Nancy Kleckner

List of Publications by Year in Descending Order

54 papers	4,712 citations	26 h-index	57 g-index
57 ext. papers	5,799 ext. citations	17.4 avg, IF	5.87 L-index

#	Paper	IF	Citations
54	Meiotic chromosome organization and crossover patterns.. *Biology of Reproduction*, **2022**,	3.9	1
53	Sister chromatids separate during anaphase in a three-stage program as directed by interaxis bridges.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2123363119	11.5	0
52	Per-nucleus crossover covariation is regulated by chromosome organization.. *IScience*, **2022**, 25, 104115	6.1	0
51	The ubiquitin-proteasome system regulates meiotic chromosome organization.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2106902119	11.5	0
50	MEIOK21 regulates oocyte quantity and quality via modulating meiotic recombination.. *FASEB Journal*, **2022**, 36, e22357	0.9	
49	High Temporal Resolution 3D Live-Cell Imaging of Budding Yeast Meiosis Defines Discontinuous Actin/Telomere-Mediated Chromosome Motion, Correlated Nuclear Envelope Deformation and Actin Filament Dynamics.. *Frontiers in Cell and Developmental Biology*, **2021**, 9, 687132	5.7	0
48	Interplay between Pds5 and Rec8 in regulating chromosome axis length and crossover frequency. *Science Advances*, **2021**, 7,	14.3	9
47	Single-Particle Studies Reveal a Nanoscale Mechanism for Elastic, Bright, and Repeatable ZnS:Mn Mechanoluminescence in a Low-Pressure Regime. *ACS Nano*, **2021**, 15, 4115-4133	16.7	8
46	ESA1 regulates meiotic chromosome axis and crossover frequency via acetylating histone H4. *Nucleic Acids Research*, **2021**, 49, 9353-9373	20.1	5
45	Evolution of crossover interference enables stable autopolyploidy by ensuring pairwise partner connections in Arabidopsis arenosa. *Current Biology*, **2021**, 31, 4713-4726.e4	6.3	4
44	Crossover patterns under meiotic chromosome program. *Asian Journal of Andrology*, **2021**, 23, 562-571	2.8	11
43	RNA-DNA hybrids regulate meiotic recombination. *Cell Reports*, **2021**, 37, 110097	10.6	2
42	General quantitative relations linking cell growth and the cell cycle in Escherichia coli. *Nature Microbiology*, **2020**, 5, 995-1001	26.6	25
41	MEIOK21: a new component of meiotic recombination bridges required for spermatogenesis. *Nucleic Acids Research*, **2020**, 48, 6624-6639	20.1	10
40	The 3D Topography of Mitotic Chromosomes. *Molecular Cell*, **2020**, 79, 902-916.e6	17.6	13
39	Building bridges to move recombination complexes. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 12400-12409	11.5	21
38	Per-Nucleus Crossover Covariation and Implications for Evolution. *Cell*, **2019**, 177, 326-338.e16	56.2	36

37	Crossover Interference, Crossover Maturation, and Human Aneuploidy. *BioEssays*, **2019**, 41, e1800221	4.1	15
36	Recruitment of Rec8, Pds5 and Rad61/Wapl to meiotic homolog pairing, recombination, axis formation and S-phase. *Nucleic Acids Research*, **2019**, 47, 11691-11708	20.1	16
35	A rigorous measure of genome-wide genetic shuffling that takes into account crossover positions and Mendel's second law. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 1659-1668	11.5	21
34	Protect chromosomes from end-to-end fusion during meiotic bouquet. *Science China Life Sciences*, **2018**, 61, 736-738	8.5	0
33	Inefficient Crossover Maturation Underlies Elevated Aneuploidy in Human Female Meiosis. *Cell*, **2017**, 168, 977-989.e17	56.2	77
32	DNA sequence homology induces cytosine-to-thymine mutation by a heterochromatin-related pathway in Neurospora. *Nature Genetics*, **2017**, 49, 887-894	36.3	22
31	Quantitative Modeling and Automated Analysis of Meiotic Recombination. *Methods in Molecular Biology*, **2017**, 1471, 305-323	1.4	14
30	Single molecule identification of homology-dependent interactions between long ssRNA and dsDNA. *Nucleic Acids Research*, **2017**, 45, 894-901	20.1	1
29	Asy2/Mer2: an evolutionarily conserved mediator of meiotic recombination, pairing, and global chromosome compaction. *Genes and Development*, **2017**, 31, 1880-1893	12.6	39
28	Recombination-independent recognition of DNA homology for repeat-induced point mutation. *Current Genetics*, **2017**, 63, 389-400	2.9	25
27	The challenge of evolving stable polyploidy: could an increase in "crossover interference distance" play a central role?. *Chromosoma*, **2016**, 125, 287-300	2.8	63
26	A few of our favorite things: Pairing, the bouquet, crossover interference and evolution of meiosis. *Seminars in Cell and Developmental Biology*, **2016**, 54, 135-48	7.5	79
25	Recombination-Independent Recognition of DNA Homology for Repeat-Induced Point Mutation (RIP) Is Modulated by the Underlying Nucleotide Sequence. *PLoS Genetics*, **2016**, 12, e1006015	6	19
24	Meiotic prophase roles of Rec8 in crossover recombination and chromosome structure. *Nucleic Acids Research*, **2016**, 44, 9296-9314	20.1	32
23	Questions and Assays. *Genetics*, **2016**, 204, 1343-1349	4	4
22	Recombination, Pairing, and Synapsis of Homologs during Meiosis. *Cold Spring Harbor Perspectives in Biology*, **2015**, 7,	10.2	385
21	Chromosomes Progress to Metaphase in Multiple Discrete Steps via Global Compaction/Expansion Cycles. *Cell*, **2015**, 161, 1124-1137	56.2	76
20	Meiotic crossover patterns: obligatory crossover, interference and homeostasis in a single process. *Cell Cycle*, **2015**, 14, 305-14	4.7	86

19	Topoisomerase II mediates meiotic crossover interference. *Nature*, **2014**, 511, 551-6	50.4	110
18	Protein-mediated chromosome pairing of repetitive arrays. *Journal of Molecular Biology*, **2014**, 426, 550-7	4.5	8
17	Direct recognition of homology between double helices of DNA in Neurospora crassa. *Nature Communications*, **2014**, 5, 3509	17.4	57
16	Crossover patterning by the beam-film model: analysis and implications. *PLoS Genetics*, **2014**, 10, e1004042	8.2	84
15	The bacterial nucleoid: nature, dynamics and sister segregation. *Current Opinion in Microbiology*, **2014**, 22, 127-37	7.9	59
14	E3 ligase Hei10: a multifaceted structure-based signaling molecule with roles within and beyond meiosis. *Genes and Development*, **2014**, 28, 1111-23	12.6	53
13	Meiotic Chromosome Dynamics **2011**, 487-533		7
12	Mesoscale spatial patterning in the Escherichia coli Min system: reaction-diffusion versus mechanical communication. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 8053-4	11.5	2
11	Recombination proteins mediate meiotic spatial chromosome organization and pairing. *Cell*, **2010**, 141, 94-106	56.2	111
10	Coupling meiotic chromosome axis integrity to recombination. *Genes and Development*, **2008**, 22, 796-809	12.6	58
9	Meiotic recombination-related DNA synthesis and its implications for cross-over and non-cross-over recombinant formation. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 5965-70	11.5	49
8	Chiasma formation: chromatin/axis interplay and the role(s) of the synaptonemal complex. *Chromosoma*, **2006**, 115, 175-94	2.8	229
7	A mechanical basis for chromosome function. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 12592-7	11.5	239
6	Crossover/noncrossover differentiation, synaptonemal complex formation, and regulatory surveillance at the leptotene/zygotene transition of meiosis. *Cell*, **2004**, 117, 29-45	56.2	531
5	Coordinate variation in meiotic pachytene SC length and total crossover/chiasma frequency under conditions of constant DNA length. *Trends in Genetics*, **2003**, 19, 623-8	8.5	98
4	Physical and functional interactions among basic chromosome organizational features govern early steps of meiotic chiasma formation. *Cell*, **2002**, 111, 791-802	56.2	279
3	Meiosis-specific DNA double-strand breaks are catalyzed by Spo11, a member of a widely conserved protein family. *Cell*, **1997**, 88, 375-84	56.2	1316
2	Saccharomyces cerevisiae recA homologues RAD51 and DMC1 have both distinct and overlapping roles in meiotic recombination. *Genes To Cells*, **1997**, 2, 615-29	2.3	154

1	Communication between homologous chromosomes: genetic alterations at a nuclease-hypersensitive site can alter mitotic chromatin structure at that site both in cis and in trans. *Genes To Cells*, **1996**, 1, 475-89	2.3	66