Yosef Gruenbaum

List of Publications by Year
in descending order

112 papers	11,376 citations	31902 53 h-index	29081 104 g-index
199 all docs	199 docs citations	199 times ranked	8431 citing authors

#	Article	IF	Citations
1	Accumulation of mutant lamin A causes progressive changes in nuclear architecture in Hutchinsonâ€“Gilford progeria syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 8963-8968.	3.3	988
2	The nuclear lamina comes of age. Nature Reviews Molecular Cell Biology, 2005, 6, 21-31.	16.1	774
3	Sequence specificity of methylation in higher plant DNA. Nature, 1981, 292, 860-862.	13.7	727
4	Nuclear lamins: building blocks of nuclear architecture. Genes and Development, 2002, 16, 533-547.	2.7	505
5	Lamins: Nuclear Intermediate Filament Proteins with Fundamental Functions in Nuclear Mechanics and Genome Regulation. Annual Review of Biochemistry, 2015, 84, 131-164.	5.0	455
6	Substrate and sequence specificity of a eukaryotic DNA methylase. Nature, 1982, 295, 620-622.	13.7	448
7	Essential Roles for<i>Caenorhabditis elegans</i>Lamin Gene in Nuclear Organization, Cell Cycle Progression, and Spatial Organization of Nuclear Pore Complexes. Molecular Biology of the Cell, 2000, 11, 3937-3947.	0.9	378
8	Methylation of CpG sequences in eukaryotic DNA. FEBS Letters, 1981, 124, 67-71.	1.3	273
9	Age-related changes of nuclear architecture in Caenorhabditis elegans. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16690-16695.	3.3	271
10	Transcriptional repression, apoptosis, human disease and the functional evolution of the nuclear lamina. Trends in Biochemical Sciences, 2001, 26, 41-47.	3.7	247
11	Nuclear lamins: key regulators of nuclear structure and activities. Journal of Cellular and Molecular Medicine, 2009, 13, 1059-1085.	1.6	228
12	Nuclear Lamins: Thin Filaments with Major Functions. Trends in Cell Biology, 2018, 28, 34-45.	3.6	227
13	Translocation of C. elegans CED-4 to Nuclear Membranes During Programmed Cell Death. Science, 2000, 287, 1485-1489.	6.0	221
14	SUN-domain proteins: 'Velcro' that links the nucleoskeleton to the cytoskeleton. Nature Reviews Molecular Cell Biology, 2006, 7, 782-788.	16.1	218
15	The absence of detectable methylated bases inDrosophila melanogasterDNA. FEBS Letters, 1982, 146, 148-152.	1.3	206
16	MAN1 and emerin have overlapping function(s) essential for chromosome segregation and cell division in Caenorhabditis elegans. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 4598-4603.	3.3	195
17	The Nuclear Lamina and Its Functions in the Nucleus. International Review of Cytology, 2003, 226, 1-62.	6.2	192
18	Characteristic folding pattern of polytene chromosomes in Drosophila salivary gland nuclei. Nature, 1984, 308, 414-421.	13.7	188

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19	Review: Nuclear Laminsâ€”Structural Proteins with Fundamental Functions. Journal of Structural Biology, 2000, 129, 313-323.	1.3	184
20	Meiotic Chromosome Homology Search Involves Modifications of the Nuclear Envelope Protein Matefin/SUN-1. Cell, 2009, 139, 920-933.	13.5	181
21	The Nuclear Envelope Protein Matefin/SUN-1 Is Required for Homologous Pairing in C. elegans Meiosis. Developmental Cell, 2007, 12, 873-885.	3.1	166
22	<i>C. elegans</i>Nuclear Envelope Proteins Emerin, MAN1, Lamin, and Nucleoporins Reveal Unique Timing of Nuclear Envelope Breakdown during Mitosis. Molecular Biology of the Cell, 2000, 11, 3089-3099.	0.9	158
23	Lamin-dependent Localization of UNC-84, A Protein Required for Nuclear Migration inCaenorhabditis elegans. Molecular Biology of the Cell, 2002, 13, 892-901.	0.9	153
24	Nuclear lamins, diseases and aging. Current Opinion in Cell Biology, 2006, 18, 335-341.	2.6	153
25	Barrier-to-autointegration factor â€“ a BAFfling little protein. Trends in Cell Biology, 2007, 17, 202-208.	3.6	144
26	Barrier-to-autointegration factor is required to segregate and enclose chromosomes within the nuclear envelope and assemble the nuclear lamina. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 3290-3295.	3.3	130
27	An EDMD Mutation in C.Âelegans Lamin Blocks Muscle-Specific Gene Relocation and Compromises Muscle Integrity. Current Biology, 2011, 21, 1603-1614.	1.8	125
28	The Supramolecular Organization of the C. elegans Nuclear Lamin Filament. Journal of Molecular Biology, 2009, 386, 1392-1402.	2.0	124
29	High CO2 Levels Impair Alveolar Epithelial Function Independently of pH. PLoS ONE, 2007, 2, e1238.	1.1	108
30	Biotinylation by antibody recognitionâ€”a method for proximity labeling. Nature Methods, 2018, 15, 127-133.	9.0	107
31	Laminopathic mutations interfere with the assembly, localization, and dynamics of nuclear lamins. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 180-185.	3.3	105
32	Breaking and making of the nuclear envelope. Journal of Cellular Biochemistry, 2005, 95, 454-465.	1.2	94
33	Elevated CO₂suppresses specific Drosophila innate immune responses and resistance to bacterial infection. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18710-18715.	3.3	94
34	Lamins: the structure and protein complexes. Current Opinion in Cell Biology, 2015, 32, 7-12.	2.6	89
35	Invertebrate lamins. Experimental Cell Research, 2007, 313, 2157-2166.	1.2	88
36	Matefin, a Caenorhabditis elegans germ line-specific SUN-domain nuclear membrane protein, is essential for early embryonic and germ cell development. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6987-6992.	3.3	82

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37	The Nuclear Lamina: Molecular Organization and Interaction with Chromatin. Critical Reviews in Eukaryotic Gene Expression, 1999, 9, 285-293.	0.4	81
38	Repression of ferritin expression increases the labile iron pool, oxidative stress, and short-term growth of human erythroleukemia cells. Blood, 2001, 97, 2863-2871.	0.6	80
39	Hutchinsonâ€“Gilford progeria syndrome through the lens of transcription. Aging Cell, 2013, 12, 533-543.	3.0	76
40	Gone with the Wnt/Notch: stem cells in laminopathies, progeria, and aging. Journal of Cell Biology, 2008, 181, 9-13.	2.3	75
41	Leptotene/Zygotene Chromosome Movement Via the SUN/KASH Protein Bridge in Caenorhabditis elegans. PLoS Genetics, 2010, 6, e1001219.	1.5	72
42	Interactions among <i>Drosophila</i> Nuclear Envelope Proteins Lamin, Otefin, and YA. Molecular and Cellular Biology, 1998, 18, 4315-4323.	1.1	69
43	The expression, lamin-dependent localization and RNAi depletion phenotype for emerin in<i>C. elegans</i>. Journal of Cell Science, 2002, 115, 923-929.	1.2	69
44	The nuclear lamina and its proposed roles in tumorigenesis: Projection on the hematologic malignancies and future targeted therapy. Journal of Structural Biology, 2006, 155, 351-360.	1.3	68
45	Nuclear envelope assembly around sperm chromatin in cell-free preparations from Drosophila embryos. FEBS Letters, 1989, 259, 113-116.	1.3	65
46	Specific and conserved sequences in D. melanogaster and C. elegans lamins and histone H2A mediate the attachment of lamins to chromosomes. Journal of Cell Science, 2007, 120, 77-85.	1.2	65
47	The expression, lamin-dependent localization and RNAi depletion phenotype for emerin in C. elegans. Journal of Cell Science, 2002, 115, 923-9.	1.2	64
48	Lamins in development, tissue maintenance and stress. EMBO Reports, 2012, 13, 1070-1078.	2.0	61
49	Elevated CO ₂ levels affect development, motility, and fertility and extend life span in <i>Caenorhabditis elegans</i>. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4024-4029.	3.3	60
50	Barrier to autointegration factor blocks premature cell fusion and maintains adult muscle integrity in C. elegans. Journal of Cell Biology, 2007, 178, 661-673.	2.3	58
51	A laminopathic mutation disrupting lamin filament assembly causes disease-like phenotypes in<i>Caenorhabditis elegans</i>. Molecular Biology of the Cell, 2011, 22, 2716-2728.	0.9	58
52	Transmission electron microscope studies of the nuclear envelope in Caenorhabditis elegans embryos. Journal of Structural Biology, 2002, 140, 232-240.	1.3	57
53	Solubility properties and specific assembly pathways of the B-type lamin from Caenorhabditis elegans. Journal of Structural Biology, 2006, 155, 340-350.	1.3	57
54	Nuclear Pore Protein gp210 Is Essential for Viability in HeLa Cells and Caenorhabditis elegans. Molecular Biology of the Cell, 2003, 14, 4230-4237.	0.9	56

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55	Cell size and fat content of dietary-restricted <i>Caenorhabditis elegans</i> are regulated by ATX-2, an mTOR repressor. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4620-9.	3.3	56
56	Binding of matrix attachment regions to nuclear lamin is mediated by the rod domain and depends on the lamin polymerization state. FEBS Letters, 1996, 380, 161-164.	1.3	54
57	Repression of the heavy ferritin chain increases the labile iron pool of human K562 cells. Biochemical Journal, 2001, 356, 311-316.	1.7	43
58	Matefin/SUN-1 is a nuclear envelope receptor for CED-4 during Caenorhabditis elegans apoptosis. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13397-13402.	3.3	43
59	LEM-3 â€“ A LEM Domain Containing Nuclease Involved in the DNA Damage Response in C. elegans. PLoS ONE, 2012, 7, e24555.	1.1	43
60	Evolutionary Conserved Role of c-Jun-N-Terminal Kinase in CO2-Induced Epithelial Dysfunction. PLoS ONE, 2012, 7, e46696.	1.1	42
61	Sensing, physiological effects and molecular response to elevated CO₂levels in eukaryotes. Journal of Cellular and Molecular Medicine, 2009, 13, 4304-4318.	1.6	41
62	The nuclear lamina and heterochromatin: a complex relationship. Biochemical Society Transactions, 2011, 39, 1705-1709.	1.6	40
63	Ce-emerin and LEM-2: essential roles in<i>Caenorhabditis elegans</i>development, muscle function, and mitosis. Molecular Biology of the Cell, 2012, 23, 543-552.	0.9	40
64	Intermediate filaments: a dynamic network that controls cell mechanics. F1000prime Reports, 2014, 6, 54.	5.9	39
65	Ferritin expression modulates cell cycle dynamics and cell responsiveness to H-ras-induced growth via expansion of the labile iron pool. Biochemical Journal, 2002, 363, 431-436.	1.7	38
66	A chicken homeo box gene with developmentally regulated expression. FEBS Letters, 1989, 250, 381-385.	1.3	36
67	Filaments assembly of ectopically expressed Caenorhabditis elegans lamin within Xenopus oocytes. Journal of Structural Biology, 2012, 177, 113-118.	1.3	36
68	Structural and physiological phenotypes of disease-linked lamin mutations in C. elegans. Journal of Structural Biology, 2012, 177, 106-112.	1.3	35
69	Molecular analysis of the Drosophila nuclear lamin gene. Genomics, 1990, 8, 217-224.	1.3	31
70	Loss of MTX2 causes mandibuloacral dysplasia and links mitochondrial dysfunction to altered nuclear morphology. Nature Communications, 2020, 11, 4589.	5.8	30
71	High CO₂ Leads to Na,K-ATPase Endocytosis via c-Jun Amino-Terminal Kinase-Induced LMO7b Phosphorylation. Molecular and Cellular Biology, 2015, 35, 3962-3973.	1.1	29
72	A Lamin-Dependent Pathway That Regulates Nuclear Organization, Cell Cycle Progression and Germ Cell Development. Novartis Foundation Symposium, 2008, , 231-245.	1.2	28

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73	Impaired mechanical response of an EDMD mutation leads to motility phenotypes that are repaired by loss of prenylation. Journal of Cell Science, 2016, 129, 1781-91.	1.2	26
74	Synchronization of Interphase Events Depends neither on Mitosis nor on cdk1. Molecular Biology of the Cell, 2003, 14, 3730-3740.	0.9	25
75	<i>Caenorhabditis elegans</i>as a model system for studying the nuclear lamina and laminopathic diseases. Nucleus, 2011, 2, 350-357.	0.6	25
76	Elevated CO2 regulates the Wnt signaling pathway in mammals, Drosophila melanogaster and Caenorhabditis elegans. Scientific Reports, 2019, 9, 18251.	1.6	24
77	A lamin-dependent pathway that regulates nuclear organization, cell cycle progression and germ cell development. Novartis Foundation Symposium, 2005, 264, 231-40; discussion 240-5.	1.2	23
78	Lamins and metabolism. Clinical Science, 2017, 131, 105-111.	1.8	19
79	Reversal of age-dependent nuclear morphology by inhibition of prenylation does not affect lifespan in<i>Caenorhabditis elegans</i>. Nucleus, 2010, 1, 499-505.	0.6	18
80	BAF-1 mobility is regulated by environmental stresses. Molecular Biology of the Cell, 2014, 25, 1127-1136.	0.9	18
81	The twoXenopus Gbx2genes exhibit similar, but not identical expression patterns and can affect head formation. FEBS Letters, 2001, 507, 205-209.	1.3	17
82	Gliotoxin reverses ageâ€dependent nuclear morphology phenotypes, ameliorates motility, but fails to affect lifespan of adult <i>Caenorhabditis elegans</i>. Cytoskeleton, 2009, 66, 791-797.	4.4	16
83	The physiological and molecular effects of elevated CO₂levels. Cell Cycle, 2010, 9, 1528-1532.	1.3	16
84	Studying Lamins in Invertebrate Models. Advances in Experimental Medicine and Biology, 2014, 773, 245-262.	0.8	15
85	Lamin-Binding Proteins in Caenorhabditis elegans. Methods in Enzymology, 2016, 569, 455-483.	0.4	15
86	Matefin/SUN-1 Phosphorylation on Serine 43 Is Mediated by CDK-1 and Required for Its Localization to Centrosomes and Normal Mitosis in C. elegans Embryos. Cells, 2016, 5, 8.	1.8	14
87	OGT (O-GlcNAc Transferase) Selectively Modifies Multiple Residues Unique to Lamin A. Cells, 2018, 7, 44.	1.8	14
88	Measuring nucleus mechanics within a living multicellular organism: Physical decoupling and attenuated recovery rate are physiological protective mechanisms of the cell nucleus under high mechanical load. Molecular Biology of the Cell, 2020, 31, 1943-1950.	0.9	14
89	Gene transfer in plant protoplasts Inhibition of gene activity by cytosine methylation and expression of single-stranded DNA constructs. FEBS Letters, 1989, 253, 167-172.	1.3	12
90	Invertebrate models of lamin diseases. Nucleus, 2018, 9, 227-234.	0.6	12

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91	141st ENMC International Workshop Inaugural Meeting of the EURO-Laminopathies Project Nuclear Envelope-linked Rare Human Diseases: From Molecular Pathophysiology towards Clinical Applications 10â€“12 March 2006, Naarden, The Netherlands. Neuromuscular Disorders, 2007, 17, 655-660.	0.3	11
92	Chapter 21 Electron Microscopy of Lamin and the Nuclear Lamina in Caenorhabditis elegans. Methods in Cell Biology, 2008, 88, 411-429.	0.5	11
93	Fate of the Nuclear Lamina during Caenorhabditis elegans Apoptosis. Journal of Structural Biology, 2002, 137, 146-153.	1.3	10
94	NURD keeps chromatin young. Nature Cell Biology, 2009, 11, 1176-1177.	4.6	10
95	The Response to High CO2 Levels Requires the Neuropeptide Secretion Component HID-1 to Promote Pumping Inhibition. PLoS Genetics, 2014, 10, e1004529.	1.5	9
96	Nuclear Morphology: When Round Kernels Do the Charleston. Current Biology, 2006, 16, R195-R197.	1.8	8
97	Rejuvenating premature aging. Nature Medicine, 2008, 14, 713-715.	15.2	8
98	Global transcriptional changes caused by an EDMD mutation correlate to tissue specific disease phenotypes inC. elegans. Nucleus, 2017, 8, 60-69.	0.6	8
99	Intermediate Filaments in Caenorhabditis elegans. Methods in Enzymology, 2016, 568, 661-679.	0.4	7
100	The assembly of C. elegans lamins into macroscopic fibers. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 63, 35-43.	1.5	6
101	Addendum: Biotinylation by antibody recognitionâ€"a method for proximity labeling. Nature Methods, 2018, 15, 749-749.	9.0	6
102	CHox-cad locus may influence quantitative traits in chickens. The Journal of Experimental Zoology, 1992, 263, 303-308.	1.4	5
103	Nuclear Organization. Annual Review of Biochemistry, 2015, 84, 61-64.	5.0	5
104	Intermediate Filaments in Caenorhabditis elegans. Methods in Cell Biology, 2004, 78, 703-718.	0.5	3
105	Measuring the effects of high CO2 levels in Caenorhabditis elegans. Methods, 2014, 68, 487-491.	1.9	3
106	Small GTPases in C. elegans metabolism. Small GTPases, 2018, 9, 415-419.	0.7	2
107	The curious case of the ageing cells. Nature Reviews Molecular Cell Biology, 2009, 10, 242-242.	16.1	1
108	Pharyngeal pumping inhibition and avoidance by acute exposure to high CO2levels are both regulated by the BAG neurons via different molecular pathways. Worm, 2015, 4, e1008898.	1.0	1

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109	Exploring the nuclear lamina in health and pathology using C. elegans. Current Topics in Developmental Biology, 2021, 144, 91-110.	1.0	1
110	Nuclear lamins: key regulators of nuclear structure and activities. Journal of Cellular and Molecular Medicine, 2009, 13, 1059-1085.	1.6	1
111	Exploring the nuclear envelope's properties and roles. BioEssays, 2004, 26, 814-826.	1.2	0
112	Nuclear Envelope Breakdown and Reassembly in C. elegans. , 2002, , 103-110.		0