Giacomo Cavalli

List of Publications by Year
in descending order

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129 papers	17,897 citations	23567 58 h-index	16183 124 g-index
152 all docs	152 docs citations	152 times ranked	16506 citing authors

#	Article	IF	Citations
1	Three-Dimensional Folding and Functional Organization Principles of the Drosophila Genome. Cell, 2012, 148, 458-472.	28.9	1,728
2	Genome Regulation by Polycomb and Trithorax Proteins. Cell, 2007, 128, 735-745.	28.9	1,258
3	Multiscale 3D Genome Rewiring during Mouse Neural Development. Cell, 2017, 171, 557-572.e24.	28.9	1,060
4	Advances in epigenetics link genetics to the environment and disease. Nature, 2019, 571, 489-499.	27.8	863
5	Genome Regulation by Polycomb and Trithorax: 70 Years and Counting. Cell, 2017, 171, 34-57.	28.9	842
6	Organization and function of the 3D genome. Nature Reviews Genetics, 2016, 17, 661-678.	16.3	821
7	Dynamic genome architecture in the nuclear space: regulation of gene expression in three dimensions. Nature Reviews Genetics, 2007, 8, 104-115.	16.3	721
8	Trithorax group proteins: switching genes on and keeping them active. Nature Reviews Molecular Cell Biology, 2011, 12, 799-814.	37.0	429
9	Principles of genome folding into topologically associating domains. Science Advances, 2019, 5, eaaw1668.	10.3	415
10	The Role of Chromosome Domains in Shaping the Functional Genome. Cell, 2015, 160, 1049-1059.	28.9	391
11	Functional implications of genome topology. Nature Structural and Molecular Biology, 2013, 20, 290-299.	8.2	382
12	Polycomb-Dependent Regulatory Contacts between Distant Hox Loci in Drosophila. Cell, 2011, 144, 214-226.	28.9	374
13	Recruitment of Polycomb group complexes and their role in the dynamic regulation of cell fate choice. Development (Cambridge), 2009, 136, 3531-3542.	2.5	370
14	Modeling epigenome folding: formation and dynamics of topologically associated chromatin domains. Nucleic Acids Research, 2014, 42, 9553-9561.	14.5	362
15	The Drosophila Fab-7 Chromosomal Element Conveys Epigenetic Inheritance during Mitosis and Meiosis. Cell, 1998, 93, 505-518.	28.9	350
16	RNAi Components Are Required for Nuclear Clustering of Polycomb Group Response Elements. Cell, 2006, 124, 957-971.	28.9	288
17	Functional Anatomy of Polycomb and Trithorax Chromatin Landscapes in Drosophila Embryos. PLoS Biology, 2009, 7, e1000013.	5.6	281
18	Epigenetic Inheritance of Active Chromatin After Removal of the Main Transactivator. Science, 1999, 286, 955-958.	12.6	238

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19	TADs are 3D structural units of higher-order chromosome organization in Drosophila. Science Advances, 2018, 4, eaar8082.	10.3	237
20	Co-localization of Polycomb protein and GAGA factor on regulatory elements responsible for the maintenance of homeotic gene expression. EMBO Journal, 1997, 16, 3621-3632.	7.8	230
21	Inheritance of Polycomb-dependent chromosomal interactions in Drosophila. Genes and Development, 2003, 17, 2406-2420.	5.9	221
22	Chromosomal Distribution of PcG Proteins during Drosophila Development. PLoS Biology, 2006, 4, e170.	5.6	218
23	Polycomb-Dependent Chromatin Looping Contributes to Gene Silencing during Drosophila Development. Molecular Cell, 2018, 71, 73-88.e5.	9.7	208
24	Understanding 3D genome organization by multidisciplinary methods. Nature Reviews Molecular Cell Biology, 2021, 22, 511-528.	37.0	185
25	Microscopy-Based Chromosome Conformation Capture Enables Simultaneous Visualization of Genome Organization and Transcription in Intact Organisms. Molecular Cell, 2019, 74, 212-222.e5.	9.7	183
26	Molecular mechanisms of transgenerational epigenetic inheritance. Nature Reviews Genetics, 2022, 23, 325-341.	16.3	182
27	Chromo-domain proteins: linking chromatin structure to epigenetic regulation. Current Opinion in Cell Biology, 1998, 10, 354-360.	5.4	168
28	Dissection of a Natural RNA Silencing Process in the Drosophila melanogaster Germ Line. Molecular and Cellular Biology, 2004, 24, 6742-6750.	2.3	166
29	From genetics to epigenetics: the tale of Polycomb group and trithorax group genes. Chromosome Research, 2006, 14, 363-375.	2.2	157
30	Chromosome conformation capture technologies and their impact in understanding genome function. Chromosoma, 2017, 126, 33-44.	2.2	143
31	Single-cell absolute contact probability detection reveals chromosomes are organized by multiple low-frequency yet specific interactions. Nature Communications, 2017, 8, 1753.	12.8	137
32	Recruitment of Drosophila Polycomb group proteins to chromatin by DSP1. Nature, 2005, 434, 533-538.	27.8	136
33	Regulation of single-cell genome organization into TADs and chromatin nanodomains. Nature Genetics, 2020, 52, 1151-1157.	21.4	127
34	Genomic interactions: Chromatin loops and gene meeting points in transcriptional regulation. Seminars in Cell and Developmental Biology, 2009, 20, 849-855.	5.0	123
35	Cellular memory and dynamic regulation of polycomb group proteins. Current Opinion in Cell Biology, 2006, 18, 275-283.	5.4	122
36	Polyhomeotic has a tumor suppressor activity mediated by repression of Notch signaling. Nature Genetics, 2009, 41, 1076-1082.	21.4	112

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37	Polycomb group proteins: repression in 3D. Trends in Genetics, 2011, 27, 454-464.	6.7	112
38	Progressive Polycomb Assembly on H3K27me3 Compartments Generates Polycomb Bodies with Developmentally Regulated Motion. PLoS Genetics, 2012, 8, e1002465.	3.5	110
39	LifeTime and improving European healthcare through cell-based interceptive medicine. Nature, 2020, 587, 377-386.	27.8	108
40	4D Genome Rewiring during Oncogene-Induced and Replicative Senescence. Molecular Cell, 2020, 78, 522-538.e9.	9.7	107
41	A chromatin insulator driving three-dimensional Polycomb response element (PRE) contacts and Polycomb association with the chromatin fiber. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2294-2299.	7.1	104
42	Chromatin transitions during activation and repression of galactose-regulated genes in yeast.. EMBO Journal, 1993, 12, 4603-4613.	7.8	98
43	Chromatin-Driven Behavior of Topologically Associating Domains. Journal of Molecular Biology, 2015, 427, 608-625.	4.2	95
44	Regulation of Genome Architecture and Function by Polycomb Proteins. Trends in Cell Biology, 2016, 26, 511-525.	7.9	91
45	The role of Polycomb Group Proteins in Cell Cycle Regulation During Development. Cell Cycle, 2006, 5, 1189-1197.	2.6	89
46	Polycomb silencing: from linear chromatin domains to 3D chromosome folding. Current Opinion in Genetics and Development, 2014, 25, 30-37.	3.3	84
47	Chromatin inheritance upon Zeste-mediated Brahma recruitment at a minimal cellular memory module. EMBO Journal, 2004, 23, 857-868.	7.8	83
48	Stable Polycomb-dependent transgenerational inheritance of chromatin states in Drosophila. Nature Genetics, 2017, 49, 876-886.	21.4	81
49	PRE-Mediated Bypass of Two Su(Hw) Insulators Targets PcG Proteins to a Downstream Promoter. Developmental Cell, 2006, 11, 117-124.	7.0	77
50	EZH2 in normal hematopoiesis and hematological malignancies. Oncotarget, 2016, 7, 2284-2296.	1.8	77
51	The MYST Domain Acetyltransferase Chameau Functions in Epigenetic Mechanisms of Transcriptional Repression. Current Biology, 2002, 12, 762-766.	3.9	73
52	Protein-DNA interaction mapping using genomic tiling path microarrays in Drosophila. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 9428-9433.	7.1	73
53	Interaction between the GAGA factor and Mod(mdg4) proteins promotes insulator bypass in Drosophila. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14806-14811.	7.1	73
54	Widespread activation of developmental gene expression characterized by PRC1-dependent chromatin looping. Science Advances, 2020, 6, eaax4001.	10.3	72

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55	Chromosome kissing. Current Opinion in Genetics and Development, 2007, 17, 443-450.	3.3	70
56	Coordinate redeployment of PRC1 proteins suppresses tumor formation during Drosophila development. Nature Genetics, 2016, 48, 1436-1442.	21.4	70
57	Cooperativity, Specificity, and Evolutionary Stability of Polycomb Targeting in Drosophila. Cell Reports, 2014, 9, 219-233.	6.4	69
58	In vivo formaldehyde cross-linking: it is time for black box analysis. Briefings in Functional Genomics, 2015, 14, 163-165.	2.7	64
59	Combinatorial epigenetics, â€œjunk DNAâ€, and the evolution of complex organisms. Gene, 2007, 390, 232-242.	2.2	62
60	Chromosomal domains: epigenetic contexts and functional implications of genomic compartmentalization. Current Opinion in Genetics and Development, 2013, 23, 197-203.	3.3	61
61	Three-Dimensional Genome Organization and Function in Drosophila. Genetics, 2017, 205, 5-24.	2.9	61
62	Mapping the Distribution of Chromatin Proteins by ChIP on Chip. Methods in Enzymology, 2006, 410, 316-341.	1.0	56
63	Identification and characterization of polyhomeotic PREs and TREs. Developmental Biology, 2003, 261, 426-442.	2.0	55
64	Polycomb group-dependent Cyclin A repression in Drosophila. Genes and Development, 2006, 20, 501-513.	5.9	52
65	Mechanisms of Polycomb group protein function in cancer. Cell Research, 2022, 32, 231-253.	12.0	52
66	Identification of Regulators of the Three-Dimensional Polycomb Organization by a Microscopy-Based Genome-wide RNAi Screen. Molecular Cell, 2014, 54, 485-499.	9.7	49
67	SNR1 is an essential subunit in a subset of drosophila brm complexes, targeting specific functions during development. Developmental Biology, 2003, 253, 291-308.	2.0	48
68	Loss of PRC1 induces higher-order opening of Hox loci independently of transcription during Drosophila embryogenesis. Nature Communications, 2018, 9, 3898.	12.8	48
69	PRC2 Controls Drosophila Oocyte Cell Fate by Repressing Cell Cycle Genes. Developmental Cell, 2013, 26, 431-439.	7.0	47
70	Challenges and guidelines toward 4D nucleome data and model standards. Nature Genetics, 2018, 50, 1352-1358.	21.4	47
71	Combined Immunostaining and FISH Analysis of Polytene Chromosomes. , 2004, 247, 289-304.		45
72	Developmental determinants in non-communicable chronic diseases and ageing. Thorax, 2015, 70, 595-597.	5.6	45

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73	Engrailed and polyhomeotic maintain posterior cell identity through cubitus-interruptus regulation. Developmental Biology, 2004, 272, 522-535.	2.0	41
74	Cell Fate and Developmental Regulation Dynamics by Polycomb Proteins and 3D Genome Architecture. BioEssays, 2019, 41, e1800222.	2.5	41
75	Polycomb: a paradigm for genome organization from one to three dimensions. Current Opinion in Cell Biology, 2012, 24, 405-414.	5.4	39
76	Chromosome topology guides the Drosophila Dosage Compensation Complex for target gene activation. EMBO Reports, 2017, 18, 1854-1868.	4.5	39
77	Higher-Order Chromosomal Structures Mediate Genome Function. Journal of Molecular Biology, 2020, 432, 676-681.	4.2	37
78	Inactivation of topoisomerases affects transcription-dependent chromatin transitions in rDNA but not in a gene transcribed by RNA polymerase II.. EMBO Journal, 1996, 15, 590-597.	7.8	35
79	Technical Review: A Hitchhikerâ€™s Guide to Chromosome Conformation Capture. Methods in Molecular Biology, 2018, 1675, 233-246.	0.9	34
80	The multiscale effects of polycomb mechanisms on 3D chromatin folding. Critical Reviews in Biochemistry and Molecular Biology, 2019, 54, 399-417.	5.2	33
81	EZH2 is overexpressed in transitional preplasmablasts and is involved in human plasma cell differentiation. Leukemia, 2019, 33, 2047-2060.	7.2	33
82	PRC2 targeting is a therapeutic strategy for EZ score defined high-risk multiple myeloma patients and overcome resistance to IMiDs. Clinical Epigenetics, 2018, 10, 121.	4.1	32
83	Pericentromeric heterochromatin is hierarchically organized and spatially contacts H3K9me2 islands in euchromatin. PLoS Genetics, 2020, 16, e1008673.	3.5	32
84	MACVIA-LR, Reference site of the European Innovation Partnership on Active and Healthy Ageing (EIP on) Tj ETQq0 0 0 rgBT /Overlock 10	2.8	29
85	SETDB1/NSD-dependent H3K9me3/H3K36me3 dual heterochromatin maintains gene expression profiles by bookmarking poised enhancers. Molecular Cell, 2022, 82, 816-832.e12.	9.7	29
86	Global chromatin conformation differences in the Drosophila dosage compensated chromosome X. Nature Communications, 2019, 10, 5355.	12.8	28
87	Polycomb Domain Formation Depends on Short and Long Distance Regulatory Cues. PLoS ONE, 2013, 8, e56531.	2.5	26
88	Chromatin as a eukaryotic template of genetic information. Current Opinion in Cell Biology, 2002, 14, 269-278.	5.4	25
89	Rolling ES Cells Down the Waddington Landscape with Oct4 and Sox2. Cell, 2011, 145, 815-817.	28.9	22
90	Heritable Chromatin States Induced by the Polycomb and Trithorax Group Genes. Novartis Foundation Symposium, 1998, 214, 51-66.	1.1	22

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91	Chapter 2 Polycomb Group Proteins and Longâ€Range Gene Regulation. Advances in Genetics, 2008, 61, 45-66.	1.8	20
92	The Epigenome Network of Excellence. PLoS Biology, 2005, 3, e177.	5.6	18
93	EZH2 Goes Solo. Science, 2012, 338, 1430-1431.	12.6	17
94	Topological Organization of Drosophila Hox Genes Using DNA Fluorescent In Situ Hybridization. Methods in Molecular Biology, 2014, 1196, 103-120.	0.9	17
95	Epigenetic Inheritance of Chromatin States Mediated by Polycomb and Trithorax Group Proteins in Drosophila. , 2005, 38, 31-63.		15
96	Histone H3 Serine 28 Is Essential for Efficient Polycomb-Mediated Gene Repression in Drosophila. Cell Reports, 2015, 11, 1437-1445.	6.4	15
97	Clinical Correlations of Polycomb Repressive Complex 2 in Different Tumor Types. Cancers, 2021, 13, 3155.	3.7	14
98	Identification of the peroxidation product hydroxystearic acid in Lewis lung carcinoma cells. Biochemical and Biophysical Research Communications, 1991, 178, 1260-1265.	2.1	12
99	The 3D Genome Shapes Up For Pluripotency. Cell Stem Cell, 2013, 13, 3-4.	11.1	11
100	Distinct polymer physics principles govern chromatin dynamics in mouse and Drosophila topological domains. BMC Genomics, 2015, 16, 607.	2.8	11
101	Polycomb Controls Gliogenesis by Regulating the Transient Expression of the Gcm/Glide Fate Determinant. PLoS Genetics, 2012, 8, e1003159.	3.5	10
102	Comprehensive characterization of the epigenetic landscape in Multiple Myeloma. Theranostics, 2022, 12, 1715-1729.	10.0	10
103	Chromatin Folding: From Linear Chromosomes to the 4D Nucleus. Cold Spring Harbor Symposia on Quantitative Biology, 2010, 75, 461-473.	1.1	9
104	The DUBle Life of Polycomb Complexes. Developmental Cell, 2010, 18, 878-880.	7.0	9
105	Role of Polycomb Complexes in Normal and Malignant Plasma Cells. International Journal of Molecular Sciences, 2020, 21, 8047.	4.1	9
106	Chromatin Immunoprecipitation Experiments from Whole Drosophila Embryos or Larval Imaginal Discs. Bio-protocol, 2017, 7, e2327.	0.4	9
107	Targeting EZH2 in Multiple Myeloma Could be Promising for a Subgroup of MM Patients in Combination with IMiDs. Blood, 2016, 128, 311-311.	1.4	8
108	MACVIA-LR (FIGHTING CHRONIC DISEASES FOR ACTIVE AND HEALTHY AGEING IN LANGUEDOC-ROUSSILLON): A SUCCESS STORY OF THE EUROPEAN INNOVATION PARTNERSHIP ON ACTIVE AND HEALTHY AGEING. Journal of Frailty & Aging,the, 2016, 5, 1-9.	1.3	8

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109	Chromosomes: now in 3D!. Nature Reviews Molecular Cell Biology, 2014, 15, 6-6.	37.0	7
110	From Linear Genes to Epigenetic Inheritance of Three-dimensional Epigenomes. Journal of Molecular Biology, 2011, 409, 54-61.	4.2	5
111	A shared ancient enhancer element differentially regulates the bric-a-brac tandem gene duplicates in the developing Drosophila leg. PLoS Genetics, 2022, 18, e1010083.	3.5	5
112	Uncovering a tumor-suppressor function for Drosophila Polycomb group genes. Cell Cycle, 2010, 9, 215-216.	2.6	4
113	A RING to Rule Them All: RING1 as Silencer and Activator. Developmental Cell, 2014, 28, 1-2.	7.0	4
114	Higher-Order Chromatin Organization Using 3D DNA Fluorescent In Situ Hybridization. Methods in Molecular Biology, 2021, 2157, 221-237.	0.9	4
115	Enhancer of zeste acts as a major developmental regulator ofCiona intestinalisembryogenesis. Biology Open, 2015, 4, 1109-1121.	1.2	3
116	HiCmapTools: a tool to access HiC contact maps. BMC Bioinformatics, 2022, 23, 64.	2.6	3
117	PRC1 proteins orchestrate three-dimensional genome architecture. Nature Genetics, 2015, 47, 1105-1106.	21.4	2
118	Polycomb Function and Nuclear Organization. , 2017, , 131-163.		2
119	Microscopy-Based Chromosome Conformation Capture Enables Simultaneous Visualization of Genome Organization and Transcription in Intact Organisms. SSRN Electronic Journal, 0, , .	0.4	2
120	MODELLING OF POLYCOMB-DEPENDENT CHROMOSOMAL INTERACTIONS INVOLVED IN DROSOPHILA GENE SILENCING. International Journal of Modern Physics C, 2006, 17, 757-767.	1.7	1
121	MODELLING OF POLYCOMB-DEPENDENT CHROMOSOMAL INTERACTIONS INVOLVED IN DROSOPHILA GENE SILENCING. Biophysical Reviews and Letters, 2006, 01, 141-151.	0.8	0
122	Editorial overview. Current Opinion in Cell Biology, 2011, 23, 255-257.	5.4	0
123	Following the Motion of Polycomb Bodies in Living Drosophila Embryos. Methods in Molecular Biology, 2016, 1480, 283-288.	0.9	0
124	Chromosome Conformation Capture on Chip (4C): Data Processing. Methods in Molecular Biology, 2016, 1480, 243-261.	0.9	0
125	Comprehensive Characterization of the Epigenetic Landscape in Multiple Myeloma. Blood, 2020, 136, 2-3.	1.4	0
126	Title is missing!. , 2020, 16, e1008673.		0

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127	Title is missing!. , 2020, 16, e1008673.		0
128	Title is missing!. , 2020, 16, e1008673.		0
129	Title is missing!. , 2020, 16, e1008673.		0