Gerald R Smith

List of Publications by Year
in descending order

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112 papers	7,226 citations	53939 47 h-index	75989 78 g-index
119 all docs	119 docs citations	119 times ranked	3805 citing authors

#	Article	IF	Citations
1	Dynamic configurations of meiotic DNA-break hotspot determinant proteins. Journal of Cell Science, 2022, 135, .	1.2	2
2	Redirecting meiotic DNA break hotspot determinant proteins alters localized spatial control of DNA break formation and repair. Nucleic Acids Research, 2022, 50, 899-914.	6.5	3
3	Meiotic chromosome organization and its role in recombination and cancer. Current Topics in Developmental Biology, 2022, , .	1.0	1
4	Activation of meiotic recombination by nuclear import of the DNA break hotspot-determining complex in fission yeast. Journal of Cell Science, 2021, 134, .	1.2	5
5	Small-molecule sensitization of RecBCD helicaseâ€“nuclease to a Chi hotspot-activated state. Nucleic Acids Research, 2020, 48, 7973-7980.	6.5	5
6	Chi hotspot control of RecBCD helicase-nuclease by long-range intramolecular signaling. Scientific Reports, 2020, 10, 19415.	1.6	8
7	New Solutions to Old Problems: Molecular Mechanisms of Meiotic Crossover Control. Trends in Genetics, 2020, 36, 337-346.	2.9	20
8	Distributing meiotic crossovers for optimal fertility and evolution. DNA Repair, 2019, 81, 102648.	1.3	18
9	The RecB helicase-nuclease tether mediates Chi hotspot control of RecBCD enzyme. Nucleic Acids Research, 2019, 47, 197-209.	6.5	17
10	Physical basis for long-distance communication along meiotic chromosomes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9333-E9342.	3.3	29
11	Pericentromere-Specific Cohesin Complex Prevents Meiotic Pericentric DNA Double-Strand Breaks and Lethal Crossovers. Molecular Cell, 2018, 71, 540-553.e4.	4.5	35
12	Functional organization of protein determinants of meiotic DNA break hotspots. Scientific Reports, 2017, 7, 1393.	1.6	8
13	Quantitative Genome-Wide Measurements of Meiotic DNA Double-Strand Breaks and Protein Binding in S. pombe. Methods in Molecular Biology, 2017, 1471, 25-49.	0.4	0
14	wtf genes are prolific dual poison-antidote meiotic drivers. ELife, 2017, 6, .	2.8	106
15	RecBCD Enzyme â€œChi Recognitionâ€•Mutants Recognize Chi Recombination Hotspots in the Right DNA Context. Genetics, 2016, 204, 139-152.	1.2	17
16	Unexpected DNA context-dependence identifies a new determinant of Chi recombination hotspots. Nucleic Acids Research, 2016, 44, 8216-8228.	6.5	17
17	Repression of harmful meiotic recombination in centromeric regions. Seminars in Cell and Developmental Biology, 2016, 54, 188-197.	2.3	91
18	Dbl2 Regulates Rad51 and DNA Joint Molecule Metabolism to Ensure Proper Meiotic Chromosome Segregation. PLoS Genetics, 2016, 12, e1006102.	1.5	8

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19	Two separable functions of Ctp1 in the early steps of meiotic DNA double-strand break repair. Nucleic Acids Research, 2015, 43, 7349-7359.	6.5	14
20	Casein Kinase 1 and Phosphorylation of Cohesin Subunit Rec11 (SA3) Promote Meiotic Recombination through Linear Element Formation. PLoS Genetics, 2015, 11, e1005225.	1.5	45
21	Synchronized fission yeast meiosis using an ATP analogâ€“sensitive Pat1 protein kinase. Nature Protocols, 2014, 9, 223-231.	5.5	17
22	DNA intermediates of meiotic recombination in synchronous S. pombe at optimal temperature. Nucleic Acids Research, 2014, 42, 359-369.	6.5	11
23	Control of RecBCD Enzyme Activity by DNA Binding- and Chi Hotspot-Dependent Conformational Changes. Journal of Molecular Biology, 2014, 426, 3479-3499.	2.0	38
24	Evolutionarily diverse determinants of meiotic DNA break and recombination landscapes across the genome. Genome Research, 2014, 24, 1650-1664.	2.4	92
25	Genome rearrangements and pervasive meiotic drive cause hybrid infertility in fission yeast. ELife, 2014, 3, e02630.	2.8	99
26	Protein Determinants of Meiotic DNA Break Hot Spots. Molecular Cell, 2013, 49, 983-996.	4.5	49
27	Making chromosomes hot for breakage. Cell Cycle, 2013, 12, 1327-1328.	1.3	7
28	ATP analog-sensitive Pat1 protein kinase for synchronous fission yeast meiosis at physiological temperature. Cell Cycle, 2012, 11, 1626-1633.	1.3	36
29	Meiotic DNA joint molecule resolution depends on Nse5-Nse6 of the Smc5-Smc6 holocomplex. Nucleic Acids Research, 2012, 40, 9633-9646.	6.5	40
30	Small-Molecule Inhibitors of Bacterial AddAB and RecBCD Helicase-Nuclease DNA Repair Enzymes. ACS Chemical Biology, 2012, 7, 879-891.	1.6	35
31	How RecBCD Enzyme and Chi Promote DNA Break Repair and Recombination: a Molecular Biologist's View. Microbiology and Molecular Biology Reviews, 2012, 76, 217-228.	2.9	147
32	New and old ways to control meiotic recombination. Trends in Genetics, 2011, 27, 411-421.	2.9	54
33	Elimination of a specific histone H3K14 acetyltransferase complex bypasses the RNAi pathway to regulate pericentric heterochromatin functions. Genes and Development, 2011, 25, 214-219.	2.7	55
34	Functional interactions of Rec24, the fission yeast ortholog of mouse Mei4, with the meiotic recombinationâ€“initiation complex. Journal of Cell Science, 2011, 124, 1328-1338.	1.2	22
35	RNAi and heterochromatin repress centromeric meiotic recombination. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 8701-8705.	3.3	96
36	Crossover Invariance Determined by Partner Choice for Meiotic DNA Break Repair. Cell, 2010, 142, 243-255.	13.5	73

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37	Meiotic DNA Double-Strand Break Repair Requires Two Nucleases, MRN and Ctp1, To Produce a Single Size Class of Rec12 (Spo11)-Oligonucleotide Complexes. Molecular and Cellular Biology, 2009, 29, 5998-6005.	1.1	88
38	Ctp1 and Exonuclease 1, alternative nucleases regulated by the MRN complex, are required for efficient meiotic recombination. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 9356-9361.	3.3	48
39	Dual Nuclease and Helicase Activities of Helicobacter pylori AddAB Are Required for DNA Repair, Recombination, and Mouse Infectivity. Journal of Biological Chemistry, 2009, 284, 16759-16766.	1.6	28
40	Using Schizosaccharomyces pombe Meiosis to Analyze DNA Recombination Intermediates. Methods in Molecular Biology, 2009, 557, 235-252.	0.4	28
41	Genetic Analysis of Meiotic Recombination in Schizosaccharomyces pombe. Methods in Molecular Biology, 2009, 557, 65-76.	0.4	43
42	Helicobacter pylori AddAB helicaseâ€nuclease and RecA promote recombinationâ€related DNA repair and survival during stomach colonization. Molecular Microbiology, 2008, 69, 994-1007.	1.2	91
43	Rec25 and Rec27, Novel Linear-Element Components, Link Cohesin to Meiotic DNA Breakage and Recombination. Current Biology, 2008, 18, 849-854.	1.8	50
44	RecQ Helicase, Sgs1, and XPF Family Endonuclease, Mus81-Mms4, Resolve Aberrant Joint Molecules during Meiotic Recombination. Molecular Cell, 2008, 31, 324-336.	4.5	156
45	The Fission Yeast BLM Homolog Rqh1 Promotes Meiotic Recombination. Genetics, 2008, 179, 1157-1167.	1.2	29
46	Indistinguishable Landscapes of Meiotic DNA Breaks in rad50+ and rad50S Strains of Fission Yeast Revealed by a Novel rad50+ Recombination Intermediate. PLoS Genetics, 2008, 4, e1000267.	1.5	26
47	Meiotic Recombination in Schizosaccharomyces pombe: AÂParadigm for Genetic and Molecular Analysis. Genome Dynamics and Stability, 2008, 3, 195-230.	1.1	25
48	Intersubunit signaling in RecBCD enzyme, a complex protein machine regulated by Chi hot spots. Genes and Development, 2007, 21, 3296-3307.	2.7	34
49	A Discrete Class of Intergenic DNA Dictates Meiotic DNA Break Hotspots in Fission Yeast. PLoS Genetics, 2007, 3, e141.	1.5	82
50	Chi Hotspot Activity in Escherichia coli Without RecBCD Exonuclease Activity: Implications for the Mechanism of Recombination. Genetics, 2007, 175, 41-54.	1.2	18
51	BLM Ortholog, Sgs1, Prevents Aberrant Crossing-over by Suppressing Formation of Multichromatid Joint Molecules. Cell, 2007, 130, 259-272.	13.5	272
52	Branching out: meiotic recombination and its regulation. Trends in Cell Biology, 2007, 17, 448-455.	3.6	59
53	Single Holliday Junctions Are Intermediates of Meiotic Recombination. Cell, 2006, 127, 1167-1178.	13.5	178
54	The Meiotic Bouquet Promotes Homolog Interactions and Restricts Ectopic Recombination in Schizosaccharomyces pombe. Genetics, 2006, 174, 167-177.	1.2	41

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55	A Large-Scale Screen in S. pombe Identifies Seven Novel Genes Required for Critical Meiotic Events. Current Biology, 2005, 15, 2056-2062.	1.8	106
56	Cohesins are required for meiotic DNA breakage and recombination in Schizosaccharomyces pombe. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10952-10957.	3.3	80
57	Natural Meiotic Recombination Hot Spots in the Schizosaccharomyces pombe Genome Successfully Predicted from the Simple Sequence Motif M26. Molecular and Cellular Biology, 2005, 25, 9054-9062.	1.1	49
58	A Meiosis-Specific Cyclin Regulated by Splicing Is Required for Proper Progression through Meiosis. Molecular and Cellular Biology, 2005, 25, 6330-6337.	1.1	47
59	Activation of an Alternative, Rec12 (Spo11)-Independent Pathway of Fission Yeast Meiotic Recombination in the Absence of a DNA Flap Endonuclease. Genetics, 2005, 171, 1499-1511.	1.2	26
60	A Natural Meiotic DNA Break Site in Schizosaccharomyces pombe Is a Hotspot of Gene Conversion, Highly Associated With Crossing Over. Genetics, 2005, 169, 595-605.	1.2	48
61	Dynein Promotes Achiasmate Segregation in Schizosaccharomyces pombe. Genetics, 2005, 170, 581-590.	1.2	26
62	A Novel Recombination Pathway Initiated by the Mre11/Rad50/Nbs1 Complex Eliminates Palindromes During Meiosis in Schizosaccharomyces pombe. Genetics, 2005, 169, 1261-1274.	1.2	52
63	Optimizing the Nucleotide Sequence of a Meiotic Recombination Hotspot in Schizosaccharomyces pombe. Genetics, 2005, 169, 1973-1983.	1.2	44
64	Swi5 Acts in Meiotic DNA Joint Molecule Formation in Schizosaccharomyces pombe. Genetics, 2004, 168, 1891-1898.	1.2	50
65	Conserved and Nonconserved Proteins for Meiotic DNA Breakage and Repair in Yeasts. Genetics, 2004, 167, 593-605.	1.2	106
66	How Homologous Recombination Is Initiated. Cell, 2004, 117, 146-148.	13.5	25
67	RecBCD enzyme is a DNA helicase with fast and slow motors of opposite polarity. Nature, 2003, 423, 889-893.	13.7	200
68	Interchangeable Parts of the Escherichia coli Recombination Machinery. Cell, 2003, 112, 741-744.	13.5	91
69	Nonrandom Homolog Segregation at Meiosis I in Schizosaccharomyces pombe Mutants Lacking Recombination. Genetics, 2003, 163, 857-874.	1.2	70
70	Fission Yeast Mus81Â·Eme1 Holliday Junction Resolvase Is Required for Meiotic Crossing Over but Not for Gene Conversion. Genetics, 2003, 165, 2289-2293.	1.2	114
71	DNA Unwinding Step-size of E.coli RecBCD Helicase Determined from Single Turnover Chemical Quenched-flow Kinetic Studies. Journal of Molecular Biology, 2002, 324, 409-428.	2.0	87
72	Meiotic Recombination Remote from Prominent DNA Break Sites in S. pombe. Molecular Cell, 2002, 9, 253-263.	4.5	119

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73	Meiotic DNA Breaks at the S. pombe Recombination Hot Spot M26. Molecular Cell, 2002, 9, 847-855.	4.5	86
74	A 160-bp Palindrome Is a Rad50Â·Rad32-Dependent Mitotic Recombination Hotspot inSchizosaccharomyces pombe. Genetics, 2002, 161, 461-468.	1.2	65
75	A Domain of RecC Required for Assembly of the Regulatory RecD Subunit Into the Escherichia coli RecBCD Holoenzyme. Genetics, 2002, 161, 483-492.	1.2	19
76	Maximal Power Tests for Detecting Defects in Meiotic Recombination. Genetics, 2002, 161, 1333-1337.	1.2	0
77	Homologous Recombination Near and Far from DNA Breaks: Alternative Roles and Contrasting Views. Annual Review of Genetics, 2001, 35, 243-274.	3.2	117
78	Counteracting Regulation of Chromatin Remodeling at a Fission Yeast cAMP Responsive Element-Related Recombination Hotspot by Stress-Activated Protein Kinase, cAMP-Dependent Kinase and Meiosis Regulators. Genetics, 2001, 159, 1467-1478.	1.2	32
79	Meiotic DNA Breaks Associated with Recombination in S. pombe. Molecular Cell, 2000, 5, 883-888.	4.5	194
80	A Family of cAMP-Response-Element-Related DNA Sequences With Meiotic Recombination Hotspot Activity in Schizosaccharomyces pombe. Genetics, 2000, 156, 59-68.	1.2	45
81	Genomics, Chi sites and codons: `islands of preferred DNA pairing' are oceans of ORFs. Trends in Genetics, 1998, 14, 485-488.	2.9	33
82	A stimulatory RNA associated with RecBCD enzyme. Nucleic Acids Research, 1998, 26, 2125-2131.	6.5	6
83	Control of Meiotic Recombination in Schizosaccharomyces pombe. Progress in Molecular Biology and Translational Science, 1998, 61, 345-378.	1.9	49
84	The RecBCD enzyme initiation complex for DNA unwinding: enzyme positioning and DNA opening. Journal of Molecular Biology, 1997, 272, 699-715.	2.0	56
85	Regionâ€specific meiotic recombination in Schizosaccharomyces pombe : the rec11 gene. Molecular Microbiology, 1997, 23, 869-878.	1.2	39
86	Gene Replacement With Linear DNA Fragments in Wild-Type Escherichia coli: Enhancement by Chi Sites. Genetics, 1997, 145, 877-889.	1.2	46
87	The Schizosaccharomyces pombe rec16 Gene Product Regulates Multiple Meiotic Events. Genetics, 1997, 146, 57-67.	1.2	21
88	A WD Repeat Protein, Rec14, Essential for Meiotic Recombination in Schizosaccharomyces pombe. Genetics, 1997, 146, 1253-1264.	1.2	43
89	Molecular cloning of the meiosis-induced rec10 gene of Schizosaccharomyces pombe. Current Genetics, 1995, 27, 440-446.	0.8	31
90	An intron-containing meiosis-induced recombination gene, rec15, of Schizosaccharomyces pombe. Molecular Microbiology, 1995, 17, 439-448.	1.2	22

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91	Monomeric RecBCD Enzyme Binds and Unwinds DNA. Journal of Biological Chemistry, 1995, 270, 24451-24458.	1.6	60
92	Strand Specificity of Nicking of DNA at Chi Sites by RecBCD Enzyme. Journal of Biological Chemistry, 1995, 270, 24459-24467.	1.6	65
93	The initiation and control of homologous recombination in Escherichia coli. , 1995, , 9-16.		1
94	Strand-specific Binding to Duplex DNA Ends by the Subunits of the Escherichia coli RecBCD Enzyme. Journal of Molecular Biology, 1993, 229, 67-78.	2.0	74
95	Conjugational recombination in E. coli: Myths and mechanisms. Cell, 1991, 64, 19-27.	13.5	207
96	Action of RecBCD enzyme on cruciform DNA. Journal of Molecular Biology, 1990, 211, 117-134.	2.0	50
97	Homologous recombination in E. coli: Multiple pathways for multiple reasons. Cell, 1989, 58, 807-809.	13.5	130
98	Activation of Chi recombinational hotspots by RecBCD-like enzymes from enteric bacteria. Journal of Molecular Biology, 1989, 210, 485-495.	2.0	48
99	Cutting of chi-like sequences by the RecBCD enzyme of Escherichia coli. Journal of Molecular Biology, 1987, 194, 747-750.	2.0	69
100	Genetic Functions Promoting Homologous Recombination in Escherichia coli: A Study of Inversions in Phage Î». Genetics, 1987, 115, 11-24.	1.2	78
101	Conservation of Chi cutting activity in terrestrial and marine enteric bacteria. Journal of Molecular Biology, 1986, 189, 585-595.	2.0	36
102	ACTIVITY OF CHI RECOMBINATIONAL HOTSPOTS IN SALMONELLA TYPHIMURIUM. Genetics, 1986, 112, 429-439.	1.2	29
103	Role of Escherichia coli RecBC enzyme in SOS induction. Molecular Genetics and Genomics, 1985, 201, 525-528.	2.4	82
104	Homologous recombination promoted by Chi sites and RecBC enzyme ofEscherichia coli. BioEssays, 1985, 2, 244-249.	1.2	53
105	Substrate specificity of the DNA unwinding activity of the RecBC enzyme of Escherichia coli. Journal of Molecular Biology, 1985, 185, 431-443.	2.0	175
106	RecBC enzyme nicking at chi sites during DNA unwinding: Location and orientation-dependence of the cutting. Cell, 1985, 41, 153-163.	13.5	220
107	Chi-dependent DNA strand cleavage by RecBC enzyme. Cell, 1985, 41, 145-151.	13.5	227
108	Recombinational hotspot activity of chi-like sequences. Journal of Molecular Biology, 1984, 180, 371-377.	2.0	61

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109	Identity of a Chi site of Escherichia coli and Chi recombinational hotspots of bacteriophage Î». Journal of Molecular Biology, 1982, 154, 393-398.	2.0	20
110	Clustering of mutations inactivating a Chi recombinational hotspot. Journal of Molecular Biology, 1981, 146, 275-286.	2.0	29
111	Structure of chi hotspots of generalized recombination. Cell, 1981, 24, 429-436.	13.5	330
112	Unwinding and rewinding of DNA by the RecBC enzyme. Cell, 1980, 22, 447-457.	13.5	272