

# Jay R Unruh

## List of Publications by Year in descending order

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104  
papers

5,383  
citations

81743

39  
h-index

98622

67  
g-index

125  
all docs

125  
docs citations

125  
times ranked

7555  
citing authors

#	ARTICLE	IF	CITATIONS
1	Integrative structure and functional anatomy of a nuclear pore complex. <i>Nature</i> , 2018, 555, 475-482.	13.7	435
2	The Arp2/3 complex is required for lamellipodia extension and directional fibroblast cell migration. <i>Journal of Cell Biology</i> , 2012, 197, 239-251.	2.3	291
3	Critical Role of Amyloid-like Oligomers of <i>Drosophila</i> Orb2 in the Persistence of Memory. <i>Cell</i> , 2012, 148, 515-529.	13.5	262
4	Dynamic maintenance of asymmetric meiotic spindle position through Arp2/3-complex-driven cytoplasmic streaming in mouse oocytes. <i>Nature Cell Biology</i> , 2011, 13, 1252-1258.	4.6	239
5	Organelle-Based Aggregation and Retention of Damaged Proteins in Asymmetrically Dividing Cells. <i>Cell</i> , 2014, 159, 530-542.	13.5	209
6	DNA Aptamer-Based Bioanalysis of IgE by Fluorescence Anisotropy. <i>Analytical Chemistry</i> , 2005, 77, 1963-1970.	3.2	172
7	Image Correlation Spectroscopy of Multiphoton Images Correlates with Collagen Mechanical Properties. <i>Biophysical Journal</i> , 2008, 94, 2361-2373.	0.2	168
8	Actin Depolymerization Drives Actomyosin Ring Contraction during Budding Yeast Cytokinesis. <i>Developmental Cell</i> , 2012, 22, 1247-1260.	3.1	149
9	Sequential actin-based pushing forces drive meiosis I chromosome migration and symmetry breaking in oocytes. <i>Journal of Cell Biology</i> , 2013, 200, 567-576.	2.3	124
10	Superresolution expansion microscopy reveals the three-dimensional organization of the <i>Drosophila</i> synaptonemal complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E6857-E6866.	3.3	121
11	Motility and Segregation of Hsp104-Associated Protein Aggregates in Budding Yeast. <i>Cell</i> , 2011, 147, 1186-1196.	13.5	114
12	Ribosomal DNA copy number loss and sequence variation in cancer. <i>PLoS Genetics</i> , 2017, 13, e1006771.	1.5	111
13	N-Cadherin-Expressing Bone and Marrow Stromal Progenitor Cells Maintain Reserve Hematopoietic Stem Cells. <i>Cell Reports</i> , 2019, 26, 652-669.e6.	2.9	106
14	Mitotic Transcriptional Activation: Clearance of Actively Engaged Pol II via Transcriptional Elongation Control in Mitosis. <i>Molecular Cell</i> , 2015, 60, 435-445.	4.5	102
15	Amyloidogenic Oligomerization Transforms <i>Drosophila</i> Orb2 from a Translation Repressor to an Activator. <i>Cell</i> , 2015, 163, 1468-1483.	13.5	99
16	Orientational Dynamics and Dye-DNA Interactions in a Dye-Labeled DNA Aptamer. <i>Biophysical Journal</i> , 2005, 88, 3455-3465.	0.2	94
17	Flippase-mediated phospholipid asymmetry promotes fast Cdc42 recycling in dynamic maintenance of cell polarity. <i>Nature Cell Biology</i> , 2012, 14, 304-310.	4.6	94
18	Cell-Cycle-Coupled Structural Oscillation of Centromeric Nucleosomes in Yeast. <i>Cell</i> , 2012, 150, 304-316.	13.5	92

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19	The SUN Protein Mps3 Is Required for Spindle Pole Body Insertion into the Nuclear Membrane and Nuclear Envelope Homeostasis. <i>PLoS Genetics</i> , 2011, 7, e1002365.	1.5	89
20	Comprehensive structure and functional adaptations of the yeast nuclear pore complex. <i>Cell</i> , 2022, 185, 361-378.e25.	13.5	87
21	Two-photon microscopy with wavelength switchable fiber laser excitation. <i>Optics Express</i> , 2006, 14, 9825.	1.7	81
22	Cohesin Proteins Promote Ribosomal RNA Production and Protein Translation in Yeast and Human Cells. <i>PLoS Genetics</i> , 2012, 8, e1002749.	1.5	79
23	Analysis of Molecular Concentration and Brightness from Fluorescence Fluctuation Data with an Electron Multiplied CCD Camera. <i>Biophysical Journal</i> , 2008, 95, 5385-5398.	0.2	78
24	Analysis of membrane proteins localizing to the inner nuclear envelope in living cells. <i>Journal of Cell Biology</i> , 2016, 215, 575-590.	2.3	78
25	Molecular Basis of Orb2 Amyloidogenesis and Blockade of Memory Consolidation. <i>PLoS Biology</i> , 2016, 14, e1002361.	2.6	77
26	Quantifying Nucleation In Vivo Reveals the Physical Basis of Prion-like Phase Behavior. <i>Molecular Cell</i> , 2018, 71, 155-168.e7.	4.5	76
27	The membrane-associated proteins FCHO and SGIP are allosteric activators of the AP2 clathrin adaptor complex. <i>ELife</i> , 2014, 3, .	2.8	75
28	Non-uniform membrane diffusion enables steady-state cell polarization via vesicular trafficking. <i>Nature Communications</i> , 2013, 4, 1380.	5.8	68
29	Combined expansion microscopy with structured illumination microscopy for analyzing protein complexes. <i>Nature Protocols</i> , 2018, 13, 1869-1895.	5.5	68
30	Three-dimensional reconstructions of Arp2/3 complex with bound nucleation promoting factors. <i>EMBO Journal</i> , 2012, 31, 236-247.	3.5	67
31	Structured illumination with particle averaging reveals novel roles for yeast centrosome components during duplication. <i>ELife</i> , 2015, 4, .	2.8	64
32	Analysis of dynamic changes in retinoid-induced transcription and epigenetic profiles of murine <i>Hox</i> clusters in ES cells. <i>Genome Research</i> , 2015, 25, 1229-1243.	2.4	64
33	Independence of symmetry breaking on Bem1-mediated autocatalytic activation of Cdc42. <i>Journal of Cell Biology</i> , 2013, 202, 1091-1106.	2.3	61
34	Single-Molecule Resonance Energy Transfer and Fluorescence Correlation Spectroscopy of Calmodulin in Solution. <i>Journal of Physical Chemistry B</i> , 2004, 108, 10388-10397.	1.2	60
35	Fluorescence Properties of Fluorescein, Tetramethylrhodamine and Texas Red Linked to a DNA Aptamer. <i>Photochemistry and Photobiology</i> , 2005, 81, 682.	1.3	59
36	Dynamic regulation of Nanog and stem cell-signaling pathways by Hoxa1 during early neuro-ectodermal differentiation of ES cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 5838-5845.	3.3	54

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37	Corolla Is a Novel Protein That Contributes to the Architecture of the Synaptonemal Complex of <i>Drosophila</i> . <i>Genetics</i> , 2014, 198, 219-228.	1.2	53
38	The SUN protein Mps3 controls Ndc1 distribution and function on the nuclear membrane. <i>Journal of Cell Biology</i> , 2014, 204, 523-539.	2.3	50
39	Vilya, a component of the recombination nodule, is required for meiotic double-strand break formation in <i>Drosophila</i> . <i>ELife</i> , 2015, 4, e08287.	2.8	45
40	Conformational Substates of Calmodulin Revealed by Single-Pair Fluorescence Resonance Energy Transfer: Influence of Solution Conditions and Oxidative Modification. <i>Biochemistry</i> , 2005, 44, 3694-3707.	1.2	44
41	Cohesion promotes nucleolar structure and function. <i>Molecular Biology of the Cell</i> , 2014, 25, 337-346.	0.9	44
42	Structural plasticity of the living kinetochore. <i>Journal of Cell Biology</i> , 2017, 216, 3551-3570.	2.3	42
43	Molecular model of fission yeast centrosome assembly determined by superresolution imaging. <i>Journal of Cell Biology</i> , 2017, 216, 2409-2424.	2.3	41
44	Superresolution microscopy reveals linkages between ribosomal DNA on heterologous chromosomes. <i>Journal of Cell Biology</i> , 2019, 218, 2492-2513.	2.3	40
45	PCP and Wnt pathway components act in parallel during zebrafish mechanosensory hair cell orientation. <i>Nature Communications</i> , 2019, 10, 3993.	5.8	38
46	A Putative Biochemical Engram of Long-Term Memory. <i>Current Biology</i> , 2016, 26, 3143-3156.	1.8	35
47	HOXA1 and TALE proteins display cross-regulatory interactions and form a combinatorial binding code on HOXA1 targets. <i>Genome Research</i> , 2017, 27, 1501-1512.	2.4	35
48	Yeast centrosome components form a noncanonical LINC complex at the nuclear envelope insertion site. <i>Journal of Cell Biology</i> , 2019, 218, 1478-1490.	2.3	33
49	Tumor-initiating stem cell shapes its microenvironment into an immunosuppressive barrier and pro-tumorigenic niche. <i>Cell Reports</i> , 2021, 36, 109674.	2.9	33
50	Binding of <i>Drosophila</i> Polo kinase to its regulator Matrimony is noncanonical and involves two separate functional domains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E1222-31.	3.3	27
51	WDR76 Co-Localizes with Heterochromatin Related Proteins and Rapidly Responds to DNA Damage. <i>PLoS ONE</i> , 2016, 11, e0155492.	1.1	27
52	Sampling Unfolding Intermediates in Calmodulin by Single-Molecule Spectroscopy. <i>Journal of the American Chemical Society</i> , 2005, 127, 12107-12114.	6.6	26
53	Acetylation of the SUN protein Mps3 by Eco1 regulates its function in nuclear organization. <i>Molecular Biology of the Cell</i> , 2012, 23, 2546-2559.	0.9	26
54	Conformational Flexibility, Hydration and State Parameter Fluctuations of Fibroblast Growth Factor-10: Effects of Ligand Binding. <i>Biochemistry</i> , 2006, 45, 15288-15300.	1.2	25

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55	Distribution of Proteins at the Inner Nuclear Membrane Is Regulated by the Asi1 E3 Ligase in <i>Saccharomyces cerevisiae</i> . <i>Genetics</i> , 2019, 211, 1269-1282.	1.2	25
56	Gamma-Tubulin Is Required for Bipolar Spindle Assembly and for Proper Kinetochores Microtubule Attachments during Prometaphase I in <i>Drosophila</i> Oocytes. <i>PLoS Genetics</i> , 2011, 7, e1002209.	1.5	24
57	Assembly of the Elongin A Ubiquitin Ligase Is Regulated by Genotoxic and Other Stresses. <i>Journal of Biological Chemistry</i> , 2015, 290, 15030-15041.	1.6	24
58	Fluorescence Properties of Fluorescein, Tetramethylrhodamine, and Texas Red linked to a DNA Aptamer. <i>Photochemistry and Photobiology</i> , 2005, 81, 682-90.	1.3	19
59	Tyrosyl Rotamer Interconversion Rates and the Fluorescence Decays of N-Acetyltyrosinamide and Short Tyrosyl Peptides. <i>Journal of Physical Chemistry B</i> , 2007, 111, 5494-5502.	1.2	16
60	Intracellular chloride concentration of the mouse vomeronasal neuron. <i>BMC Neuroscience</i> , 2015, 16, 90.	0.8	16
61	Cockayne syndrome B protein regulates recruitment of the Elongin A ubiquitin ligase to sites of DNA damage. <i>Journal of Biological Chemistry</i> , 2017, 292, 6431-6437.	1.6	16
62	Effects of Ligand Binding and Oxidation on Hinge-Bending Motions in S-Adenosyl-L-homocysteine Hydrolase. <i>Biochemistry</i> , 2006, 45, 7778-7786.	1.2	15
63	Reorientations of Aromatic Amino Acids and Their Side Chain Models: Anisotropy Measurements and Molecular Dynamics Simulations. <i>Journal of Physical Chemistry A</i> , 2010, 114, 133-142.	1.1	15
64	Spectroscopy and Photophysics of Indoline and Indoline-2-Carboxylic Acid. <i>Journal of Physical Chemistry A</i> , 2003, 107, 5660-5669.	1.1	14
65	Conformational Heterogeneity of a Leucine Enkephalin Analogue in Aqueous Solution and Sodium Dodecyl Sulfate Micelles: Comparison of Time-Resolved FRET and Molecular Dynamics Simulations. <i>Journal of Physical Chemistry B</i> , 2009, 113, 14381-14392.	1.2	13
66	Quantitative analysis of nuclear pore complex organization in <i>Schizosaccharomyces pombe</i> . <i>Life Science Alliance</i> , 2022, 5, e202201423.	1.3	13
67	Karyotyping human and mouse cells using probes from single-sorted chromosomes and open source software. <i>BioTechniques</i> , 2015, 59, 335-346.	0.8	12
68	The stoichiometry of the outer kinetochore is modulated by microtubule-proximal regulatory factors. <i>Journal of Cell Biology</i> , 2019, 218, 2124-2135.	2.3	12
69	Proteome plasticity in response to persistent environmental change. <i>Molecular Cell</i> , 2021, 81, 3294-3309.e12.	4.5	12
70	Fluorescence Fluctuation Spectroscopy and Imaging Methods for Examination of Dynamic Protein Interactions in Yeast. <i>Methods in Molecular Biology</i> , 2011, 759, 283-306.	0.4	12
71	Sec66-Dependent Regulation of Yeast Spindle-Pole Body Duplication Through Pom152. <i>Genetics</i> , 2015, 201, 1479-1495.	1.2	11
72	$\beta$ -Catenin and Associated Proteins Regulate Lineage Differentiation in Ground State Mouse Embryonic Stem Cells. <i>Stem Cell Reports</i> , 2020, 15, 662-676.	2.3	11

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73	Fluorescence Properties of Fluorescein, Tetramethylrhodamine and Texas Red Linked to a DNA Aptamer. <i>Photochemistry and Photobiology</i> , 2005, 81, 682-690.	1.3	10
74	Functional Analysis of the Yeast LINC Complex Using Fluctuation Spectroscopy and Super-Resolution Imaging. <i>Methods in Molecular Biology</i> , 2018, 1840, 137-161.	0.4	10
75	X chromosome and autosomal recombination are differentially sensitive to disruptions in SC maintenance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 21641-21650.	3.3	10
76	Evaluation of a femtosecond fiber laser for two-photon fluorescence correlation spectroscopy. <i>Microscopy Research and Technique</i> , 2006, 69, 891-893.	1.2	9
77	The budding yeast RSC complex maintains ploidy by promoting spindle pole body insertion. <i>Journal of Cell Biology</i> , 2018, 217, 2445-2462.	2.3	9
78	Amyloid-like Assembly Activates a Phosphatase in the Developing Drosophila Embryo. <i>Cell</i> , 2019, 178, 1403-1420.e21.	13.5	9
79	Dopamine receptor antagonists as potential therapeutic agents for ADPKD. <i>PLoS ONE</i> , 2019, 14, e0216220.	1.1	9
80	Fluorescence correlation spectroscopy as tool for high-content-screening in yeast (HCS-FCS). <i>Proceedings of SPIE</i> , 2011, , .	0.8	8
81	Driving integrative structural modeling with serial capture affinity purification. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 31861-31870.	3.3	8
82	BAC Modification through Serial or Simultaneous Use of CRE/Lox Technology. <i>Journal of Biomedicine and Biotechnology</i> , 2011, 2011, 1-12.	3.0	7
83	Mechanism of interaction of PTP $\beta$ with membranes: Conformational changes in the C-terminus associated with membrane binding. <i>Archives of Biochemistry and Biophysics</i> , 2005, 444, 112-120.	1.4	6
84	Quality Control: Putting Protein Aggregates in a Bind. <i>Current Biology</i> , 2013, 23, R74-R76.	1.8	6
85	Correction of bleaching artifacts in high content fluorescence correlation spectroscopy (HCS-FCS) data. <i>Proceedings of SPIE</i> , 2013, , .	0.8	6
86	Imaging-based assays for investigating functions of the RNA polymerase II elongation factor Elongin and the Elongin ubiquitin ligase. <i>Methods</i> , 2019, 159-160, 157-164.	1.9	6
87	Redistribution of centrosomal proteins by centromeres and Polo kinase controls partial nuclear envelope breakdown in fission yeast. <i>Molecular Biology of the Cell</i> , 2021, 32, 1487-1500.	0.9	6
88	A nucleation barrier spring-loads the CBM signalosome for binary activation. <i>ELife</i> , 0, 11, .	2.8	6
89	Fluorescence Probes of Protein Dynamics and Conformations in Freely Diffusing Molecules. , 2006, , 239-259.		5
90	Orderly assembly underpinning built-in asymmetry in the yeast centrosome duplication cycle requires cyclin-dependent kinase. <i>ELife</i> , 2020, 9, .	2.8	5

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91	Imaging methodologies for systems biology. <i>Cell Adhesion and Migration</i> , 2014, 8, 468-477.	1.1	3
92	A role for the Cockayne Syndrome B (CSB)-Elongin ubiquitin ligase complex in signal-dependent RNA polymerase II transcription. <i>Journal of Biological Chemistry</i> , 2021, 297, 100862.	1.6	3
93	Multiple roles for PARP1 in ALC1-dependent nucleosome remodeling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	3
94	A distinct inner nuclear membrane proteome in <i>Saccharomyces cerevisiae</i> gametes. <i>G3: Genes, Genomes, Genetics</i> , 2021, 11, .	0.8	3
95	Super-resolution Microscopy-based Bimolecular Fluorescence Complementation to Study Protein Complex Assembly and Co-localization. <i>Bio-protocol</i> , 2020, 10, e3524.	0.2	2
96	Tyrosine and peptide reorientational mobility in polymer solutions: Time-dependent fluorescence anisotropy measurements. <i>Biopolymers</i> , 2003, 69, 351-362.	1.2	1
97	Mitochondrial Origin of Cytosolic Protein Aggregation. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
98	Planarian Ovary Dissection for Ultrastructural Analysis and Antibody Staining. <i>Journal of Visualized Experiments</i> , 2021, , .	0.2	0
99	To activate or destroy: regulation of the RNA Pol II elongation factor and ubiquitin ligase Elongin (550.3). <i>FASEB Journal</i> , 2014, 28, 550.3.	0.2	0
100	Synaptonemal Complex Architecture Facilitates Chromosome-specific Regulation of Recombination in <i>Drosophila</i> . <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
101	Amyloid-Like Assembly During Embryogenesis Activates Herzog, a Novel Prion-Like Phosphatase. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
102	Using Spatial Transcriptomics to Reveal Fetal Liver Hematopoietic Stem Cell-Niche Interactions. <i>Blood</i> , 2021, 138, 3284-3284.	0.6	0
103	A High-throughput Automated ELISA Assay for Detection of IgG Antibodies to the SARS-CoV-2 Spike Protein. <i>Bio-protocol</i> , 2022, 12, e4301.	0.2	0
104	Structure of a pathologic amyloid nucleus determined by rational genetic deconstruction of an intracellular nucleation barrier. <i>FASEB Journal</i> , 2022, 36, .	0.2	0