Tom Misteli

List of Publications by Year
in descending order

97 papers	14,481 citations	57758 44 h-index	45317 90 g-index
118 all docs	118 docs citations	118 times ranked	15582 citing authors

#	Article	IF	Citations
1	The stochastic nature of genome organization and function. Current Opinion in Genetics and Development, 2022, 72, 45-52.	3.3	18
2	Function moves biomolecular condensates in phase space. BioEssays, 2022, 44, e2200001.	2.5	6
3	HiIDDD: a high-throughput imaging pipeline for the quantitative detection of DNA damage in primary human immune cells. Scientific Reports, 2022, 12, 6335.	3.3	2
4	Farnesyltransferase inhibition in HGPS. Cell, 2021, 184, 293.	28.9	15
5	Selfâ€assembly of multiâ€component mitochondrial nucleoids via phase separation. EMBO Journal, 2021, 40, e107165.	7.8	36
6	Systematic screening identifies therapeutic antisense oligonucleotides for Hutchinsonâ€"Gilford progeria syndrome. Nature Medicine, 2021, 27, 526-535.	30.7	44
7	Creating opportunities in cancer research. Nature Cancer, 2021, 2, 247-250.	13.2	0
8	Chromatin architecture is a flexible foundation for gene expression. Nature Genetics, 2021, 53, 426-427.	21.4	12
9	Deterministic assembly of chromosome ensembles in a programmable membrane trap array. Biofabrication, 2021, 13, 045005.	7.1	0
10	Phase separation in genome organization across evolution. Trends in Cell Biology, 2021, 31, 671-685.	7.9	62
11	A high-throughput DNA FISH protocol to visualize genome regions in human cells. STAR Protocols, 2021, 2, 100741.	1.2	8
12	Foreseeing the principles of genome architecture. Nature Reviews Genetics, 2021, , .	16.3	0
13	The Self-Organizing Genome: Principles of Genome Architecture and Function. Cell, 2020, 183, 28-45.	28.9	342
14	Visualizing Cancer. Cancer Cell, 2020, 38, 753-756.	16.8	4
15	Impairment of nuclear F-actin formation and its relevance to cellular phenotypes in Hutchinson-Gilford progeria syndrome. Nucleus, 2020, 11, 250-263.	2.2	8
16	A Deep Learning Pipeline for Nucleus Segmentation. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2020, 97, 1248-1264.	1.5	11
17	A programmable microfluidic platform for multisample injection, discretization, and droplet manipulation. Biomicrofluidics, 2020, 14, 014112.	2.4	4
18	Single molecule analysis of lamin dynamics. Methods, 2019, 157, 56-65.	3.8	3

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19	Deep Learning Based Segmentation of Nuclei from Fluorescence Microscopy Images. Microscopy and Microanalysis, 2019, 25, 1376-1377.	0.4	2
20	A genome disconnect. Nature Genetics, 2019, 51, 1205-1206.	21.4	14
21	Assessment of the Utility of Gene Positioning Biomarkers in the Stratification of Prostate Cancers. Frontiers in Genetics, 2019, 10, 1029.	2.3	6
22	Molecular basis and biological function of variability in spatial genome organization. Science, 2019, 365, .	12.6	168
23	Microfluidic on-demand droplet generation, storage, retrieval, and merging for single-cell pairing. Lab on A Chip, 2019, 19, 493-502.	6.0	38
24	The nucleoporin ELYS regulates nuclear size by controlling NPC number and nuclear import capacity. EMBO Reports, 2019, 20, .	4.5	52
25	Interplay of primary sequence, position and secondary RNA structure determines alternative splicing of LMNA in a pre-mature aging syndrome. Nucleic Acids Research, 2019, 47, 5922-5935.	14.5	13
26	Progerin accelerates atherosclerosis by inducing endoplasmic reticulum stress in vascular smooth muscle cells. EMBO Molecular Medicine, 2019, 11, .	6.9	83
27	Extensive Heterogeneity and Intrinsic Variation in Spatial Genome Organization. Cell, 2019, 176, 1502-1515.e10.	28.9	348
28	A Scalable Random Access Micro-traps Array for Formation, Selective Retrieval and Capturing of Individual Droplets. , 2019, 2019, 1054-1057.		0
29	HiPLA: High-throughput imaging proximity ligation assay. Methods, 2019, 157, 80-87.	3.8	7
30	Analysis of nuclear actin in human progeria cells. Biopolymers and Cell, 2019, 35, 238-239.	0.4	0
31	The Ubiquitin E3/E4 Ligase UBE4A Adjusts Protein Ubiquitylation and Accumulation at Sites of DNA Damage, Facilitating Double-Strand Break Repair. Molecular Cell, 2018, 69, 866-878.e7.	9.7	40
32	HiCTMap: Detection and analysis of chromosome territory structure and position by high-throughput imaging. Methods, 2018, 142, 30-38.	3.8	12
33	Protein sequestration at the nuclear periphery as a potential regulatory mechanism in premature aging. Journal of Cell Biology, 2018, 217, 21-37.	5.2	33
34	RefCell: multi-dimensional analysis of image-based high-throughput screens based on â€˜typical cellsâ€™. BMC Bioinformatics, 2018, 19, 427.	2.6	1
35	Active or Passive On-Demand Droplet Merging in a Microfluidic Valve-Based Trap*. , 2018, 2018, 5350-5353.		2
36	Blank spots on the map: some current questions on nuclear organization and genome architecture. Histochemistry and Cell Biology, 2018, 150, 579-592.	1.7	24

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37	The Making of a PreCancer Atlas: Promises, Challenges, and Opportunities. Trends in Cancer, 2018, 4, 523-536.	7.4	36
38	Effects of human sex chromosome dosage on spatial chromosome organization. Molecular Biology of the Cell, 2018, 29, 2458-2469.	2.1	17
39	Comparative analysis of 2D and 3D distance measurements to study spatial genome organization. Methods, 2017, 123, 47-55.	3.8	20
40	Genome Architecture from a Different Angle. Developmental Cell, 2017, 41, 3-4.	7.0	10
41	Causes and consequences of nuclear gene positioning. Journal of Cell Science, 2017, 130, 1501-1508.	2.0	47
42	Controlled droplet discretization and manipulation using membrane displacement traps. Lab on A Chip, 2017, 17, 3717-3724.	6.0	20
43	Identification of novel RNA isoforms of <i>LMNA</i>. Nucleus, 2017, 8, 573-582.	2.2	8
44	High-Throughput Imaging for the Discovery of Cellular Mechanisms of Disease. Trends in Genetics, 2017, 33, 604-615.	6.7	87
45	The genomeâ€"seeing it clearly now. Science, 2017, 357, 354-355.	12.6	4
46	Shared molecular and cellular mechanisms of premature ageing and ageing-associated diseases. Nature Reviews Molecular Cell Biology, 2017, 18, 595-609.	37.0	217
47	Myc Regulates Chromatin Decompaction and Nuclear Architecture during B Cell Activation. Molecular Cell, 2017, 67, 566-578.e10.	9.7	174
48	HiHiMap: single-cell quantitation of histones and histone posttranslational modifications across the cell cycle by high-throughput imaging. Molecular Biology of the Cell, 2017, 28, 2290-2302.	2.1	20
49	SpotLearn: Convolutional Neural Network for Detection of Fluorescence In Situ Hybridization (FISH) Signals in High-Throughput Imaging Approaches. Cold Spring Harbor Symposia on Quantitative Biology, 2017, 82, 57-70.	1.1	36
50	The decisionâ€making process and criteria in selecting candidate drugs for progeria clinical trials. EMBO Molecular Medicine, 2016, 8, 685-687.	6.9	7
51	The linker histone H1.0 generates epigenetic and functional intratumor heterogeneity. Science, 2016, 353, .	12.6	147
52	Spatial Genome Organization and Disease. , 2016, , 101-125.		5
53	Repression of the Antioxidant NRF2 Pathway in Premature Aging. Cell, 2016, 165, 1361-1374.	28.9	378
54	Tissue-of-origin-specific gene repositioning in breast and prostate cancer. Histochemistry and Cell Biology, 2016, 145, 433-446.	1.7	41

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55	3D Chromosome Regulatory Landscape of Human Pluripotent Cells. Cell Stem Cell, 2016, 18, 262-275.	11.1	369
56	High-throughput Imaging as a versatile and unbiased discovery tool. Methods, 2016, 96, 1-2.	3.8	4
57	Locus-specific gene repositioning in prostate cancer. Molecular Biology of the Cell, 2016, 27, 236-246.	2.1	32
58	A high-content imaging-based screening pipeline for the systematic identification of anti-progeroid compounds. Methods, 2016, 96, 46-58.	3.8	46
59	Gene expression analysis upon lncRNA DDSR1 knockdown in human fibroblasts. Genomics Data, 2015, 6, 277-279.	1.3	2
60	HIPMap: A High-Throughput Imaging Method for Mapping Spatial Gene Positions. Cold Spring Harbor Symposia on Quantitative Biology, 2015, 80, 73-81.	1.1	34
61	Inhibition of vemurafenib-resistant melanoma by interference with pre-mRNA splicing. Nature Communications, 2015, 6, 7103.	12.8	100
62	Genome-wide redistribution of BRD4 binding sites in transformation resistant cells. Genomics Data, 2015, 3, 33-35.	1.3	0
63	Long-Range Chromatin Interactions. Cold Spring Harbor Perspectives in Biology, 2015, 7, a019356.	5.5	215
64	Identification of Gene Positioning Factors Using High-Throughput Imaging Mapping. Cell, 2015, 162, 911-923.	28.9	170
65	Quantitative detection of rare interphase chromosome breaks and translocations by high-throughput imaging. Genome Biology, 2015, 16, 146.	8.8	18
66	Transformation Resistance in a Premature Aging Disorder Identifies a Tumor-Protective Function of BRD4. Cell Reports, 2014, 9, 248-260.	6.4	55
67	Systematic identification of pathological lamin A interactors. Molecular Biology of the Cell, 2014, 25, 1493-1510.	2.1	63
68	Progeria: A Paradigm for Translational Medicine. Cell, 2014, 156, 400-407.	28.9	230
69	Common features of chromatin in aging and cancer: cause or coincidence?. Trends in Cell Biology, 2014, 24, 686-694.	7.9	62
70	Spatial Dynamics of Chromosome Translocations in Living Cells. Science, 2013, 341, 660-664.	12.6	266
71	Functional implications of genome topology. Nature Structural and Molecular Biology, 2013, 20, 290-299.	8.2	382
72	Mapping of lamin A- and progerin-interacting genome regions. Chromosoma, 2012, 121, 447-464.	2.2	86

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73	The lamin protein family. Genome Biology, 2011, 12, 222.	9.6	392
74	In vitro generation of human cells with cancer stem cell properties. Nature Cell Biology, 2011, 13, 1051-1061.	10.3	122
75	Identification of differential protein interactors of lamin A and progerin. Nucleus, 2010, 1, 513-525.	2.2	81
76	Higher-order Genome Organization in Human Disease. Cold Spring Harbor Perspectives in Biology, 2010, 2, a000794-a000794.	5.5	202
77	Regulation of Alternative Splicing by Histone Modifications. Science, 2010, 327, 996-1000.	12.6	931
78	Ageing-related chromatin defects through loss of the NURD complex. Nature Cell Biology, 2009, 11, 1261-1267.	10.3	259
79	Disease-specific gene repositioning in breast cancer. Journal of Cell Biology, 2009, 187, 801-812.	5.2	126
80	Lamin A-dependent misregulation of adult stem cells associated with accelerated ageing. Nature Cell Biology, 2008, 10, 452-459.	10.3	465
81	Segmentation of Whole Cells and Cell Nuclei From 3-D Optical Microscope Images Using Dynamic Programming. IEEE Transactions on Medical Imaging, 2008, 27, 723-734.	8.9	44
82	The Meaning of Gene Positioning. Cell, 2008, 135, 9-13.	28.9	222
83	Allele-specific nuclear positioning of the monoallelically expressed astrocyte marker GFAP. Genes and Development, 2008, 22, 489-498.	5.9	136
84	On the Contribution of Spatial Genome Organization to Cancerous Chromosome Translocations. Journal of the National Cancer Institute Monographs, 2008, 2008, 16-19.	2.1	28
85	Locus-specific and activity-independent gene repositioning during early tumorigenesis. Journal of Cell Biology, 2008, 180, 39-50.	5.2	135
86	Functional association of Sun1 with nuclear pore complexes. Journal of Cell Biology, 2007, 178, 785-798.	5.2	202
87	Beyond the Sequence: Cellular Organization of Genome Function. Cell, 2007, 128, 787-800.	28.9	1,043
88	Distinct structural and mechanical properties of the nuclear lamina in Hutchinson-Gilford progeria syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10271-10276.	7.1	333
89	Lamin A-Dependent Nuclear Defects in Human Aging. Science, 2006, 312, 1059-1063.	12.6	1,058
90	Neural induction promotes large-scale chromatin reorganisation of the<i>Mash1</i>locus. Journal of Cell Science, 2006, 119, 132-140.	2.0	276

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91	Reversal of the cellular phenotype in the premature aging disease Hutchinson-Gilford progeria syndrome. Nature Medicine, 2005, 11, 440-445.	30.7	531
92	An uncertainty principle in chromosome positioning. Trends in Cell Biology, 2003, 13, 393-396.	7.9	65
93	Measurement of Dynamic Protein Binding to Chromatin In Vivo, Using Photobleaching Microscopy. Methods in Enzymology, 2003, 375, 393-414.	1.0	305
94	A Kinetic Framework for a Mammalian RNA Polymerase in Vivo. Science, 2002, 298, 1623-1626.	12.6	400
95	Protein Dynamics: Implications for Nuclear Architecture and Gene Expression. Science, 2001, 291, 843-847.	12.6	634
96	High mobility of proteins in the mammalian cell nucleus. Nature, 2000, 404, 604-609.	27.8	1,081
97	The dynamics of a pre-mRNA splicing factor in living cells. Nature, 1997, 387, 523-527.	27.8	563