 22, R772-R778.	3.9	23

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73	Enhanced lipogenesis through PparÎ³ helps cavefish adapt to food scarcity. Current Biology, 2022, 32, 2272-2280.e6.	3.9	23
74	Hands-On Classroom Activities for Exploring Regeneration and Stem Cell Biology with Planarians. American Biology Teacher, 2017, 79, 208-223.	0.2	20
75	To solve old problems, study new research organisms. Developmental Biology, 2018, 433, 111-114.	2.0	20
76	Island-specific evolution of a sex-primed autosome in a sexual planarian. Nature, 2022, 606, 329-334.	27.8	19
77	Molecular cloning and characterization of SL3: A stem cell-specific SL RNA from the planarian Schmidtea mediterranea. Gene, 2014, 533, 156-167.	2.2	17
78	PHRED-1 is a divergent neurexin-1 homolog that organizes muscle fibers and patterns organs during regeneration. Developmental Biology, 2017, 427, 165-175.	2.0	15
79	Regulation of Genomic Output and (Pluri)potency in Regeneration. Annual Review of Genetics, 2019, 53, 327-346.	7.6	15
80	Planarian Immobilization, Partial Irradiation, and Tissue Transplantation. Journal of Visualized Experiments, 2012, , .	0.3	14
81	Planarians and theÂHistory of Animal Regeneration: Paradigm Shifts and Key Concepts in Biology. Methods in Molecular Biology, 2018, 1774, 207-239.	0.9	13
82	Planarians. Current Biology, 2004, 14, R737-R738.	3.9	12
83	A cellular view of regeneration. Nature, 2009, 460, 39-40.	27.8	12
84	Stem cells in animal models of regeneration. Stembook, 2008, , .	0.3	11
85	Decellularization Enables CharacterizationÂand Functional Analysis of Extracellular Matrix in Planarian Regeneration. Molecular and Cellular Proteomics, 2021, 20, 100137.	3.8	11
86	Planarian Anatomy Ontology: a resource to connect data within and across experimental platforms. Development (Cambridge), 2021, 148, .	2.5	11
87	Systemic RNA Interference in Planarians by Feeding of dsRNA Containing Bacteria. Methods in Molecular Biology, 2018, 1774, 445-454.	0.9	10
88	Hox genes regulate asexual reproductive behavior and tissue segmentation in adult animals. Nature Communications, 2021, 12, 6706.	12.8	10
89	Whole-Mount BrdU Staining with Fluorescence In Situ Hybridization in Planarians. Methods in Molecular Biology, 2018, 1774, 423-434.	0.9	7
90	Image3C, a multimodal image-based and label-independent integrative method for single-cell analysis. ELife, 2021, 10, .	6.0	7

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91	Planarian High Molecular Weight DNA Isolation byÂSpooling. Methods in Molecular Biology, 2018, 1774, 277-284.	0.9	6
92	Schmidtea happens: Re-establishing the planarian as a model for studying the mechanisms of regeneration. Current Topics in Developmental Biology, 2022, 147, 307-344.	2.2	5
93	The Shredding of a Caricature. Cell, 2008, 135, 991-992.	28.9	2
94	Learning about loss. ELife, 2013, 2, e00533.	6.0	2
95	On the trail of a tropical disease. ELife, 2013, 2, e01115.	6.0	2
96	Unravelling a can of worms. ELife, 2015, 4, .	6.0	2
97	Complete Regeneration of a Cameraâ€type Eye in the Research Organism Pomacea canaliculata. FASEB Journal, 2018, 32, 232.4.	0.5	2
98	Bridging the regeneration gap: insights from echinoderm models. Nature Reviews Genetics, 2007, 8, 320-320.	16.3	1
99	Widening perspectives on regenerative processes through growth. Npj Regenerative Medicine, 2016, 1, .	5.2	1
100	Dr. Panagiotis (Takis) Tsonis: A man for all seasons. Developmental Biology, 2018, 433, 115-117.	2.0	1
101	The Diverse Manifestations of Regeneration and Why We Need to Study Them. Cold Spring Harbor Perspectives in Biology, 2021, , a040931.	5.5	1
102	Developmental biology is poised to discover altogether new principles in biology in the 21st century. Developmental Biology, 2022, 488, 47-47.	2.0	1
103	Molecular characterization of a flatworm Girardia isolate from Guanajuato, Mexico. Developmental Biology, 2022, 489, 165-177.	2.0	1
104	Design, Implementation and Deployment of a Commodity Cluster for Periodic Comparisons of Gene Sequences. , 2006, , 733-744.		0
105	Gene nomenclature guidelines for the planarianSchmidtea mediterranea. Developmental Dynamics, 2008, 237, spcone-spcone.	1.8	0
106	Formaldehyde-based whole-mount in situ hybridization method for planarians. Developmental Dynamics, 2009, 238, spcone-spcone.	1.8	0
107	Unceasingly searching for answers - an interview with Claudio Stern. International Journal of Developmental Biology, 2021, 65, 131-136.	0.6	0
108	Planarian Ovary Dissection for Ultrastructural Analysis and Antibody Staining. Journal of Visualized Experiments, 2021, , .	0.3	0

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109	Systematic analysis of cell signaling during planarian tissue regeneration, remodeling & homeostasis. FASEB Journal, 2008, 22, 390.1.	0.5	0