Karoline Schnizer-Luger

List of Publications by Citations

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109 papers	15,598 citations	46 h-index	124 g-index
140 ext. papers	17,723 ext. citations	11.9 avg, IF	6.55 L-index

#	Paper	IF	Citations
109	Crystal structure of the nucleosome core particle at 2.8 A resolution. *Nature*, **1997**, 389, 251-60	50.4	6870
108	Solvent mediated interactions in the structure of the nucleosome core particle at 1.9 a resolution. *Journal of Molecular Biology*, **2002**, 319, 1097-113	6.5	1127
107	Reconstitution of nucleosome core particles from recombinant histones and DNA. *Methods in Enzymology*, **2004**, 375, 23-44	1.7	547
106	Preparation of nucleosome core particle from recombinant histones. *Methods in Enzymology*, **1999**, 304, 3-19	1.7	542
105	New insights into nucleosome and chromatin structure: an ordered state or a disordered affair?. *Nature Reviews Molecular Cell Biology*, **2012**, 13, 436-47	48.7	469
104	The histone tails of the nucleosome. *Current Opinion in Genetics and Development*, **1998**, 8, 140-6	4.9	418
103	The nucleosomal surface as a docking station for Kaposi's sarcoma herpesvirus LANA. *Science*, **2006**, 311, 856-61	33.3	396
102	Structural determinants for generating centromeric chromatin. *Nature*, **2004**, 430, 578-82	50.4	336
101	Structure of the yeast nucleosome core particle reveals fundamental changes in internucleosome interactions. *EMBO Journal*, **2001**, 20, 5207-18	13	303
100	DNA binding within the nucleosome core. *Current Opinion in Structural Biology*, **1998**, 8, 33-40	8.1	247
99	Structure and dynamic behavior of nucleosomes. *Current Opinion in Genetics and Development*, **2003** , 13, 127-35	4.9	232
98	A new fluorescence resonance energy transfer approach demonstrates that the histone variant H2AZ stabilizes the histone octamer within the nucleosome. *Journal of Biological Chemistry*, **2004**, 279, 24274-82	5.4	177
97	Nucleosome and chromatin fiber dynamics. *Current Opinion in Structural Biology*, **2005**, 15, 188-96	8.1	162
96	The histone variant H2A.W defines heterochromatin and promotes chromatin condensation in Arabidopsis. *Cell*, **2014**, 158, 98-109	56.2	160
95	The role of the nucleosome acidic patch in modulating higher order chromatin structure. *Journal of the Royal Society Interface*, **2013**, 10, 20121022	4.1	155
94	The structure of nucleosome assembly protein 1. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 1248-53	11.5	155
93	The histone chaperone FACT: structural insights and mechanisms for nucleosome reorganization. *Journal of Biological Chemistry*, **2011**, 286, 18369-74	5.4	154

92	Nucleosome-binding affinity as a primary determinant of the nuclear mobility of the pioneer transcription factor FoxA. *Genes and Development*, **2009**, 23, 804-9	12.6	151
91	Nucleosome accessibility governed by the dimer/tetramer interface. *Nucleic Acids Research*, **2011**, 39, 3093-102	20.1	145
90	Histone chaperone FACT action during transcription through chromatin by RNA polymerase II. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 7654-9	11.5	138
89	Dynamic nucleosomes. *Chromosome Research*, **2006**, 14, 5-16	4.4	137
88	Crystal structures of nucleosome core particles in complex with minor groove DNA-binding ligands. *Journal of Molecular Biology*, **2003**, 326, 371-80	6.5	135
87	Nucleosome structure and dynamics are coming of age. *Nature Structural and Molecular Biology*, **2019**, 26, 3-13	17.6	125
86	Histone chaperone FACT coordinates nucleosome interaction through multiple synergistic binding events. *Journal of Biological Chemistry*, **2011**, 286, 41883-41892	5.4	113
85	The core histone N-terminal tail domains function independently and additively during salt-dependent oligomerization of nucleosomal arrays. *Journal of Biological Chemistry*, **2005**, 280, 33701-6	5.4	110
84	Automodification switches PARP-1 function from chromatin architectural protein to histone chaperone. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 12752-7	11.5	94
83	Structure of histone-based chromatin in Archaea. *Science*, **2017**, 357, 609-612	33.3	92
82	Torque modulates nucleosome stability and facilitates H2A/H2B dimer loss. *Nature Communications* , **2013**, 4, 2579	17.4	91
81	A charged and contoured surface on the nucleosome regulates chromatin compaction. *Nature Structural and Molecular Biology*, **2007**, 14, 1105-7	17.6	90
80	Molecular recognition of the nucleosomal "supergroove". *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 6864-9	11.5	80
79	FACT caught in the act of manipulating the nucleosome. *Nature*, **2020**, 577, 426-431	50.4	80
78	A thermodynamic model for Nap1-histone interactions. *Journal of Biological Chemistry*, **2008**, 283, 32412-8	5.4	70
77	Energetics and affinity of the histone octamer for defined DNA sequences. *Biochemistry*, **2001**, 40, 10927-33	3.2	70
76	Decoding the centromeric nucleosome through CENP-N. *ELife*, **2017**, 6,	8.9	68
75	Histone core phosphorylation regulates DNA accessibility. *Journal of Biological Chemistry*, **2015**, 290, 22612-21	5.4	62

74	Alternative modes of binding of poly(ADP-ribose) polymerase 1 to free DNA and nucleosomes. *Journal of Biological Chemistry*, **2012**, 287, 32430-9	5.4	61
73	Yeast CAF-1 assembles histone (H3-H4)2 tetramers prior to DNA deposition. *Nucleic Acids Research*, **2012**, 40, 10139-49	20.1	61
72	Chaperone Nap1 shields histone surfaces used in a nucleosome and can put H2A-H2B in an unconventional tetrameric form. *Molecular Cell*, **2013**, 51, 662-77	17.6	58
71	Replication Stress Shapes a Protective Chromatin Environment across Fragile Genomic Regions. *Molecular Cell*, **2018**, 69, 36-47.e7	17.6	57
70	Histone chaperone specificity in Rtt109 activation. *Nature Structural and Molecular Biology*, **2008**, 15, 957-64	17.6	56
69	A multilaboratory comparison of calibration accuracy and the performance of external references in analytical ultracentrifugation. *PLoS ONE*, **2015**, 10, e0126420	3.7	55
68	Structural and biophysical studies of human PARP-1 in complex with damaged DNA. *Journal of Molecular Biology*, **2010**, 395, 983-94	6.5	52
67	Fluorescence strategies for high-throughput quantification of protein interactions. *Nucleic Acids Research*, **2012**, 40, e33	20.1	52
66	Nucleosomes in solution exist as a mixture of twist-defect states. *Journal of Molecular Biology*, **2005**, 345, 103-14	6.5	49
65	A quantitative investigation of linker histone interactions with nucleosomes and chromatin. *Scientific Reports*, **2016**, 6, 19122	4.9	46
64	Biophysical analysis and small-angle X-ray scattering-derived structures of MeCP2-nucleosome complexes. *Nucleic Acids Research*, **2011**, 39, 4122-35	20.1	46
63	The right place at the right time: chaperoning core histone variants. *EMBO Reports*, **2015**, 16, 1454-66	6.5	45
62	The histone chaperone FACT modulates nucleosome structure by tethering its components. *Life Science Alliance*, **2018**, 1, e201800107	5.8	45
61	Role of the loop containing residue 115 in the induced-fit mechanism of the bacterial cell wall biosynthetic enzyme MurA. *Biochemistry*, **2000**, 39, 2164-73	3.2	43
60	DNA-mediated association of two histone-bound complexes of yeast Chromatin Assembly Factor-1 (CAF-1) drives tetrasome assembly in the wake of DNA replication. *ELife*, **2017**, 6,	8.9	39
59	The linker region of macroH2A promotes self-association of nucleosomal arrays. *Journal of Biological Chemistry*, **2011**, 286, 23852-64	5.4	38
58	Mechanistic insights into histone deposition and nucleosome assembly by the chromatin assembly factor-1. *Nucleic Acids Research*, **2018**, 46, 9907-9917	20.1	34
57	Bivalent interaction of the PZP domain of BRPF1 with the nucleosome impacts chromatin dynamics and acetylation. *Nucleic Acids Research*, **2016**, 44, 472-84	20.1	33

56	Investigating the Dynamics of Destabilized Nucleosomes Using Methyl-TROSY NMR. *Journal of the American Chemical Society*, **2018**, 140, 4774-4777	16.4	32
55	Histone Acetylation near the Nucleosome Dyad Axis Enhances Nucleosome Disassembly by RSC and SWI/SNF. *Molecular and Cellular Biology*, **2015**, 35, 4083-92	4.8	26
54	Quantifying chromatin-associated interactions: the HI-FI system. *Methods in Enzymology*, **2012**, 512, 243-74	1.7	25
53	Constitutive centromere-associated network contacts confer differential stability on CENP-A nucleosomes in vitro and in the cell. *Molecular Biology of the Cell*, **2018**, 29, 751-762	3.5	23
52	Poly(ADP-ribose) polymerase 1 searches DNA via a 'monkey bar' mechanism. *ELife*, **2018**, 7,	8.9	22
51	Assembly of nucleosomal arrays from recombinant core histones and nucleosome positioning DNA. *Journal of Visualized Experiments*, **2013**,	1.6	21
50	Histone Chaperone Nap1 Is a Major Regulator of Histone H2A-H2B Dynamics at the Inducible GAL Locus. *Molecular and Cellular Biology*, **2016**, 36, 1287-96	4.8	18
49	The transcription factor Spn1 regulates gene expression via a highly conserved novel structural motif. *Journal of Molecular Biology*, **2010**, 404, 1-15	6.5	16
48	Histone Parylation factor 1 contributes to the inhibition of PARP1 by cancer drugs. *Nature Communications*, **2021**, 12, 736	17.4	16
47	Single and double box HMGB proteins differentially destabilize nucleosomes. *Nucleic Acids Research*, **2019**, 47, 666-678	20.1	15
46	HPF1 and nucleosomes mediate a dramatic switch in activity of PARP1 from polymerase to hydrolase. *ELife*, **2021**, 10,	8.9	15
45	The Cac2 subunit is essential for productive histone binding and nucleosome assembly in CAF-1. *Scientific Reports*, **2017**, 7, 46274	4.9	13
44	Bridging of nucleosome-proximal DNA double-strand breaks by PARP2 enhances its interaction with HPF1. *PLoS ONE*, **2020**, 15, e0240932	3.7	13
43	Histone chaperone FACT FAcilitates Chromatin Transcription: mechanistic and structural insights. *Current Opinion in Structural Biology*, **2020**, 65, 26-32	8.1	12
42	Nonspecific Binding of RNA to PARP1 and PARP2 Does Not Lead to Catalytic Activation. *Biochemistry*, **2019**, 58, 5107-5111	3.2	11
41	Archaeal DNA on the histone merry-go-round. *FEBS Journal*, **2018**, 285, 3168-3174	5.7	10
40	Nucleosomes Meet Their Remodeler Match. *Trends in Biochemical Sciences*, **2021**, 46, 41-50	10.3	10
39	Q-FADD: A Mechanistic Approach for Modeling the Accumulation of Proteins at Sites of DNA Damage. *Biophysical Journal*, **2019**, 116, 2224-2233	2.9	9

38	Scm3 deposits a (Cse4-H4)2 tetramer onto DNA through a Cse4-H4 dimer intermediate. *Nucleic Acids Research*, **2014**, 42, 5532-42	20.1	9
37	Archaeal chromatin 'slinkies' are inherently dynamic complexes with deflected DNA wrapping pathways. *ELife*, **2021**, 10,	8.9	9
36	The elongation factor Spn1 is a multi-functional chromatin binding protein. *Nucleic Acids Research*, **2018**, 46, 2321-2334	20.1	8
35	Quantitating repair protein accumulation at DNA lesions: Past, present, and future. *DNA Repair*, **2019**, 81, 102650	4.3	8
34	Analytical Ultracentrifugation (AUC): An Overview of the Application of Fluorescence and Absorbance AUC to the Study of Biological Macromolecules. *Current Protocols in Molecular Biology*, **2020**, 133, e131	2.9	8
33	EvoChromo: towards a synthesis of chromatin biology and evolution. *Development (Cambridge)*, **2019**, 146,	6.6	7
32	Coordinated Action of Nap1 and RSC in Disassembly of Tandem Nucleosomes. *Molecular and Cellular Biology*, **2016**, 36, 2262-71	4.8	7
31	Probing the Conformational Changes Associated with DNA Binding to PARP1. *Biochemistry*, **2020**, 59, 2003-2011	3.2	6
30	Archaea: The Final Frontier of Chromatin. *Journal of Molecular Biology*, **2021**, 433, 166791	6.5	5
29	Virus-encoded histone doublets are essential and form nucleosome-like structures. *Cell*, **2021**, 184, 4237-4250.e19	56.2	5
28	Picking a nucleosome lock: Sequence- and structure-specific recognition of the nucleosome. *Journal of Biosciences*, **2020**, 45, 1	2.3	4
27	FRET-based Stoichiometry Measurements of Protein Complexes. *Bio-protocol*, **2018**, 7,	0.9	4
26	The secret life of histones. *Science*, **2020**, 369, 33	33.3	3
25	Bridging of nucleosome-proximal DNA double-strand breaks by PARP2 enhances its interaction with HPF1		3
24	Inhibitors of PARP: Number crunching and structure gazing.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2121979119	11.5	3
23	CENP-N promotes the compaction of centromeric chromatin.. *Nature Structural and Molecular Biology*, **2022**, 29, 403-413	17.6	3
22	PARP1 and Sox2: An Unlikely Team of Pioneers to Conquer the Nucleosome. *Molecular Cell*, **2017**, 65, 581-582	17.6	2
21	Yeast CAF-1 assembles histone (H3-H4) 2 tetramers prior to DNA deposition. *Nucleic Acids Research*, **2017**, 45, 9811-9812	20.1	2

20	The BRCT domain of PARP1 binds intact DNA and mediates intrastrand transfer.. *Molecular Cell*, **2021**, 81, 4994-5006.e5	17.6	2
19	SMARCAD1 is an ATP-dependent histone octamer exchange factor with de novo nucleosome assembly activity. *Science Advances*, **2021**, 7, eabk2380	14.3	2
18	Biochemical and Biophysical Methods for Analysis of Poly(ADP-Ribose) Polymerase 1 and Its Interactions with Chromatin. *Methods in Molecular Biology*, **2017**, 1608, 231-253	1.4	2
17	Q-FADD: A mechanistic approach for modeling the accumulation of proteins at sites of DNA damage by free diffusion		2
16	Solution structure(s) of trinucleosomes from contrast variation SAXS. *Nucleic Acids Research*, **2021**, 49, 5028-5037	20.1	2
15	CENP-N promotes the compaction of centromeric chromatin		2
14	Picking a nucleosome lock: Sequence- and structure-specific recognition of the nucleosome. *Journal of Biosciences*, **2020**, 45,	2.3	2
13	Kinetics of DNA-protein association and dissociation by stopped-flow spectroscopy. *Methods in Enzymology*, **2019**, 625, 135-156	1.7	1
12	The histone chaperone FACT modulates nucleosome structure by tethering its components		1
11	Archaeal chromatin "slinkies" are inherently dynamic complexes with deflected DNA wrapping pathways		1
10	Automated Modeling of Protein Accumulation at DNA Damage Sites using qFADD.py		1
9	Melbournevirus-encoded histone doublets are recruited to virus particles and form destabilized nucleosome-like structures		1
8	Structure and function of the chromatin remodeler SMARCAD1 with its nucleosome substrate		1
7	Measuring Nucleosome Assembly Activity with the Nucleosome Assembly and Quantification (NAQ) Assay. *Bio-protocol*, **2018**, 8,	0.9	1
6	Spn1 and its dynamic interactions with Spt6, histones and nucleosomes. *Journal of Molecular Biology*, **2022**, 167630	6.5	0
5	Nucleosome thermodynamics, histone modifications, and histone chaperone function. *FASEB Journal*, **2010**, 24, 310.2	0.9	
4	Bridging of nucleosome-proximal DNA double-strand breaks by PARP2 enhances its interaction with HPF1 **2020**, 15, e0240932		
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