Keith R Willison

List of Publications by Year
in descending order

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101 papers	6,706 citations	61984 43 h-index	62596 80 g-index
109 all docs	109 docs citations	109 times ranked	4703 citing authors

#	Article	IF	Citations
1	Evaluation of FOXO1 Target Engagement Using a Single-Cell Microfluidic Platform. Analytical Chemistry, 2021, 93, 14659-14666.	6.5	5
2	Acetylation Rather than H50Q Mutation Impacts the Kinetics of Cu(II) Binding to Î±â€Synuclein. ChemPhysChem, 2021, 22, 2413-2419.	2.1	4
3	Acetylation Rather than H50Q Mutation Impacts the Kinetics of Cu(II) Binding to Î±â€Synuclein. ChemPhysChem, 2021, 22, 2380-2380.	2.1	1
4	Single-molecule nanopore sensing of actin dynamics and drug binding. Chemical Science, 2020, 11, 970-979.	7.4	38
5	A Novel AÎ²40 Assembly at Physiological Concentration. Scientific Reports, 2020, 10, 9477.	3.3	6
6	Detection of Drug Binding to a Target Protein Using EVV 2DIR Spectroscopy. Journal of Physical Chemistry B, 2019, 123, 3598-3606.	2.6	9
7	Nanoscale tweezers for single-cell biopsies. Nature Nanotechnology, 2019, 14, 80-88.	31.5	147
8	Probing Synaptic Amyloid-Beta Aggregation Promoted by Copper Release. Biophysical Journal, 2018, 114, 430a.	0.5	0
9	The structure and evolution of eukaryotic chaperonin-containing TCP-1 and its mechanism that folds actin into a protein spring. Biochemical Journal, 2018, 475, 3009-3034.	3.7	36
10	The substrate specificity of eukaryotic cytosolic chaperonin CCT. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170192.	4.0	47
11	Multiplexed single cell protein expression analysis in solid tumours using a miniaturised microfluidic assay. Convergent Science Physical Oncology, 2017, 3, 024003.	2.6	13
12	Plasmodium actin is incompletely folded by heterologous proteinâ€folding machinery and likely requires the native Plasmodium chaperonin complex to enter a mature functional state. FASEB Journal, 2016, 30, 405-416.	0.5	21
13	Chemical-Free Lysis and Fractionation of Cells by Use of Surface Acoustic Waves for Sensitive Protein Assays. Analytical Chemistry, 2015, 87, 2161-2169.	6.5	34
14	Identification and Relative Quantification of Tyrosine Nitration in a Model Peptide Using Two-Dimensional Infrared Spectroscopy. Journal of Physical Chemistry B, 2014, 118, 12855-12864.	2.6	16
15	Addressable droplet microarrays for single cell protein analysis. Analyst, The, 2014, 139, 5367-5374.	3.5	13
16	Absolute quantification of protein copy number using a single-molecule-sensitive microarray. Analyst, The, 2014, 139, 3235.	3.5	19
17	Quantitative single cell and single molecule proteomics for clinical studies. Current Opinion in Biotechnology, 2013, 24, 745-751.	6.6	33
18	Scaling advantages and constraints in miniaturized capture assays for single cell protein analysis. Lab on A Chip, 2013, 13, 2066.	6.0	25

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19	Interactions of subunit CCT3 in the yeast chaperonin CCT/TRiC with Q/N-rich proteins revealed by high-throughput microscopy analysis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18833-18838.	7.1	32
20	Affinity chromatography and capillary electrophoresis for analysis of the yeast ribosomal proteins. BMB Reports, 2012, 45, 233-238.	2.4	3
21	A first step towards practical single cell proteomics: a microfluidic antibody capture chip with TIRF detection. Lab on A Chip, 2011, 11, 1256.	6.0	105
22	Structural Changes Underlying Allostery in Group II Chaperonins. Structure, 2011, 19, 754-755.	3.3	4
23	On the evolutionary origin of the chaperonins. Proteins: Structure, Function and Bioinformatics, 2011, 79, 1172-1192.	2.6	26
24	A Two-step Mechanism for the Folding of Actin by the Yeast Cytosolic Chaperonin. Journal of Biological Chemistry, 2011, 286, 178-184.	3.4	26
25	The crystal structure of yeast CCT reveals intrinsic asymmetry of eukaryotic cytosolic chaperonins. EMBO Journal, 2011, 30, 3078-3090.	7.8	94
26	Generation of Simplified Protein Raman Spectra Using Three-Color Picosecond Coherent Anti-Stokes Raman Spectroscopy. Journal of Physical Chemistry B, 2010, 114, 12175-12181.	2.6	5
27	Detection of Molecular Complex Formation and Direct Determination of Intermolecular Interaction Geometries by a Hybrid Raman-Infrared Multidimensional Coherent Spectroscopy: Implications for High Throughput Biology. , 2010, , .		0
28	Optical Proteomics Combining Nonlinear Electrokinetics and Coherent Two-Dimensional Infrared Spectroscopy. Biophysical Journal, 2010, 98, 17a.	0.5	0
29	Equivalent Mutations in the Eight Subunits of the Chaperonin CCT Produce Dramatically Different Cellular and Gene Expression Phenotypes. Journal of Molecular Biology, 2010, 401, 532-543.	4.2	83
30	A single amino acid residue is responsible for speciesâ€specific incompatibility between CCT and Î±â€actin. FEBS Letters, 2009, 583, 782-786.	2.8	15
31	Multigene expression of protein complexes by iterative modification of genomic Bacmid DNA. BMC Molecular Biology, 2009, 10, 87.	3.0	29
32	Yeast Phosducin-Like Protein 2 Acts as a Stimulatory Co-Factor for the Folding of Actin by the Chaperonin CCT via a Ternary Complex. Journal of Molecular Biology, 2009, 391, 192-206.	4.2	33
33	Biological and Biomedical Applications of Two-Dimensional Vibrational Spectroscopy: Proteomics, Imaging, and Structural Analysis. Accounts of Chemical Research, 2009, 42, 1322-1331.	15.6	53
34	A microfluidic platform for probing single cell plasma membranes using optically trapped Smart Droplet Microtools (SDMs). Lab on A Chip, 2009, 9, 1096.	6.0	27
35	Optical fingerprinting of peptides using two-dimensional infrared spectroscopy: Proof of principle. Analytical Biochemistry, 2008, 374, 358-365.	2.4	31
36	The interaction network of the chaperonin CCT. EMBO Journal, 2008, 27, 1827-1839.	7.8	182

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37	Development of free-energy-based models for chaperonin containing TCP-1 mediated folding of actin. Journal of the Royal Society Interface, 2008, 5, 1391-1408.	3.4	27
38	ATP-Induced Allostery in the Eukaryotic Chaperonin CCT Is Abolished by the Mutation G345D in CCT4 that Renders Yeast Temperature-Sensitive for Growth. Journal of Molecular Biology, 2008, 377, 469-477.	4.2	55
39	Protein identification and quantification by two-dimensional infrared spectroscopy: Implications for an all-optical proteomic platform. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15352-15357.	7.1	50
40	Direct identification and decongestion of Fermi resonances by control of pulse time ordering in two-dimensional IR spectroscopy. Journal of Chemical Physics, 2007, 127, 114513.	3.0	33
41	The interâ€ring arrangement of the cytosolic chaperonin CCT. EMBO Reports, 2007, 8, 252-257.	4.5	37
42	Quantitative Actin Folding Reactions using Yeast CCT Purified via an Internal Tag in the CCT3/Î³ Subunit. Journal of Molecular Biology, 2006, 360, 484-496.	4.2	60
43	Substantial CCT activity is required for cell cycle progression and cytoskeletal organization in mammalian cells. Experimental Cell Research, 2006, 312, 2309-2324.	2.6	110
44	Sequential ATP-induced allosteric transitions of the cytoplasmic chaperonin containing TCP-1 revealed by EM analysis. Nature Structural and Molecular Biology, 2005, 12, 233-237.	8.2	100
45	Allosteric regulation of chaperonins. Current Opinion in Structural Biology, 2005, 15, 646-651.	5.7	132
46	Unfolding Energetics of G-Î±-Actin: A Discrete Intermediate can be Re-folded to the Native State by CCT. Journal of Molecular Biology, 2005, 353, 385-396.	4.2	19
47	The substrate recognition mechanisms in chaperonins. Journal of Molecular Recognition, 2004, 17, 85-94.	2.1	71
48	Doc1 mediates the activity of the anaphase-promoting complex by contributing to substrate recognition. EMBO Journal, 2003, 22, 786-796.	7.8	176
49	Visualization of DNA-induced conformational changes in the DNA repair kinase DNA-PKcs. EMBO Journal, 2003, 22, 5875-5882.	7.8	67
50	Localization in the human retina of the X-linked retinitis pigmentosa protein RP2, its homologue cofactor C and the RP2 interacting protein Arl3. Human Molecular Genetics, 2002, 11, 3065-3074.	2.9	119
51	Structure and function of a protein folding machine: the eukaryotic cytosolic chaperonin CCT. FEBS Letters, 2002, 529, 11-16.	2.8	193
52	Crystal Structure of the CCTÎ³ Apical Domain: Implications for Substrate Binding to the Eukaryotic Cytosolic Chaperonin. Journal of Molecular Biology, 2002, 318, 1367-1379.	4.2	72
53	Delineation of the plasma membrane targeting domain of the X-linked retinitis pigmentosa protein RP2. Investigative Ophthalmology and Visual Science, 2002, 43, 2015-20.	3.3	41
54	Analysis of the Interaction between the Eukaryotic Chaperonin CCT and Its Substrates Actin and Tubulin. Journal of Structural Biology, 2001, 135, 205-218.	2.8	70

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55	Point Mutations in a Hinge Linking the Small and Large Domains of Î²-Actin Result in Trapped Folding Intermediates Bound to Cytosolic Chaperonin CCT. Journal of Structural Biology, 2001, 135, 198-204.	2.8	35
56	Mutational Screen Identifies Critical Amino Acid Residues of Î²-Actin Mediating Interaction between Its Folding Intermediates and Eukaryotic Cytosolic Chaperonin CCT. Journal of Structural Biology, 2001, 135, 185-197.	2.8	42
57	Nested allosteric interactions in the cytoplasmic chaperonin containing TCP-1. Protein Science, 2001, 10, 445-449.	7.6	61
58	Individual Subunits of the Eukaryotic Cytosolic Chaperonin Mediate Interactions with Binding Sites Located on Subdomains of Î²-Actin. Journal of Biological Chemistry, 2000, 275, 18985-18994.	3.4	68
59	Partial Occlusion of Both Cavities of the Eukaryotic Chaperonin with Antibody Has No Effect upon the Rates of Î²-Actin or Î±-Tubulin Folding. Journal of Biological Chemistry, 2000, 275, 4587-4591.	3.4	31
60	Defining the eukaryotic cytosolic chaperonin-binding sites in human tubulins 1 1Edited by J. Karn. Journal of Molecular Biology, 2000, 304, 81-98.	4.2	39
61	3D reconstruction of the ATP-bound form of CCT reveals the asymmetric folding conformation of a type II chaperonin. Nature Structural Biology, 1999, 6, 639-642.	9.7	102
62	Eukaryotic type II chaperonin CCT interacts with actin through specific subunits. Nature, 1999, 402, 693-696.	27.8	247
63	Distorting sex ratios. Nature, 1999, 402, 131-132.	27.8	2
64	ATP Binding Induces Large Conformational Changes in the Apical and Equatorial Domains of the Eukaryotic Chaperonin Containing TCP-1 Complex. Journal of Biological Chemistry, 1998, 273, 10091-10094.	3.4	54
65	The Chaperonin Containing TCP-1 (CCT). Displays a Single-Ring Mediated Disassembly and Reassembly Cycle. Biological Chemistry, 1998, 379, 311-320.	2.5	27
66	Tissue-specific subunit of the mouse cytosolic chaperonin-containing TCP-1 1. FEBS Letters, 1997, 402, 53-56.	2.8	53
67	ADP-ribosylation factor 1-regulated phospholipase D activity is localized at the plasma membrane and intracellular organelles in HL60 cells. Biochemical Journal, 1996, 320, 785-794.	3.7	79
68	Analysis of chaperonin-containing TCP-1 subunits in the human keratinocyte two-dimensional protein database: Further characterisation of antibodies to individual subunits. Electrophoresis, 1996, 17, 1720-1727.	2.4	16
69	The eighth Cct gene, Cctq, encoding the theta subunit of the cytosolic chaperonin containing TCP-1. Gene, 1995, 154, 231-236.	2.2	72
70	Tctex2: A Sperm Tail Surface Protein Mapping to the t-Complex. Developmental Biology, 1995, 170, 183-194.	2.0	51
71	Antibody characterisation of two distinct conformations of the chaperonin-containing TCP-1 from mouse testis. FEBS Letters, 1995, 358, 129-132.	2.8	56
72	The Chaperonin Containing t-complex polypeptide 1 (TCP-1). Multisubunit Machinery Assisting in Protein Folding and Assembly in the Eukaryotic Cytosol. FEBS Journal, 1995, 230, 3-16.	0.2	251

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73	Cystosolic chaperonin subunits have a conserved ATPase domain but diverged polypeptide-binding domains. Trends in Biochemical Sciences, 1994, 19, 543-548.	7.5	194
74	Identification of six Tcp-1-related genes encoding divergent subunits of the TCP-1-containing chaperonin. Current Biology, 1994, 4, 89-99.	3.9	292
75	Mouse t haplotype-specific double insertion of B2 repetitive sequences in the Tcp-1 intron 7. Mammalian Genome, 1993, 4, 58-59.	2.2	14
76	Cyclophilins unfold the Gag?. Nature, 1993, 365, 395-396.	27.8	19
77	Molecular mechanisms of differentiation in mammalian spermatogenesis. Seminars in Developmental Biology, 1993, 4, 179-188.	1.3	12
78	Cloning. chromosomal localization and expression pattern of the POU domain gene Oct-11. Nucleic Acids Research, 1993, 21, 127-134.	14.5	42
79	T-complex polypeptide-1 is a subunit of a heteromeric particle in the eukaryotic cytosol. Nature, 1992, 358, 249-252.	27.8	312
80	Genetic maps of mouse Chromosome 17 including 12 new anonymous DNA loci and 25 anchor loci. Genomics, 1991, 9, 78-89.	2.9	53
81	Sequence of the t complex Tcp-10a t gene and examination of the Tcp-10 t gene family. Mammalian Genome, 1991, 1, 235-241.	2.2	6
82	Mouse preproacrosin: cDNA sequence, primary structure and postmeiotic expression in spermatogenesis. Differentiation, 1990, 42, 160-166.	1.9	44
83	The mouse Brachyury gene and mesoderm formation. Trends in Genetics, 1990, 6, 104-106.	6.7	32
84	Nucleotide and amino-acid sequence of human testis-derived TCP1. Nucleic Acids Research, 1990, 18, 4247-4247.	14.5	29
85	Cloning and sequencing of POU-boxes expressed in mouse testis. Nucleic Acids Research, 1990, 18, 1634-1634.	14.5	25
86	Absence of the type I IFN system in EC cells: Transcriptional activator (IRF-1) and repressor (IRF-2) genes are developmentally regulated. Cell, 1990, 63, 303-312.	28.9	381
87	The t complex polypeptide 1 (TCP-1) is associated with the cytoplasmic aspect of Golgi membranes. Cell, 1989, 57, 621-632.	28.9	90
88	Mammalian spermatogenic gene expression. Trends in Genetics, 1987, 3, 351-355.	6.7	187
89	Molecular cloning and sequence analysis of a haploid expressed gene encoding t complex polypeptide 1. Cell, 1986, 44, 727-738.	28.9	198
90	â€˜t-partyâ€™ at the Jackson Laboratory. Trends in Genetics, 1986, 2, 305-306.	6.7	3

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91	Sex and frequency of gene conversions in meiosis. Nature, 1985, 313, 604-604.	27.8	11
92	The class I major histocompatibility antigen gene activated in a line of SV40-transformed mouse cells is Hâ€“2Dd, not Qa/Tla. Nature, 1985, 316, 162-163.	27.8	40
93	Analysis of male sterile mutations in the mouse using haploid stage expressed cDNA probes. Nucleic Acids Research, 1984, 12, 4281-4293.	14.5	60
94	Persistence of a lethal <i>t</i> haplotype in a laboratory stock of outbred mice. Genetical Research, 1984, 43, 21-25.	0.9	6
95	Embryology: Lethal mutation in collagen gene. Nature, 1983, 304, 307-307.	27.8	0
96	A major rearrangement in the Hâ€“2 complex of mouse t haplotypes. Nature, 1983, 304, 549-552.	27.8	42
97	Activation of a Qa/Tla class I major histocompatibility antigen gene is a general feature of oncogenesis in the mouse. Nature, 1983, 306, 756-760.	27.8	175
98	Transcripts regulated during normal embryonic development and oncogenic transformation share a repetitive element. Cell, 1983, 35, 865-871.	28.9	163
99	Inserted retroviruses cause embryonic lethal mutation. Nature, 1982, 300, 401-402.	27.8	1
100	Monoclonal antibodies as probes for differentiation and tumor-associated antigens: a Forssman specificity on teratocarcinoma stem cells. Cell, 1978, 14, 775-783.	28.9	185
101	Expression of a Forssman antigenic specificity in the preimplantation mouse embryo. Cell, 1978, 14, 785-793.	28.9	130