

Douglas A Lauffenburger

List of Publications by Year in descending order

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327
papers

34,673
citations

3721

89
h-index

4750

169
g-index

356
all docs

356
docs citations

356
times ranked

41668
citing authors

#	ARTICLE	IF	CITATIONS
1	Cell Migration: A Physically Integrated Molecular Process. <i>Cell</i> , 1996, 84, 359-369.	13.5	3,641
2	Integrin-ligand binding properties govern cell migration speed through cell-substratum adhesiveness. <i>Nature</i> , 1997, 385, 537-540.	13.7	1,292
3	Causal Protein-Signaling Networks Derived from Multiparameter Single-Cell Data. <i>Science</i> , 2005, 308, 523-529.	6.0	1,267
4	Migration of tumor cells in 3D matrices is governed by matrix stiffness along with cell-matrix adhesion and proteolysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 10889-10894.	3.3	1,029
5	Correlates of protection against SARS-CoV-2 in rhesus macaques. <i>Nature</i> , 2021, 590, 630-634.	13.7	995
6	Single-shot Ad26 vaccine protects against SARS-CoV-2 in rhesus macaques. <i>Nature</i> , 2020, 586, 583-588.	13.7	765
7	Physicochemical modelling of cell signalling pathways. <i>Nature Cell Biology</i> , 2006, 8, 1195-1203.	4.6	558
8	A Systems Model of Signaling Identifies a Molecular Basis Set for Cytokine-Induced Apoptosis. <i>Science</i> , 2005, 310, 1646-1653.	6.0	506
9	Time-resolved Mass Spectrometry of Tyrosine Phosphorylation Sites in the Epidermal Growth Factor Receptor Signaling Network Reveals Dynamic Modules. <i>Molecular and Cellular Proteomics</i> , 2005, 4, 1240-1250.	2.5	494
10	Vector unpacking as a potential barrier for receptor-mediated polyplex gene delivery. , 2000, 67, 598-606.		469
11	A Functional Role for Antibodies in Tuberculosis. <i>Cell</i> , 2016, 167, 433-443.e14.	13.5	461
12	Genital Inflammation and the Risk of HIV Acquisition in Women. <i>Clinical Infectious Diseases</i> , 2015, 61, 260-269.	2.9	354
13	Cutting to the chase: calpain proteases in cell motility. <i>Trends in Cell Biology</i> , 2002, 12, 46-54.	3.6	350
14	Interconnected Microphysiological Systems for Quantitative Biology and Pharmacology Studies. <i>Scientific Reports</i> , 2018, 8, 4530.	1.6	341
15	Regulation of Cell Migration by the Calcium-dependent Protease Calpain. <i>Journal of Biological Chemistry</i> , 1997, 272, 32719-32722.	1.6	338
16	Distinct Early Serological Signatures Track with SARS-CoV-2 Survival. <i>Immunity</i> , 2020, 53, 524-532.e4.	6.6	334
17	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
18	Dissecting Polyclonal Vaccine-Induced Humoral Immunity against HIV Using Systems Serology. <i>Cell</i> , 2015, 163, 988-998.	13.5	326

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19	Analysis of Single-Cell RNA-Seq Identifies Cell-Cell Communication Associated with Tumor Characteristics. <i>Cell Reports</i> , 2018, 25, 1458-1468.e4.	2.9	315
20	Discrete logic modelling as a means to link protein signalling networks with functional analysis of mammalian signal transduction. <i>Molecular Systems Biology</i> , 2009, 5, 331.	3.2	308
21	Logic-Based Models for the Analysis of Cell Signaling Networks. <i>Biochemistry</i> , 2010, 49, 3216-3224.	1.2	306
22	Polyfunctional responses by human T cells result from sequential release of cytokines. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 1607-1612.	3.3	288
23	Ad26 vaccine protects against SARS-CoV-2 severe clinical disease in hamsters. <i>Nature Medicine</i> , 2020, 26, 1694-1700.	15.2	275
24	Oncogenic KRAS Regulates Tumor Cell Signaling via Stromal Reciprocation. <i>Cell</i> , 2016, 165, 910-920.	13.5	267
25	Compromised Humoral Functional Evolution Tracks with SARS-CoV-2 Mortality. <i>Cell</i> , 2020, 183, 1508-1519.e12.	13.5	263
26	Immunogenicity of the Ad26.COVS.S Vaccine for COVID-19. <i>JAMA - Journal of the American Medical Association</i> , 2021, 325, 1535.	3.8	260
27	Self-Assembly of a β -Sheet Protein Governed by Relief of Electrostatic Repulsion Relative to van der Waals Attraction. <i>Biomacromolecules</i> , 2000, 1, 627-631.	2.6	258
28	Control of self-assembling oligopeptide matrix formation through systematic variation of amino acid sequence. <i>Biomaterials</i> , 2002, 23, 219-227.	5.7	248
29	A Mena Invasion Isoform Potentiates EGF-Induced Carcinoma Cell Invasion and Metastasis. <i>Developmental Cell</i> , 2008, 15, 813-828.	3.1	242
30	Epidermal Growth Factor Receptor Activation of Calpain Is Required for Fibroblast Motility and Occurs via an ERK/MAP Kinase Signaling Pathway. <i>Journal of Biological Chemistry</i> , 2000, 275, 2390-2398.	1.6	240
31	The Receptor AXL Diversifies EGFR Signaling and Limits the Response to EGFR-Targeted Inhibitors in Triple-Negative Breast Cancer Cells. <i>Science Signaling</i> , 2013, 6, ra66.	1.6	236
32	Effects of HER2 overexpression on cell signaling networks governing proliferation and migration. <i>Molecular Systems Biology</i> , 2006, 2, 54.	3.2	217
33	Robustness and applicability of transcription factor and pathway analysis tools on single-cell RNA-seq data. <i>Genome Biology</i> , 2020, 21, 36.	3.8	216
34	Transforming Boolean models to continuous models: methodology and application to T-cell receptor signaling. <i>BMC Systems Biology</i> , 2009, 3, 98.	3.0	212
35	Increased levels of inflammatory cytokines in the female reproductive tract are associated with altered expression of proteases, mucosal barrier proteins, and an influx of HIV-susceptible target cells. <i>Mucosal Immunology</i> , 2016, 9, 194-205.	2.7	205
36	A multiplexed homogeneous fluorescence-based assay for protein kinase activity in cell lysates. <i>Nature Methods</i> , 2005, 2, 277-284.	9.0	202

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37	Intracellular Trafficking of Epidermal Growth Factor Family Ligands Is Directly Influenced by the pH Sensitivity of the Receptor/Ligand Interaction. <i>Journal of Biological Chemistry</i> , 1995, 270, 4334-4340.	1.6	201
38	CellNOptR: a flexible toolkit to train protein signaling networks to data using multiple logic formalisms. <i>BMC Systems Biology</i> , 2012, 6, 133.	3.0	198
39	The Response of Human Epithelial Cells to TNF Involves an Inducible Autocrine Cascade. <i>Cell</i> , 2006, 124, 1225-1239.	13.5	188
40	Membrane Proximal ERK Signaling Is Required for M-calpain Activation Downstream of Epidermal Growth Factor Receptor Signaling. <i>Journal of Biological Chemistry</i> , 2001, 276, 23341-23348.	1.6	186
41	IFN- γ -independent immune markers of Mycobacterium tuberculosis exposure. <i>Nature Medicine</i> , 2019, 25, 977-987.	15.2	186
42	Common effector processing mediates cell-specific responses to stimuli. <i>Nature</i> , 2007, 448, 604-608.	13.7	183
43	A Role for Fc Function in Therapeutic Monoclonal Antibody-Mediated Protection against Ebola Virus. <i>Cell Host and Microbe</i> , 2018, 24, 221-233.e5.	5.1	182
44	Quick COVID-19 Healers Sustain Anti-SARS-CoV-2 Antibody Production. <i>Cell</i> , 2020, 183, 1496-1507.e16.	13.5	182
45	Building with a scaffold: emerging strategies for high- to low-level cellular modeling. <i>Trends in Biotechnology</i> , 2003, 21, 255-262.	4.9	171
46	Targeting tumor cell motility as a strategy against invasion and metastasis. <i>Trends in Pharmacological Sciences</i> , 2013, 34, 283-289.	4.0	171
47	Compromised SARS-CoV-2-specific placental antibody transfer. <i>Cell</i> , 2021, 184, 628-642.e10.	13.5	167
48	Tumor Cell-Driven Extracellular Matrix Remodeling Drives Haptotaxis during Metastatic Progression. <i>Cancer Discovery</i> , 2016, 6, 516-531.	7.7	164
49	Mena invasive (MenalNV) promotes multicellular streaming motility and transendothelial migration in a mouse model of breast cancer. <i>Journal of Cell Science</i> , 2011, 124, 2120-2131.	1.2	163
50	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
51	Fc Glycan-Mediated Regulation of Placental Antibody Transfer. <i>Cell</i> , 2019, 178, 202-215.e14.	13.5	157
52	Acidification of Tumor at Stromal Boundaries Drives Transcriptome Alterations Associated with Aggressive Phenotypes. <i>Cancer Research</i> , 2019, 79, 1952-1966.	0.4	157
53	A Computational Study of Feedback Effects on Signal Dynamics in a Mitogen-Activated Protein Kinase (MAPK) Pathway Model. <i>Biotechnology Progress</i> , 2001, 17, 227-239.	1.3	154
54	Tumor invasion as dysregulated cell motility. <i>Seminars in Cancer Biology</i> , 2001, 11, 105-117.	4.3	153

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55	Integrated gut/liver microphysiological systems elucidates inflammatory inter-tissue crosstalk. <i>Biotechnology and Bioengineering</i> , 2017, 114, 2648-2659.	1.7	151
56	Rational cytokine design for increased lifetime and enhanced potency using pH-activated histidine switching. <i>Nature Biotechnology</i> , 2002, 20, 908-913.	9.4	150
57	Biophysical Integration of Effects of Epidermal Growth Factor and Fibronectin on Fibroblast Migration. <i>Biophysical Journal</i> , 1999, 76, 2814-2823.	0.2	146
58	Fuzzy Logic Analysis of Kinase Pathway Crosstalk in TNF/EGF/Insulin-Induced Signaling. <i>PLoS Computational Biology</i> , 2009, 5, e1000340.	1.5	145
59	Defining principles of combination drug mechanisms of action. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E170-9.	3.3	145
60	Reduced Proteolytic Shedding of Receptor Tyrosine Kinases Is a Post-Translational Mechanism of Kinase Inhibitor Resistance. <i>Cancer Discovery</i> , 2016, 6, 382-399.	7.7	139
61	Humoral signatures of protective and pathological SARS-CoV-2 infection in children. <i>Nature Medicine</i> , 2021, 27, 454-462.	15.2	137
62	Optimization of Cell Surface Binding Enhances Efficiency and Specificity of Molecular Conjugate Gene Delivery. <i>Journal of Biological Chemistry</i> , 1998, 273, 28004-28009.	1.6	135
63	Combination antibody treatment down-regulates epidermal growth factor receptor by inhibiting endosomal recycling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 13252-13257.	3.3	135
64	A Compendium of Signals and Responses Triggered by Prodeath and Prosurvival Cytokines. <i>Molecular and Cellular Proteomics</i> , 2005, 4, 1569-1590.	2.5	134
65	Comparing Signaling Networks between Normal and Transformed Hepatocytes Using Discrete Logical Models. <i>Cancer Research</i> , 2011, 71, 5400-5411.	0.4	132
66	Bioengineering Models of Cell Signaling. <i>Annual Review of Biomedical Engineering</i> , 2000, 2, 31-53.	5.7	131
67	Route of immunization defines multiple mechanisms of vaccine-mediated protection against SIV. <i>Nature Medicine</i> , 2018, 24, 1590-1598.	15.2	129
68	Epidermal Growth Factor Induces Fibroblast Contractility and Motility via a Protein Kinase C β -dependent Pathway. <i>Journal of Biological Chemistry</i> , 2004, 279, 14551-14560.	1.6	127
69	Synergistic drug-cytokine induction of hepatocellular death as an in vitro approach for the study of inflammation-associated idiosyncratic drug hepatotoxicity. <i>Toxicology and Applied Pharmacology</i> , 2009, 237, 317-330.	1.3	127
70	Tissue-Specific Oncogenic Activity of KRASA146T. <i>Cancer Discovery</i> , 2019, 9, 738-755.	7.7	127
71	Towards targeting of shared mechanisms of cancer metastasis and therapy resistance. <i>Nature Reviews Cancer</i> , 2022, 22, 157-173.	12.8	125
72	Molecular Network Analysis of Endometriosis Reveals a Role for c-Jun-Regulated Macrophage Activation. <i>Science Translational Medicine</i> , 2014, 6, 222ra16.	5.8	124

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73	Receptor-mediated targeting of gene delivery vectors: Insights from molecular mechanisms for improved vehicle design. <i>Biotechnology and Bioengineering</i> , 2000, 70, 593-605.	1.7	115
74	Measurement of bacterial random motility and chemotaxis coefficients: I. Stopped-flow diffusion chamber assay. <i>Biotechnology and Bioengineering</i> , 1991, 37, 647-660.	1.7	114
75	Quantitative Analysis of Synthetic Gene Delivery Vector Design Properties. <i>Molecular Therapy</i> , 2001, 4, 438-446.	3.7	114
76	Directional Persistence of EGF-Induced Cell Migration Is Associated with Stabilization of Lamellipodial Protrusions. <i>Biophysical Journal</i> , 2005, 88, 1479-1488.	0.2	114
77	Bayesian analysis of signaling networks governing embryonic stem cell fate decisions. <i>Bioinformatics</i> , 2005, 21, 741-753.	1.8	113
78	Training Signaling Pathway Maps to Biochemical Data with Constrained Fuzzy Logic: Quantitative Analysis of Liver Cell Responses to Inflammatory Stimuli. <i>PLoS Computational Biology</i> , 2011, 7, e1001099.	1.5	113
79	A biological approach to computational models of proteomic networks. <i>Current Opinion in Chemical Biology</i> , 2006, 10, 73-80.	2.8	111
80	Exploiting Temporal Collateral Sensitivity in Tumor Clonal Evolution. <i>Cell</i> , 2016, 165, 234-246.	13.5	111
81	Fab and Fc contribute to maximal protection against SARS-CoV-2 following NVX-CoV2373 subunit vaccine with Matrix-M vaccination. <i>Cell Reports Medicine</i> , 2021, 2, 100405.	3.3	110
82	Cue-Signal-Response Analysis of TNF-Induced Apoptosis by Partial Least Squares Regression of Dynamic Multivariate Data. <i>Journal of Computational Biology</i> , 2004, 11, 544-561.	0.8	106
83	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
84	Multivariate proteomic analysis of murine embryonic stem cell self-renewal versus differentiation signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 2900-2905.	3.3	103
85	Marrow-derived stem cell motility in 3D synthetic scaffold is governed by geometry along with adhesivity and stiffness. <i>Biotechnology and Bioengineering</i> , 2011, 108, 1181-1193.	1.7	101
86	Mapping functional humoral correlates of protection against malaria challenge following RTS,S/AS01 vaccination. <i>Science Translational Medicine</i> , 2020, 12, .	5.8	100
87	mRNA-1273 and BNT162b2 COVID-19 vaccines elicit antibodies with differences in Fc-mediated effector functions. <i>Science Translational Medicine</i> , 2022, 14, eabm2311.	5.8	100
88	A ligand-receptor signaling threshold model of stem cell differentiation control: a biologically conserved mechanism applicable to hematopoiesis. <i>Blood</i> , 2000, 96, 1215-1222.	0.6	99
89	Collecting and organizing systematic sets of protein data. <i>Nature Reviews Molecular Cell Biology</i> , 2006, 7, 803-812.	16.1	98
90	Engineering epidermal growth factor for enhanced mitogenic potency. <i>Nature Biotechnology</i> , 1996, 14, 1696-1699.	9.4	97

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91	Fatty Acid Metabolites Combine with Reduced \hat{I}^2 Oxidation to Activate Th17 Inflammation in Human Type 2 Diabetes. <i>Cell Metabolism</i> , 2019, 30, 447-461.e5.	7.2	97
92	Th17 cytokines differentiate obesity from obesity-associated type 2 diabetes and promote $\langle \text{sc} \rangle \text{TNF} \langle / \text{sc} \rangle$ production. <i>Obesity</i> , 2016, 24, 102-112.	1.5	96
93	DNA Repair Capacity in Multiple Pathways Predicts Chemoresistance in Glioblastoma Multiforme. <i>Cancer Research</i> , 2017, 77, 198-206.	0.4	96
94	Networks Inferred from Biochemical Data Reveal Profound Differences in Toll-like Receptor and Inflammatory Signaling between Normal and Transformed Hepatocytes. <i>Molecular and Cellular Proteomics</i> , 2010, 9, 1849-1865.	2.5	95
95	Intratumor heterogeneity alters most effective drugs in designed combinations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 10773-10778.	3.3	94
96	Molecular properties in cell adhesion: a physical and engineering perspective. <i>Trends in Biotechnology</i> , 2001, 19, 310-316.	4.9	92
97	Modeling HER2 Effects on Cell Behavior from Mass Spectrometry Phosphotyrosine Data. <i>PLoS Computational Biology</i> , 2007, 3, e4.	1.5	92
98	Addressing Genetic Tumor Heterogeneity through Computationally Predictive Combination Therapy. <i>Cancer Discovery</i> , 2014, 4, 166-174.	7.7	92
99	ROS and Oxidative Stress Are Elevated in Mitosis during Asynchronous Cell Cycle Progression and Are Exacerbated by Mitotic Arrest. <i>Cell Systems</i> , 2019, 8, 163-167.e2.	2.9	92
100	A mammalian functional-genetic approach to characterizing cancer therapeutics. <i>Nature Chemical Biology</i> , 2011, 7, 92-100.	3.9	90
101	2D protrusion but not motility predicts growth factor-induced cancer cell migration in 3D collagen. <i>Journal of Cell Biology</i> , 2012, 197, 721-729.	2.3	90
102	Microfluidic probe for single-cell analysis in adherent tissue culture. <i>Nature Communications</i> , 2014, 5, 3421.	5.8	90
103	Deoxycytidine Release from Pancreatic Stellate Cells Promotes Gemcitabine Resistance. <i>Cancer Research</i> , 2019, 79, 5723-5733.	0.4	90
104	A High-throughput Quantitative Multiplex Kinase Assay for Monitoring Information Flow in Signaling Networks. <i>Molecular and Cellular Proteomics</i> , 2003, 2, 463-473.	2.5	89
105	In Vivo Systems Analysis Identifies Spatial and Temporal Aspects of the Modulation of TNF-induced Apoptosis and Proliferation by MAPKs. <i>Science Signaling</i> , 2011, 4, ra16.	1.6	89
106	Mathematical model for the effects of epidermal growth factor receptor trafficking dynamics on fibroblast proliferation responses. <i>Biotechnology Progress</i> , 1992, 8, 132-143.	1.3	88
107	HIV-1 infection induces strong production of IP-10 through TLR7/9-dependent pathways. <i>Aids</i> , 2013, 27, 2505-2517.	1.0	88
108	Molecular Pathways: Receptor Ectodomain Shedding in Treatment, Resistance, and Monitoring of Cancer. <i>Clinical Cancer Research</i> , 2017, 23, 623-629.	3.2	87

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109	Macrophage-Secreted TNF α and TGF β 1 Influence Migration Speed and Persistence of Cancer Cells in 3D Tissue Culture via Independent Pathways. <i>Cancer Research</i> , 2017, 77, 279-290.	0.4	86
110	ADAM8 as a drug target in pancreatic cancer. <i>Nature Communications</i> , 2015, 6, 6175.	5.8	85
111	Mechanical properties of a self-assembling oligopeptide matrix. <i>Journal of Biomaterials Science, Polymer Edition</i> , 1998, 9, 297-312.	1.9	84
112	Maternal SARS-CoV-2 infection elicits sexually dimorphic placental immune responses. <i>Science Translational Medicine</i> , 2021, 13, eabi7428.	5.8	84
113	On-demand dissolution of modular, synthetic extracellular matrix reveals local epithelial-stromal communication networks. <i>Biomaterials</i> , 2017, 130, 90-103.	5.7	83
114	Measurement of bacterial random motility and chemotaxis coefficients: II. Application of single-cell-based mathematical model. <i>Biotechnology and Bioengineering</i> , 1991, 37, 661-672.	1.7	82
115	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
116	Discrete SARS-CoV-2 antibody titers track with functional humoral stability. <i>Nature Communications</i> , 2021, 12, 1018.	5.8	82
117	Shaping up for shipping out: PLC γ signaling of morphology changes in EGF-stimulated fibroblast migration. <i>Cytoskeleton</i> , 1999, 44, 227-233.	4.4	81
118	ADAM-10 and -17 regulate endometriotic cell migration via concerted ligand and receptor shedding feedback on kinase signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E2074-83.	3.3	80
119	Peritoneal fluid cytokines related to endometriosis in patients evaluated for infertility. <i>Fertility and Sterility</i> , 2017, 107, 1191-1199.e2.	0.5	80
120	COVID-19 mRNA vaccines drive differential antibody Fc-functional profiles in pregnant, lactating, and nonpregnant women. <i>Science Translational Medicine</i> , 2021, 13, eabi8631.	5.8	80
121	Antigen-specific antibody Fc glycosylation enhances humoral immunity via the recruitment of complement. <i>Science Immunology</i> , 2018, 3, .	5.6	78
122	Proteolytic Activity Matrix Analysis (PrAMA) for simultaneous determination of multiple protease activities. <i>Integrative Biology (United Kingdom)</i> , 2011, 3, 422-438.	0.6	77
123	SARS-CoV-2-specific ELISA development. <i>Journal of Immunological Methods</i> , 2020, 484-485, 112832.	0.6	77
124	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
125	Multiplexed Protease Activity Assay for Low-Volume Clinical Samples Using Droplet-Based Microfluidics and Its Application to Endometriosis. <i>Journal of the American Chemical Society</i> , 2013, 135, 1645-1648.	6.6	76
126	Calpain Proteases in Cell Adhesion and Motility. <i>International Review of Cytology</i> , 2005, 245, 1-16.	6.2	74

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127	Regulated ADAM17-dependent EGF family ligand release by substrate-selecting signaling pathways. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9776-9781.	3.3	74
128	Effects of systematic variation of amino acid sequence on the mechanical properties of a self-assembling, oligopeptide biomaterial. Journal of Biomaterials Science, Polymer Edition, 2002, 13, 225-236.	1.9	73
129	Human physiometric model integrating microphysiological systems of the gut, liver, and brain for studies of neurodegenerative diseases. Science Advances, 2021, 7, .	4.7	73
130	Deconstructing (and reconstructing) cell migration. , 1998, 43, 358-368.		71
131	Receptor-Driven ERK Pulses Reconfigure MAPK Signaling and Enable Persistence of Drug-Adapted BRAF-Mutant Melanoma Cells. Cell Systems, 2020, 11, 478-494.e9.	2.9	71
132	An inducible autocrine cascade regulates rat hepatocyte proliferation and apoptosis responses to tumor necrosis factor- α . Hepatology, 2008, 48, 276-288.	3.6	69
133	Hepatic Dysfunction Caused by Consumption of a High-Fat Diet. Cell Reports, 2017, 21, 3317-3328.	2.9	68
134	Measurement of individual cell migration parameters for human tissue cells. AIChE Journal, 1992, 38, 1092-1104.	1.8	67
135	Early cross-coronavirus reactive signatures of humoral immunity against COVID-19. Science Immunology, 2021, 6, eabj2901.	5.6	67
136	Sustained epidermal growth factor receptor levels and activation by tethered ligand binding enhances osteogenic differentiation of multipotent marrow stromal cells. Journal of Cellular Physiology, 2009, 221, 306-317.	2.0	64
137	Genital Systemic Chemokine Gradients and the Risk of HIV Acquisition in Women. Journal of Acquired Immune Deficiency Syndromes (1999), 2017, 74, 318-325.	0.9	64
138	Integrated mapping of pharmacokinetics and pharmacodynamics in a patient-derived xenograft model of glioblastoma. Nature Communications, 2018, 9, 4904.	5.8	62
139	Identification of neurotoxic cytokines by profiling Alzheimer's disease tissues and neuron culture viability screening. Scientific Reports, 2015, 5, 16622.	1.6	61
140	Multiplexed relative and absolute quantitative immunopeptidomics reveals MHC I repertoire alterations induced by CDK4/6 inhibition. Nature Communications, 2020, 11, 2760.	5.8	61
141	Translating preclinical models to humans. Science, 2020, 367, 742-743.	6.0	61
142	Advances in the quantification of mitochondrial function in primary human immune cells through extracellular flux analysis. PLoS ONE, 2017, 12, e0170975.	1.1	61
143	Signaling thresholds govern heterogeneity in IL-7 receptor-mediated responses of naive CD8 ⁺ T cells. Immunology and Cell Biology, 2011, 89, 581-594.	1.0	60
144	Initiation of Antiretroviral Therapy Before Pregnancy Reduces the Risk of Infection-related Hospitalization in Human Immunodeficiency Virus-exposed Uninfected Infants Born in a High-income Country. Clinical Infectious Diseases, 2019, 68, 1193-1203.	2.9	60

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145	Receptor-mediated effects on ligand availability influence relative mitogenic potencies of epidermal growth factor and transforming growth factor β . , 1996, 166, 512-522.		58
146	Analysis of chemotactic bacterial distributions in population migration assays using a mathematical model applicable to steep or shallow attractant gradients. Bulletin of Mathematical Biology, 1991, 53, 721-749.	0.9	57
147	Modeling of signal-response cascades using decision tree analysis. Bioinformatics, 2005, 21, 2027-2035.	1.8	57
148	Methylation of episomal plasmids as a barrier to transient gene expression via a synthetic delivery vector. New Biotechnology, 2001, 18, 185-192.	2.7	56
149	Mena binds β 5 integrin directly and modulates β 5 α 1 function. Journal of Cell Biology, 2012, 198, 657-676.	2.3	56
150	Integrated Assessment of Diclofenac Biotransformation, Pharmacokinetics, and Omics-Based Toxicity in a Three-Dimensional Human Liver-Immunocompetent Coculture System. Drug Metabolism and Disposition, 2017, 45, 855-866.	1.7	56
151	Profiling drugs for rheumatoid arthritis that inhibit synovial fibroblast activation. Nature Chemical Biology, 2017, 13, 38-45.	3.9	56
152	Analysis of intracellular receptor/ligand sorting in endosomes. Journal of Theoretical Biology, 1988, 132, 203-245.	0.8	55
153	Making connections count. Nature, 1996, 383, 390-391.	13.7	55
154	Quantitative Network Signal Combinations Downstream of TCR Activation Can Predict IL-2 Production Response. Journal of Immunology, 2007, 178, 4984-4992.	0.4	55
155	Cytokine-associated drug toxicity in human hepatocytes is associated with signaling network dysregulation. Molecular BioSystems, 2010, 6, 1195.	2.9	55
156	Receptor Tyrosine Kinases Fall into Distinct Classes Based on Their Inferred Signaling Networks. Science Signaling, 2013, 6, ra58.	1.6	55
157	Therapeutically reprogrammed nutrient signalling enhances nanoparticulate albumin bound drug uptake and efficacy in KRAS-mutant cancer. Nature Nanotechnology, 2021, 16, 830-839.	15.6	55
158	Quantitative relationships between single-cell and cell-population model parameters for chemosensory migration responses of alveolar macrophages to C5a. Cytoskeleton, 1990, 16, 279-293.	4.4	54
159	ADAM9 Inhibition Increases Membrane Activity of ADAM10 and Controls β -Secretase Processing of Amyloid Precursor Protein. Journal of Biological Chemistry, 2011, 286, 40443-40451.	1.6	54
160	Computational Model for Effects of Ligand/Receptor Binding Properties on Interleukin-2 Trafficking Dynamics and T Cell Proliferation Response. Biotechnology Progress, 2000, 16, 905-916.	1.3	53
161	Integrated mechanistic and data-driven modelling for multivariate analysis of signalling pathways. Journal of the Royal Society Interface, 2006, 3, 515-526.	1.5	53
162	Integrin-binding peptide in solution inhibits or enhances endothelial cell migration, predictably from cell adhesion. Annals of Biomedical Engineering, 1994, 22, 144-152.	1.3	52

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163	Kinetic Model for Integrin-mediated Adhesion Release During Cell Migration. <i>Annals of Biomedical Engineering</i> , 1999, 27, 219-235.	1.3	52
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