H Steven Wiley

List of Publications by Year
in descending order

105 papers	8,515 citations	47006 47 h-index	48315 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. Journal of Virology, 2004, 78, 10960-10966.	3.4	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. Journal of Biological Chemistry, 1997, 272, 2927-2935.	3.4	502
3	Flow-cytometric isolation of human antibodies from a nonimmune Saccharomyces cerevisiae surface display library. Nature Biotechnology, 2003, 21, 163-170.	17.5	462
4	Functional independence of the epidermal growth factor receptor from a domain required for ligand-induced internalization and calcium regulation. Cell, 1989, 59, 33-43.	28.9	424
5	Regulation of Epidermal Growth Factor Receptor Signaling by Endocytosis and Intracellular Trafficking. Molecular Biology of the Cell, 2001, 12, 1897-1910.	2.1	333
6	Computational modeling of the EGF-receptor system: a paradigm for systems biology. Trends in Cell Biology, 2003, 13, 43-50.	7.9	328
7	Trafficking of the ErbB receptors and its influence on signaling. Experimental Cell Research, 2003, 284, 78-88.	2.6	318
8	ErbB-2 Amplification Inhibits Down-regulation and Induces Constitutive Activation of Both ErbB-2 and Epidermal Growth Factor Receptors. Journal of Biological Chemistry, 1999, 274, 8865-8874.	3.4	293
9	Predicting Species-Resolved Macronutrient Acquisition during Succession in a Model Phototrophic Biofilm Using an Integrated â€˜Omics Approach. Frontiers in Microbiology, 2017, 8, 1020.	3.5	287
10	Metalloprotease-mediated ligand release regulates autocrine signaling through the epidermal growth factor receptor. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 6235-6240.	7.1	241
11	A steady state model for analyzing the cellular binding, internalization and degradation of polypeptide ligands. Cell, 1981, 25, 433-440.	28.9	229
12	Regulation of Receptor Tyrosine Kinase Signaling by Endocytic Trafficking. Traffic, 2001, 2, 12-18.	2.7	228
13	Rapid and sustained nuclearâ€“cytoplasmic ERK oscillations induced by epidermal growth factor. Molecular Systems Biology, 2009, 5, 332.	7.2	216
14	An Integrated Model of Epidermal Growth Factor Receptor Trafficking and Signal Transduction. Biophysical Journal, 2003, 85, 730-743.	0.5	159
15	Quantitative Analysis of HER2-mediated Effects on HER2 and Epidermal Growth Factor Receptor Endocytosis. Journal of Biological Chemistry, 2003, 278, 23343-23351.	3.4	158
16	Endocytosis and Lysosomal Targeting of Epidermal Growth Factor Receptors Are Mediated by Distinct Sequences Independent of the Tyrosine Kinase Domain. Journal of Biological Chemistry, 1995, 270, 4325-4333.	3.4	135
17	Internalized Epidermal Growth Factor Receptors Participate in the Activation of p21 in Fibroblasts. Journal of Biological Chemistry, 1999, 274, 34350-34360.	3.4	134
18	Characterization and improvement of RNA-Seq precision in quantitative transcript expression profiling. Bioinformatics, 2011, 27, i383-i391.	4.1	119

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19	Conservation of protein abundance patterns reveals the regulatory architecture of the EGFR-MAPK pathway. Science Signaling, 2016, 9, rs6.	3.6	119
20	Investigating the correspondence between transcriptomic and proteomic expression profiles using coupled cluster models. Bioinformatics, 2008, 24, 2894-2900.	4.1	117
21	Cholesterol Dictates the Freedom of EGF Receptors and HER2 in the Plane of the Membrane. Biophysical Journal, 2005, 89, 1362-1373.	0.5	116
22	Spatial Range of Autocrine Signaling: Modeling and Computational Analysis. Biophysical Journal, 2001, 81, 1854-1867.	0.5	113
23	Coregulation of epidermal growth factor receptor/human epidermal growth factor receptor 2 (HER2) levels and locations: quantitative analysis of HER2 overexpression effects. Cancer Research, 2003, 63, 1130-7.	0.9	111
24	New methods for the purification of vertebrate vitellogenin. Analytical Biochemistry, 1979, 97, 145-152.	2.4	108
25	Effect of Epidermal Growth Factor Receptor Internalization on Regulation of the Phospholipase C-Î³1 Signaling Pathway. Journal of Biological Chemistry, 1999, 274, 8958-8965.	3.4	104
26	Engineering epidermal growth factor for enhanced mitogenic potency. Nature Biotechnology, 1996, 14, 1696-1699.	17.5	97
27	Autocrine HBEGF expression promotes breast cancer intravasation, metastasis and macrophage-independent invasion in vivo. Oncogene, 2014, 33, 3784-3793.	5.9	85
28	Ligand-induced endocytosis of epidermal growth factor receptors that are defective in binding adaptor proteins.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 8719-8723.	7.1	83
29	EGF-receptor-mediated mammary epithelial cell migration is driven by sustained ERK signaling from autocrine stimulation. Journal of Cell Science, 2007, 120, 3688-3699.	2.0	82
30	Quantitative analysis of the EGF receptor autocrine system reveals cryptic regulation of cell response by ligand capture. Journal of Cell Science, 2001, 114, 2301-2313.	2.0	78
31	Autocrine epidermal growth factor signaling stimulates directionally persistent mammary epithelial cell migration. Journal of Cell Biology, 2001, 155, 1123-1128.	5.2	76
32	Cell Surface Receptors for Signal Transduction and Ligand Transport: A Design Principles Study. PLoS Computational Biology, 2007, 3, e101.	3.2	75
33	Inference of interactions in cyanobacterialâ€“heterotrophic co-cultures via transcriptome sequencing. ISME Journal, 2014, 8, 2243-2255.	9.8	75
34	Receptor-Driven ERK Pulses Reconfigure MAPK Signaling and Enable Persistence of Drug-Adapted BRAF-Mutant Melanoma Cells. Cell Systems, 2020, 11, 478-494.e9.	6.2	71
35	Trafficking and Proteolytic Release of Epidermal Growth Factor Receptor Ligands Are Modulated by Their Membrane-anchoring Domains. Journal of Biological Chemistry, 2000, 275, 557-564.	3.4	68
36	Differential signaling and regulation of apical vs. basolateral EGFR in polarized epithelial cells. American Journal of Physiology - Cell Physiology, 1998, 275, C1419-C1428.	4.6	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. British Journal of Cancer, 1999, 80, 1012-1019.	6.4	64
38	Receptor downregulation and desensitization enhance the information processing ability of signalling receptors. BMC Systems Biology, 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. Journal of Biological Chemistry, 2005, 280, 6157-6169.	3.4	63
40	HER2-Mediated Effects on EGFR Endosomal Sorting: Analysis of Biophysical Mechanisms. Biophysical Journal, 2003, 85, 2732-2745.	0.5	62
41	Modeling the Effects of HER/ErbB1-3 Coexpression on Receptor Dimerization and Biological Response. Biophysical Journal, 2006, 90, 3993-4009.	0.5	62
42	Removal of the Membrane-anchoring Domain of Epidermal Growth Factor Leads to Intracrine Signaling and Disruption of Mammary Epithelial Cell Organization. Journal of Cell Biology, 1998, 143, 1317-1328.	5.2	55
43	Probability-Weighted Dynamic Monte Carlo Method for Reaction Kinetics Simulations. Journal of Physical Chemistry B, 2001, 105, 11026-11034.	2.6	55
44	Real-time quantitative measurement of autocrine ligand binding indicates that autocrine loops are spatially localized. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 15368-15373.	7.1	54
45	Multiple Mechanisms Are Responsible for Transactivation of the Epidermal Growth Factor Receptor in Mammary Epithelial Cells. Journal of Biological Chemistry, 2008, 283, 31477-31487.	3.4	53
46	Self-Organization of Polarized Cell Signaling via Autocrine Circuits: Computational Model Analysis. Biophysical Journal, 2004, 86, 10-22.	0.5	52
47	An Extensive Survey of Tyrosine Phosphorylation Revealing New Sites in Human Mammary Epithelial Cells. Journal of Proteome Research, 2009, 8, 3852-3861.	3.7	51
48	Induced Autocrine Signaling through the Epidermal Growth Factor Receptor Contributes to the Response of Mammary Epithelial Cells to Tumor Necrosis Factor Î±. Journal of Biological Chemistry, 2004, 279, 18488-18496.	3.4	48
49	Achieving Molecular Selectivity in Imaging Using Multiphoton Raman Spectroscopy Techniques. Traffic, 2001, 2, 781-788.	2.7	47
50	Changes in translational efficiency is a dominant regulatory mechanism in the environmental response of bacteria. Integrative Biology (United Kingdom), 2013, 5, 1393.	1.3	46
51	Surfactant-assisted one-pot sample preparation for label-free single-cell proteomics. Communications Biology, 2021, 4, 265.	4.4	46
52	Enabling high-throughput data management for systems biology: The Bioinformatics Resource Manager. Bioinformatics, 2007, 23, 906-909.	4.1	45
53	The heparin-binding domain of HB-EGF mediates localization to sites of cell-cell contact and prevents HB-EGF proteolytic release. Journal of Cell Science, 2010, 123, 2308-2318.	2.0	40
54	Human mammary epithelial cells rapidly exchange empty EGFR between surface and intracellular pools. , 1999, 180, 448-460.		39

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55	Targeted Quantification of Phosphorylation Dynamics in the Context of EGFR-MAPK Pathway. Analytical Chemistry, 2018, 90, 5256-5263.	6.5	39
56	Ligand Accumulation in Autocrine Cell Cultures. Biophysical Journal, 2005, 88, 2384-2390.	0.5	38
57	Network Analysis of Epidermal Growth Factor Signaling Using Integrated Genomic, Proteomic and Phosphorylation Data. PLoS ONE, 2012, 7, e34515.	2.5	37
58	Structural Aspects of the Epidermal Growth Factor Receptor Required for Transmodulation of erbB-2/neu. Journal of Biological Chemistry, 1997, 272, 8594-8601.	3.4	36
59	Epidermal growth factor stimulates fluid phase endocytosis in human fibroblasts through a signal generated at the cell surface. Journal of Cellular Biochemistry, 1982, 19, 383-394.	2.6	34
60	Reassessment of fluid-phase endocytosis and diacytosis in monolayer cultures of human fibroblasts. Journal of Cellular Physiology, 1988, 136, 389-397.	4.1	34
61	HER/ErbB receptor interactions and signaling patterns in human mammary epithelial cells. BMC Cell Biology, 2009, 10, 78.	3.0	34
62	Oscillatory dynamics of the extracellular signal-regulated kinase pathway. Current Opinion in Genetics and Development, 2010, 20, 650-655.	3.3	34
63	Sensitive Targeted Quantification of ERK Phosphorylation Dynamics and Stoichiometry in Human Cells without Affinity Enrichment. Analytical Chemistry, 2015, 87, 1103-1110.	6.5	32
64	The Membrane-anchoring Domain of Epidermal Growth Factor Receptor Ligands Dictates Their Ability to Operate in Juxtacrine Mode. Molecular Biology of the Cell, 2005, 16, 2984-2998.	2.1	31
65	Coregulation of Terpenoid Pathway Genes and Prediction of Isoprene Production in Bacillus subtilis Using Transcriptomics. PLoS ONE, 2013, 8, e66104.	2.5	30
66	The Mammary Epithelial Cell Secretome and Its Regulation by Signal Transduction Pathways. Journal of Proteome Research, 2008, 7, 558-569.	3.7	29
67	Chapter 9 Receptors as Models for the Mechanisms of Membrane Protein Turnover and Dynamics. Current Topics in Membranes and Transport, 1985, 24, 369-412.	0.6	28
68	A General System for Studying Proteinâ^'Protein Interactions in Gram-Negative Bacteria. Journal of Proteome Research, 2008, 7, 3319-3328.	3.7	24
69	Basic Fibroblast Growth Factor Regulates Persistent ERK Oscillations in Premalignant but Not Malignant JB6 Cells. Journal of Investigative Dermatology, 2010, 130, 1444-1456.	0.7	24
70	Carrier-Assisted Single-Tube Processing Approach for Targeted Proteomics Analysis of Low Numbers of Mammalian Cells. Analytical Chemistry, 2019, 91, 1441-1451.	6.5	24
71	Structure of the EGF receptor transactivation circuit integrates multiple signals with cell context. Molecular BioSystems, 2010, 6, 1293.	2.9	23
72	Facile carrier-assisted targeted mass spectrometric approach for proteomic analysis of low numbers of mammalian cells. Communications Biology, 2018, 1, 103.	4.4	21

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73	Affinity regulates spatial range of EGF receptor autocrine ligand binding. Developmental Biology, 2002, 250, 305-16.	2.0	19
74	Simple Protein Complex Purification and Identification Method for High-Throughput Mapping of Protein Interaction Networks. Journal of Proteome Research, 2005, 4, 268-274.	3.7	17
75	Integrating Multiple Types of Data for Signaling Research: Challenges and Opportunities. Science Signaling, 2011, 4, pe9.	3.6	17
76	Ratiometric Assay of Epidermal Growth Factor Receptor Tyrosine Kinase Activation. Analytical Biochemistry, 2000, 277, 135-142.	2.4	16
77	Should software hold data hostage?. Nature Biotechnology, 2004, 22, 1037-1038.	17.5	16
78	Integrated experimental and model-based analysis reveals the spatial aspects of EGFR activation dynamics. Molecular BioSystems, 2012, 8, 2868.	2.9	15
79	Epidermal growth factor binding and trafficking dynamics in fibroblasts: relationship to cell proliferation. Chemical Engineering Science, 1990, 45, 2367-2373.	3.8	14
80	Molecular/cell engineering approach to autocrine ligand control of cell function. Annals of Biomedical Engineering, 1995, 23, 208-215.	2.5	14
81	Studies on Engineered Autocrine Systems: Requirements for Ligand Release from Cells Producing an Artificial Growth Factor. Tissue Engineering, 1995, 1, 81-94.	4.6	13
82	Engineering dynamics of growth factors and other therapeutic ligands. , 1996, 52, 61-80.		12
83	A systems perspective of heterocellular signaling. Essays in Biochemistry, 2018, 62, 607-617.	4.7	12
84	Facile One-Pot Nanoproteomics for Label-Free Proteome Profiling of 50â€“1000 Mammalian Cells. Journal of Proteome Research, 2021, 20, 4452-4461.	3.7	12
85	Statistically Inferring Proteinâˆ’Protein Associations with Affinity Isolation LCâˆ’MS/MS Assays. Journal of Proteome Research, 2007, 6, 3788-3795.	3.7	11
86	Endocytic Relay as a Potential Means for Enhancing Ligand Transport through Cellular Tissue Matrices: Analysis and Possible Implications for Drug Delivery. Tissue Engineering, 1996, 2, 17-38.	4.6	10
87	Altered degradation of epidermal growth factor in a diphtheria toxin-resistant clone of KB cells. Journal of Cellular Physiology, 1985, 124, 322-330.	4.1	9
88	[39] Assay of growth factor stimulation of fluid-phase endocytosis. Methods in Enzymology, 1987, 146, 402-417.	1.0	9
89	Smad Signaling Dynamics: Insights from a Parsimonious Model. Science Signaling, 2008, 1, pe41.	3.6	8
90	A Model of Cytokine Shedding Induced by Low Doses of Gamma Radiation. Radiation Research, 2005, 163, 337-342.	1.5	7

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91	An enzymatic method for radiolabeling vertebrate vitellogenin. Analytical Biochemistry, 1984, 140, 372-379.	2.4	5
92	Epidermal growth factor receptor signaling in tissues. IEEE Control Systems, 2004, 24, 53-61.	0.8	5
93	High speed method for in situ multispectral image registration. Microscopy Research and Technique, 2007, 70, 382-389.	2.2	5
94	Open questions: The disrupted circuitry of the cancer cell. BMC Biology, 2014, 12, 88.	3.8	4
95	How low can you go?. ELife, 2018, 7, .	6.0	4
96	An analysis pipeline for the inference of protein-protein interaction networks. International Journal of Data Mining and Bioinformatics, 2009, 3, 409.	0.1	3
97	Microbial Diversity and Biogeochemical Function of the Phototrophic Microbial Mats of Epsomitic Hot Lake, WA. Microscopy and Microanalysis, 2012, 18, 10-11.	0.4	3
98	Improving RNA-Seq Precision with MapAl. Frontiers in Genetics, 2012, 3, 28.	2.3	3
99	Dynamics and Sensitivity of Signaling Pathways. Current Pathobiology Reports, 2022, 10, 11-22.	3.4	2
100	Structural and Functional Characterization of the Human Gene for Sorting Nexin 1 (SNX1). DNA and Cell Biology, 2001, 20, 287-296.	1.9	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. Cell Systems, 2017, 5, 542-543.	6.2	1
103	News. IET Systems Biology, 2005, 152, 53.	2.0	1
104	FRET measurements between small numbers of molecules identifies subtle changes in receptor interactions. , 2004, , .		0
105	Science Signaling Podcast for 12 July 2016: Adaptor proteins limit signaling. Science Signaling, 2016, 9, c16.	3.6	0