

H Steven Wiley

List of Publications by Year in descending order

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105
papers

8,515
citations

46918

47
h-index

48187

88
g-index

109
all docs

109
docs citations

109
times ranked

9184
citing authors

#	ARTICLE	IF	CITATIONS
1	Identification of Proteins in Human Cytomegalovirus (HCMV) Particles: the HCMV Proteome. <i>Journal of Virology</i> , 2004, 78, 10960-10966.	1.5	521
2	The Enhanced Tumorigenic Activity of a Mutant Epidermal Growth Factor Receptor Common in Human Cancers Is Mediated by Threshold Levels of Constitutive Tyrosine Phosphorylation and Unattenuated Signaling. <i>Journal of Biological Chemistry</i> , 1997, 272, 2927-2935.	1.6	502
3	Flow-cytometric isolation of human antibodies from a nonimmune <i>Saccharomyces cerevisiae</i> surface display library. <i>Nature Biotechnology</i> , 2003, 21, 163-170.	9.4	462
4	Functional independence of the epidermal growth factor receptor from a domain required for ligand-induced internalization and calcium regulation. <i>Cell</i> , 1989, 59, 33-43.	13.5	424
5	Regulation of Epidermal Growth Factor Receptor Signaling by Endocytosis and Intracellular Trafficking. <i>Molecular Biology of the Cell</i> , 2001, 12, 1897-1910.	0.9	333
6	Computational modeling of the EGF-receptor system: a paradigm for systems biology. <i>Trends in Cell Biology</i> , 2003, 13, 43-50.	3.6	328
7	Trafficking of the ErbB receptors and its influence on signaling. <i>Experimental Cell Research</i> , 2003, 284, 78-88.	1.2	318
8	ErbB-2 Amplification Inhibits Down-regulation and Induces Constitutive Activation of Both ErbB-2 and Epidermal Growth Factor Receptors. <i>Journal of Biological Chemistry</i> , 1999, 274, 8865-8874.	1.6	293
9	Predicting Species-Resolved Macronutrient Acquisition during Succession in a Model Phototrophic Biofilm Using an Integrated Omics Approach. <i>Frontiers in Microbiology</i> , 2017, 8, 1020.	1.5	287
10	Metalloprotease-mediated ligand release regulates autocrine signaling through the epidermal growth factor receptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999, 96, 6235-6240.	3.3	241
11	A steady state model for analyzing the cellular binding, internalization and degradation of polypeptide ligands. <i>Cell</i> , 1981, 25, 433-440.	13.5	229
12	Regulation of Receptor Tyrosine Kinase Signaling by Endocytic Trafficking. <i>Traffic</i> , 2001, 2, 12-18.	1.3	228
13	Rapid and sustained nuclear cytoplasmic ERK oscillations induced by epidermal growth factor. <i>Molecular Systems Biology</i> , 2009, 5, 332.	3.2	216
14	An Integrated Model of Epidermal Growth Factor Receptor Trafficking and Signal Transduction. <i>Biophysical Journal</i> , 2003, 85, 730-743.	0.2	159
15	Quantitative Analysis of HER2-mediated Effects on HER2 and Epidermal Growth Factor Receptor Endocytosis. <i>Journal of Biological Chemistry</i> , 2003, 278, 23343-23351.	1.6	158
16	Endocytosis and Lysosomal Targeting of Epidermal Growth Factor Receptors Are Mediated by Distinct Sequences Independent of the Tyrosine Kinase Domain. <i>Journal of Biological Chemistry</i> , 1995, 270, 4325-4333.	1.6	135
17	Internalized Epidermal Growth Factor Receptors Participate in the Activation of p21 in Fibroblasts. <i>Journal of Biological Chemistry</i> , 1999, 274, 34350-34360.	1.6	134
18	Characterization and improvement of RNA-Seq precision in quantitative transcript expression profiling. <i>Bioinformatics</i> , 2011, 27, i383-i391.	1.8	119

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19	Conservation of protein abundance patterns reveals the regulatory architecture of the EGFR-MAPK pathway. <i>Science Signaling</i> , 2016, 9, rs6.	1.6	119
20	Investigating the correspondence between transcriptomic and proteomic expression profiles using coupled cluster models. <i>Bioinformatics</i> , 2008, 24, 2894-2900.	1.8	117
21	Cholesterol Dictates the Freedom of EGF Receptors and HER2 in the Plane of the Membrane. <i>Biophysical Journal</i> , 2005, 89, 1362-1373.	0.2	116
22	Spatial Range of Autocrine Signaling: Modeling and Computational Analysis. <i>Biophysical Journal</i> , 2001, 81, 1854-1867.	0.2	113
23	Coregulation of epidermal growth factor receptor/human epidermal growth factor receptor 2 (HER2) levels and locations: quantitative analysis of HER2 overexpression effects. <i>Cancer Research</i> , 2003, 63, 1130-7.	0.4	111
24	New methods for the purification of vertebrate vitellogenin. <i>Analytical Biochemistry</i> , 1979, 97, 145-152.	1.1	108
25	Effect of Epidermal Growth Factor Receptor Internalization on Regulation of the Phospholipase C- β 1 Signaling Pathway. <i>Journal of Biological Chemistry</i> , 1999, 274, 8958-8965.	1.6	104
26	Engineering epidermal growth factor for enhanced mitogenic potency. <i>Nature Biotechnology</i> , 1996, 14, 1696-1699.	9.4	97
27	Autocrine HBEGF expression promotes breast cancer intravasation, metastasis and macrophage-independent invasion in vivo. <i>Oncogene</i> , 2014, 33, 3784-3793.	2.6	85
28	Ligand-induced endocytosis of epidermal growth factor receptors that are defective in binding adaptor proteins.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1995, 92, 8719-8723.	3.3	83
29	EGF-receptor-mediated mammary epithelial cell migration is driven by sustained ERK signaling from autocrine stimulation. <i>Journal of Cell Science</i> , 2007, 120, 3688-3699.	1.2	82
30	Quantitative analysis of the EGF receptor autocrine system reveals cryptic regulation of cell response by ligand capture. <i>Journal of Cell Science</i> , 2001, 114, 2301-2313.	1.2	78
31	Autocrine epidermal growth factor signaling stimulates directionally persistent mammary epithelial cell migration. <i>Journal of Cell Biology</i> , 2001, 155, 1123-1128.	2.3	76
32	Cell Surface Receptors for Signal Transduction and Ligand Transport: A Design Principles Study. <i>PLoS Computational Biology</i> , 2007, 3, e101.	1.5	75
33	Inference of interactions in cyanobacterial "heterotrophic co-cultures via transcriptome sequencing. <i>ISME Journal</i> , 2014, 8, 2243-2255.	4.4	75
34	Receptor-Driven ERK Pulses Reconfigure MAPK Signaling and Enable Persistence of Drug-Adapted BRAF-Mutant Melanoma Cells. <i>Cell Systems</i> , 2020, 11, 478-494.e9.	2.9	71
35	Trafficking and Proteolytic Release of Epidermal Growth Factor Receptor Ligands Are Modulated by Their Membrane-anchoring Domains. <i>Journal of Biological Chemistry</i> , 2000, 275, 557-564.	1.6	68
36	Differential signaling and regulation of apical vs. basolateral EGFR in polarized epithelial cells. <i>American Journal of Physiology - Cell Physiology</i> , 1998, 275, C1419-C1428.	2.1	65

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37	Amphiregulin acts as an autocrine growth factor in two human polarizing colon cancer lines that exhibit domain selective EGF receptor mitogenesis. <i>British Journal of Cancer</i> , 1999, 80, 1012-1019.	2.9	64
38	Receptor downregulation and desensitization enhance the information processing ability of signalling receptors. <i>BMC Systems Biology</i> , 2007, 1, 48.	3.0	64
39	Parsing ERK Activation Reveals Quantitatively Equivalent Contributions from Epidermal Growth Factor Receptor and HER2 in Human Mammary Epithelial Cells. <i>Journal of Biological Chemistry</i> , 2005, 280, 6157-6169.	1.6	63
40	HER2-Mediated Effects on EGFR Endosomal Sorting: Analysis of Biophysical Mechanisms. <i>Biophysical Journal</i> , 2003, 85, 2732-2745.	0.2	62
41	Modeling the Effects of HER/ErbB1-3 Coexpression on Receptor Dimerization and Biological Response. <i>Biophysical Journal</i> , 2006, 90, 3993-4009.	0.2	62
42	Removal of the Membrane-anchoring Domain of Epidermal Growth Factor Leads to Intracrine Signaling and Disruption of Mammary Epithelial Cell Organization. <i>Journal of Cell Biology</i> , 1998, 143, 1317-1328.	2.3	55
43	Probability-Weighted Dynamic Monte Carlo Method for Reaction Kinetics Simulations. <i>Journal of Physical Chemistry B</i> , 2001, 105, 11026-11034.	1.2	55
44	Real-time quantitative measurement of autocrine ligand binding indicates that autocrine loops are spatially localized. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 15368-15373.	3.3	54
45	Multiple Mechanisms Are Responsible for Transactivation of the Epidermal Growth Factor Receptor in Mammary Epithelial Cells. <i>Journal of Biological Chemistry</i> , 2008, 283, 31477-31487.	1.6	53
46	Self-Organization of Polarized Cell Signaling via Autocrine Circuits: Computational Model Analysis. <i>Biophysical Journal</i> , 2004, 86, 10-22.	0.2	52
47	An Extensive Survey of Tyrosine Phosphorylation Revealing New Sites in Human Mammary Epithelial Cells. <i>Journal of Proteome Research</i> , 2009, 8, 3852-3861.	1.8	51
48	Induced Autocrine Signaling through the Epidermal Growth Factor Receptor Contributes to the Response of Mammary Epithelial Cells to Tumor Necrosis Factor α . <i>Journal of Biological Chemistry</i> , 2004, 279, 18488-18496.	1.6	48
49	Achieving Molecular Selectivity in Imaging Using Multiphoton Raman Spectroscopy Techniques. <i>Traffic</i> , 2001, 2, 781-788.	1.3	47
50	Changes in translational efficiency is a dominant regulatory mechanism in the environmental response of bacteria. <i>Integrative Biology (United Kingdom)</i> , 2013, 5, 1393.	0.6	46
51	Surfactant-assisted one-pot sample preparation for label-free single-cell proteomics. <i>Communications Biology</i> , 2021, 4, 265.	2.0	46
52	Enabling high-throughput data management for systems biology: The Bioinformatics Resource Manager. <i>Bioinformatics</i> , 2007, 23, 906-909.	1.8	45
53	The heparin-binding domain of HB-EGF mediates localization to sites of cell-cell contact and prevents HB-EGF proteolytic release. <i>Journal of Cell Science</i> , 2010, 123, 2308-2318.	1.2	40
54	Human mammary epithelial cells rapidly exchange empty EGFR between surface and intracellular pools. <i>Journal of Cell Biology</i> , 1999, 180, 448-460.		39

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55	Targeted Quantification of Phosphorylation Dynamics in the Context of EGFR-MAPK Pathway. <i>Analytical Chemistry</i> , 2018, 90, 5256-5263.	3.2	39
56	Ligand Accumulation in Autocrine Cell Cultures. <i>Biophysical Journal</i> , 2005, 88, 2384-2390.	0.2	38
57	Network Analysis of Epidermal Growth Factor Signaling Using Integrated Genomic, Proteomic and Phosphorylation Data. <i>PLoS ONE</i> , 2012, 7, e34515.	1.1	37
58	Structural Aspects of the Epidermal Growth Factor Receptor Required for Transmodulation of erbB-2/neu. <i>Journal of Biological Chemistry</i> , 1997, 272, 8594-8601.	1.6	36
59	Epidermal growth factor stimulates fluid phase endocytosis in human fibroblasts through a signal generated at the cell surface. <i>Journal of Cellular Biochemistry</i> , 1982, 19, 383-394.	1.2	34
60	Reassessment of fluid-phase endocytosis and diacytosis in monolayer cultures of human fibroblasts. <i>Journal of Cellular Physiology</i> , 1988, 136, 389-397.	2.0	34
61	HER/ErbB receptor interactions and signaling patterns in human mammary epithelial cells. <i>BMC Cell Biology</i> , 2009, 10, 78.	3.0	34
62	Oscillatory dynamics of the extracellular signal-regulated kinase pathway. <i>Current Opinion in Genetics and Development</i> , 2010, 20, 650-655.	1.5	34
63	Sensitive Targeted Quantification of ERK Phosphorylation Dynamics and Stoichiometry in Human Cells without Affinity Enrichment. <i>Analytical Chemistry</i> , 2015, 87, 1103-1110.	3.2	32
64	The Membrane-anchoring Domain of Epidermal Growth Factor Receptor Ligands Dictates Their Ability to Operate in Juxtacrine Mode. <i>Molecular Biology of the Cell</i> , 2005, 16, 2984-2998.	0.9	31
65	Coregulation of Terpenoid Pathway Genes and Prediction of Isoprene Production in <i>Bacillus subtilis</i> Using Transcriptomics. <i>PLoS ONE</i> , 2013, 8, e66104.	1.1	30
66	The Mammary Epithelial Cell Secretome and Its Regulation by Signal Transduction Pathways. <i>Journal of Proteome Research</i> , 2008, 7, 558-569.	1.8	29
67	Chapter 9 Receptors as Models for the Mechanisms of Membrane Protein Turnover and Dynamics. <i>Current Topics in Membranes and Transport</i> , 1985, 24, 369-412.	0.6	28
68	A General System for Studying Protein-Protein Interactions in Gram-Negative Bacteria. <i>Journal of Proteome Research</i> , 2008, 7, 3319-3328.	1.8	24
69	Basic Fibroblast Growth Factor Regulates Persistent ERK Oscillations in Premalignant but Not Malignant JB6 Cells. <i>Journal of Investigative Dermatology</i> , 2010, 130, 1444-1456.	0.3	24
70	Carrier-Assisted Single-Tube Processing Approach for Targeted Proteomics Analysis of Low Numbers of Mammalian Cells. <i>Analytical Chemistry</i> , 2019, 91, 1441-1451.	3.2	24
71	Structure of the EGF receptor transactivation circuit integrates multiple signals with cell context. <i>Molecular BioSystems</i> , 2010, 6, 1293.	2.9	23
72	Facile carrier-assisted targeted mass spectrometric approach for proteomic analysis of low numbers of mammalian cells. <i>Communications Biology</i> , 2018, 1, 103.	2.0	21

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73	Affinity regulates spatial range of EGF receptor autocrine ligand binding. <i>Developmental Biology</i> , 2002, 250, 305-16.	0.9	19
74	Simple Protein Complex Purification and Identification Method for High-Throughput Mapping of Protein Interaction Networks. <i>Journal of Proteome Research</i> , 2005, 4, 268-274.	1.8	17
75	Integrating Multiple Types of Data for Signaling Research: Challenges and Opportunities. <i>Science Signaling</i> , 2011, 4, pe9.	1.6	17
76	Ratiometric Assay of Epidermal Growth Factor Receptor Tyrosine Kinase Activation. <i>Analytical Biochemistry</i> , 2000, 277, 135-142.	1.1	16
77	Should software hold data hostage?. <i>Nature Biotechnology</i> , 2004, 22, 1037-1038.	9.4	16
78	Integrated experimental and model-based analysis reveals the spatial aspects of EGFR activation dynamics. <i>Molecular BioSystems</i> , 2012, 8, 2868.	2.9	15
79	Epidermal growth factor binding and trafficking dynamics in fibroblasts: relationship to cell proliferation. <i>Chemical Engineering Science</i> , 1990, 45, 2367-2373.	1.9	14
80	Molecular/cell engineering approach to autocrine ligand control of cell function. <i>Annals of Biomedical Engineering</i> , 1995, 23, 208-215.	1.3	14
81	Studies on Engineered Autocrine Systems: Requirements for Ligand Release from Cells Producing an Artificial Growth Factor. <i>Tissue Engineering</i> , 1995, 1, 81-94.	4.9	13
82	Engineering dynamics of growth factors and other therapeutic ligands. , 1996, 52, 61-80.		12
83	A systems perspective of heterocellular signaling. <i>Essays in Biochemistry</i> , 2018, 62, 607-617.	2.1	12
84	Facile One-Pot Nanoproteomics for Label-Free Proteome Profiling of 50â€“1000 Mammalian Cells. <i>Journal of Proteome Research</i> , 2021, 20, 4452-4461.	1.8	12
85	Statistically Inferring Proteinâ”Protein Associations with Affinity Isolation LCâ”MS/MS Assays. <i>Journal of Proteome Research</i> , 2007, 6, 3788-3795.	1.8	11
86	Endocytic Relay as a Potential Means for Enhancing Ligand Transport through Cellular Tissue Matrices: Analysis and Possible Implications for Drug Delivery. <i>Tissue Engineering</i> , 1996, 2, 17-38.	4.9	10
87	Altered degradation of epidermal growth factor in a diphtheria toxin-resistant clone of KB cells. <i>Journal of Cellular Physiology</i> , 1985, 124, 322-330.	2.0	9
88	[39] Assay of growth factor stimulation of fluid-phase endocytosis. <i>Methods in Enzymology</i> , 1987, 146, 402-417.	0.4	9
89	Smad Signaling Dynamics: Insights from a Parsimonious Model. <i>Science Signaling</i> , 2008, 1, pe41.	1.6	8
90	A Model of Cytokine Shedding Induced by Low Doses of Gamma Radiation. <i>Radiation Research</i> , 2005, 163, 337-342.	0.7	7

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91	An enzymatic method for radiolabeling vertebrate vitellogenin. <i>Analytical Biochemistry</i> , 1984, 140, 372-379.	1.1	5
92	Epidermal growth factor receptor signaling in tissues. <i>IEEE Control Systems</i> , 2004, 24, 53-61.	1.0	5
93	High speed method for in situ multispectral image registration. <i>Microscopy Research and Technique</i> , 2007, 70, 382-389.	1.2	5
94	Open questions: The disrupted circuitry of the cancer cell. <i>BMC Biology</i> , 2014, 12, 88.	1.7	4
95	How low can you go?. <i>ELife</i> , 2018, 7, .	2.8	4
96	An analysis pipeline for the inference of protein-protein interaction networks. <i>International Journal of Data Mining and Bioinformatics</i> , 2009, 3, 409.	0.1	3
97	Microbial Diversity and Biogeochemical Function of the Phototrophic Microbial Mats of Epsomitic Hot Lake, WA. <i>Microscopy and Microanalysis</i> , 2012, 18, 10-11.	0.2	3
98	Improving RNA-Seq Precision with MapAI. <i>Frontiers in Genetics</i> , 2012, 3, 28.	1.1	3
99	Dynamics and Sensitivity of Signaling Pathways. <i>Current Pathobiology Reports</i> , 2022, 10, 11-22.	1.6	2
100	Structural and Functional Characterization of the Human Gene for Sorting Nexin 1 (SNX1). <i>DNA and Cell Biology</i> , 2001, 20, 287-296.	0.9	1
101	Trafficking of the ErbB receptors and its influence on signaling. , 2003, , 81-91.		1
102	Decoding Signal Processing at the Single-Cell Level. <i>Cell Systems</i> , 2017, 5, 542-543.	2.9	1
103	News. <i>IET Systems Biology</i> , 2005, 152, 53.	2.0	1
104	FRET measurements between small numbers of molecules identifies subtle changes in receptor interactions. , 2004, , .		0
105	<i>Science Signaling</i> Podcast for 12 July 2016: Adaptor proteins limit signaling. <i>Science Signaling</i> , 2016, 9, c16.	1.6	0