

# Douglas A Lauffenburger

## List of Publications by Citations

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323  
papers

26,813  
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82  
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156  
g-index

355  
ext. papers

31,412  
ext. citations

11.9  
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L-index

#	Paper	IF	Citations
323	Cell migration: a physically integrated molecular process. <i>Cell</i> , <b>1996</b> , 84, 359-69	56.2	3289
322	Integrin-ligand binding properties govern cell migration speed through cell-substratum adhesiveness. <i>Nature</i> , <b>1997</b> , 385, 537-40	50.4	1187
321	Causal protein-signaling networks derived from multiparameter single-cell data. <i>Science</i> , <b>2005</b> , 308, 523-9	33.3	1020
320	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> , <b>2006</b> , 103, 10889-94	11.5	913
319	Single-shot Ad26 vaccine protects against SARS-CoV-2 in rhesus macaques. <i>Nature</i> , <b>2020</b> , 586, 583-588	50.4	550
318	Correlates of protection against SARS-CoV-2 in rhesus macaques. <i>Nature</i> , <b>2021</b> , 590, 630-634	50.4	498
317	Physicochemical modelling of cell signalling pathways. <i>Nature Cell Biology</i> , <b>2006</b> , 8, 1195-203	23.4	471
316	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> , <b>2005</b> , 4, 1240-50	7.6	453
315	A systems model of signaling identifies a molecular basis set for cytokine-induced apoptosis. <i>Science</i> , <b>2005</b> , 310, 1646-53	33.3	443
314	Vector unpacking as a potential barrier for receptor-mediated polyplex gene delivery. <i>Biotechnology and Bioengineering</i> , <b>2000</b> , 67, 598-606	4.9	413
313	Cutting to the chase: calpain proteases in cell motility. <i>Trends in Cell Biology</i> , <b>2002</b> , 12, 46-54	18.3	322
312	A Functional Role for Antibodies in Tuberculosis. <i>Cell</i> , <b>2016</b> , 167, 433-443.e14	56.2	306
311	Regulation of cell migration by the calcium-dependent protease calpain. <i>Journal of Biological Chemistry</i> , <b>1997</b> , 272, 32719-22	5.4	303
310	Computational modeling of the EGF-receptor system: a paradigm for systems biology. <i>Trends in Cell Biology</i> , <b>2003</b> , 13, 43-50	18.3	276
309	Discrete logic modelling as a means to link protein signalling networks with functional analysis of mammalian signal transduction. <i>Molecular Systems Biology</i> , <b>2009</b> , 5, 331	12.2	252
308	Logic-based models for the analysis of cell signaling networks. <i>Biochemistry</i> , <b>2010</b> , 49, 3216-24	3.2	249
307	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> , <b>2012</b> , 109, 1607-12	11.5	243

306	Genital inflammation and the risk of HIV acquisition in women. <i>Clinical Infectious Diseases</i> , <b>2015</b> , 61, 260-266	21.6	239
305	Interconnected Microphysiological Systems for Quantitative Biology and Pharmacology Studies. <i>Scientific Reports</i> , <b>2018</b> , 8, 4530	4.9	238
304	Self-assembly of a beta-sheet protein governed by relief of electrostatic repulsion relative to van der Waals attraction. <i>Biomacromolecules</i> , <b>2000</b> , 1, 627-31	6.9	238
303	Dissecting Polyclonal Vaccine-Induced Humoral Immunity against HIV Using Systems Serology. <i>Cell</i> , <b>2015</b> , 163, 988-98	56.2	230
302	Control of self-assembling oligopeptide matrix formation through systematic variation of amino acid sequence. <i>Biomaterials</i> , <b>2002</b> , 23, 219-27	15.6	226
301	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> , <b>2000</b> , 275, 2390-8	5.4	221
300	Distinct Early Serological Signatures Track with SARS-CoV-2 Survival. <i>Immunity</i> , <b>2020</b> , 53, 524-532.e4	32.3	219
299	A Mena invasion isoform potentiates EGF-induced carcinoma cell invasion and metastasis. <i>Developmental Cell</i> , <b>2008</b> , 15, 813-28	10.2	216
298	The receptor AXL diversifies EGFR signaling and limits the response to EGFR-targeted inhibitors in triple-negative breast cancer cells. <i>Science Signaling</i> , <b>2013</b> , 6, ra66	8.8	196
297	Effects of HER2 overexpression on cell signaling networks governing proliferation and migration. <i>Molecular Systems Biology</i> , <b>2006</b> , 2, 54	12.2	188
296	A multiplexed homogeneous fluorescence-based assay for protein kinase activity in cell lysates. <i>Nature Methods</i> , <b>2005</b> , 2, 277-83	21.6	183
295	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> , <b>1995</b> , 270, 4334-40	5.4	178
294	Ad26 vaccine protects against SARS-CoV-2 severe clinical disease in hamsters. <i>Nature Medicine</i> , <b>2020</b> , 26, 1694-1700	50.5	176
293	Common effector processing mediates cell-specific responses to stimuli. <i>Nature</i> , <b>2007</b> , 448, 604-8	50.4	169
292	Membrane proximal ERK signaling is required for M-calpain activation downstream of epidermal growth factor receptor signaling. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 23341-8	5.4	169
291	Oncogenic KRAS Regulates Tumor Cell Signaling via Stromal Reciprocation. <i>Cell</i> , <b>2016</b> , 165, 910-20	56.2	169
290	The response of human epithelial cells to TNF involves an inducible autocrine cascade. <i>Cell</i> , <b>2006</b> , 124, 1225-39	56.2	165
289	Analysis of Single-Cell RNA-Seq Identifies Cell-Cell Communication Associated with Tumor Characteristics. <i>Cell Reports</i> , <b>2018</b> , 25, 1458-1468.e4	10.6	165

288	Transforming Boolean models to continuous models: methodology and application to T-cell receptor signaling. <i>BMC Systems Biology</i> , <b>2009</b> , 3, 98	3.5	158
287	Building with a scaffold: emerging strategies for high- to low-level cellular modeling. <i>Trends in Biotechnology</i> , <b>2003</b> , 21, 255-62	15.1	158
286	Immunogenicity of the Ad26.COVS Vaccine for COVID-19. <i>JAMA - Journal of the American Medical Association</i> , <b>2021</b> , 325, 1535-1544	27.4	139
285	Biophysical integration of effects of epidermal growth factor and fibronectin on fibroblast migration. <i>Biophysical Journal</i> , <b>1999</b> , 76, 2814-23	2.9	138
284	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> , <b>2016</b> , 9, 194-205	9.2	137
283	Targeting tumor cell motility as a strategy against invasion and metastasis. <i>Trends in Pharmacological Sciences</i> , <b>2013</b> , 34, 283-9	13.2	136
282	Mena invasive (MenaINV) promotes multicellular streaming motility and transendothelial migration in a mouse model of breast cancer. <i>Journal of Cell Science</i> , <b>2011</b> , 124, 2120-31	5.3	136
281	Quantitative analysis of HER2-mediated effects on HER2 and epidermal growth factor receptor endocytosis: distribution of homo- and heterodimers depends on relative HER2 levels. <i>Journal of Biological Chemistry</i> , <b>2003</b> , 278, 23343-51	5.4	136
280	Compromised Humoral Functional Evolution Tracks with SARS-CoV-2 Mortality. <i>Cell</i> , <b>2020</b> , 183, 1508-1519.e12	56.12	134
279	Tumor invasion as dysregulated cell motility. <i>Seminars in Cancer Biology</i> , <b>2001</b> , 11, 105-17	12.7	134
278	Rational cytokine design for increased lifetime and enhanced potency using pH-activated "histidine switching". <i>Nature Biotechnology</i> , <b>2002</b> , 20, 908-13	44.5	133
277	CellNOptR: a flexible toolkit to train protein signaling networks to data using multiple logic formalisms. <i>BMC Systems Biology</i> , <b>2012</b> , 6, 133	3.5	132
276	A computational study of feedback effects on signal dynamics in a mitogen-activated protein kinase (MAPK) pathway model. <i>Biotechnology Progress</i> , <b>2001</b> , 17, 227-39	2.8	130
275	Quick COVID-19 Healers Sustain Anti-SARS-CoV-2 Antibody Production. <i>Cell</i> , <b>2020</b> , 183, 1496-1507.e16	56.2	127
274	A Role for Fc Function in Therapeutic Monoclonal Antibody-Mediated Protection against Ebola Virus. <i>Cell Host and Microbe</i> , <b>2018</b> , 24, 221-233.e5	23.4	121
273	Defining principles of combination drug mechanisms of action. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, E170-9	11.5	121
272	Tumor Cell-Driven Extracellular Matrix Remodeling Drives Haptotaxis during Metastatic Progression. <i>Cancer Discovery</i> , <b>2016</b> , 6, 516-31	24.4	120
271	Fuzzy logic analysis of kinase pathway crosstalk in TNF/EGF/insulin-induced signaling. <i>PLoS Computational Biology</i> , <b>2009</b> , 5, e1000340	5	119

270	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> , <b>2010</b> , 107, 13252-7	11.5	118
269	Epidermal growth factor induces fibroblast contractility and motility via a protein kinase C delta-dependent pathway. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 14551-60	5.4	117
268	A compendium of signals and responses triggered by prodeath and prosurvival cytokines. <i>Molecular and Cellular Proteomics</i> , <b>2005</b> , 4, 1569-90	7.6	116
267	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> , <b>2009</b> , 237, 317-30	4.6	115
266	Reduced Proteolytic Shedding of Receptor Tyrosine Kinases Is a Post-Translational Mechanism of Kinase Inhibitor Resistance. <i>Cancer Discovery</i> , <b>2016</b> , 6, 382-99	24.4	113
265	Comparing signaling networks between normal and transformed hepatocytes using discrete logical models. <i>Cancer Research</i> , <b>2011</b> , 71, 5400-11	10.1	113
264	Integrated gut/liver microphysiological systems elucidates inflammatory inter-tissue crosstalk. <i>Biotechnology and Bioengineering</i> , <b>2017</b> , 114, 2648-2659	4.9	107
263	Optimization of cell surface binding enhances efficiency and specificity of molecular conjugate gene delivery. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 28004-9	5.4	107
262	Receptor-mediated targeting of gene delivery vectors: insights from molecular mechanisms for improved vehicle design. <i>Biotechnology and Bioengineering</i> , <b>2000</b> , 70, 593-605	4.9	105
261	IFN- $\gamma$ -Independent immune markers of Mycobacterium tuberculosis exposure. <i>Nature Medicine</i> , <b>2019</b> , 25, 977-987	50.5	104
260	Directional persistence of EGF-induced cell migration is associated with stabilization of lamellipodial protrusions. <i>Biophysical Journal</i> , <b>2005</b> , 88, 1479-88	2.9	104
259	Bioengineering models of cell signaling. <i>Annual Review of Biomedical Engineering</i> , <b>2000</b> , 2, 31-53	12	104
258	Quantitative analysis of synthetic gene delivery vector design properties. <i>Molecular Therapy</i> , <b>2001</b> , 4, 438-46	11.7	101
257	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> , <b>2011</b> , 7, e1001099	5	100
256	A biological approach to computational models of proteomic networks. <i>Current Opinion in Chemical Biology</i> , <b>2006</b> , 10, 73-80	9.7	100
255	Effect of epidermal growth factor receptor internalization on regulation of the phospholipase C-gamma1 signaling pathway. <i>Journal of Biological Chemistry</i> , <b>1999</b> , 274, 8958-65	5.4	100
254	Cue-signal-response analysis of TNF-induced apoptosis by partial least squares regression of dynamic multivariate data. <i>Journal of Computational Biology</i> , <b>2004</b> , 11, 544-61	1.7	99
253	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> , <b>2004</b> , 101, 2900-5	11.5	99

252	Bayesian analysis of signaling networks governing embryonic stem cell fate decisions. <i>Bioinformatics</i> , <b>2005</b> , 21, 741-53	7.2	98
251	Molecular network analysis of endometriosis reveals a role for c-Jun-regulated macrophage activation. <i>Science Translational Medicine</i> , <b>2014</b> , 6, 222ra16	17.5	96
250	Measurement of bacterial random motility and chemotaxis coefficients: I. Stopped-flow diffusion chamber assay. <i>Biotechnology and Bioengineering</i> , <b>1991</b> , 37, 647-60	4.9	96
249	A ligand-receptor signaling threshold model of stem cell differentiation control: a biologically conserved mechanism applicable to hematopoiesis. <i>Blood</i> , <b>2000</b> , 96, 1215-1222	2.2	94
248	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> , <b>2010</b> , 9, 1849-65	7.6	92
247	Engineering epidermal growth factor for enhanced mitogenic potency. <i>Nature Biotechnology</i> , <b>1996</b> , 14, 1696-9	44.5	92
246	Collecting and organizing systematic sets of protein data. <i>Nature Reviews Molecular Cell Biology</i> , <b>2006</b> , 7, 803-12	48.7	90
245	Marrow-derived stem cell motility in 3D synthetic scaffold is governed by geometry along with adhesivity and stiffness. <i>Biotechnology and Bioengineering</i> , <b>2011</b> , 108, 1181-93	4.9	89
244	Acidification of Tumor at Stromal Boundaries Drives Transcriptome Alterations Associated with Aggressive Phenotypes. <i>Cancer Research</i> , <b>2019</b> , 79, 1952-1966	10.1	86
243	Tissue-Specific Oncogenic Activity of KRAS. <i>Cancer Discovery</i> , <b>2019</b> , 9, 738-755	24.4	84
242	Modeling HER2 effects on cell behavior from mass spectrometry phosphotyrosine data. <i>PLoS Computational Biology</i> , <b>2007</b> , 3, e4	5	84
241	Molecular properties in cell adhesion: a physical and engineering perspective. <i>Trends in Biotechnology</i> , <b>2001</b> , 19, 310-6	15.1	82
240	Fc Glycan-Mediated Regulation of Placental Antibody Transfer. <i>Cell</i> , <b>2019</b> , 178, 202-215.e14	56.2	81
239	A high-throughput quantitative multiplex kinase assay for monitoring information flow in signaling networks: application to sepsis-apoptosis. <i>Molecular and Cellular Proteomics</i> , <b>2003</b> , 2, 463-73	7.6	81
238	Microfluidic probe for single-cell analysis in adherent tissue culture. <i>Nature Communications</i> , <b>2014</b> , 5, 3421	17.4	80
237	Mechanical properties of a self-assembling oligopeptide matrix. <i>Journal of Biomaterials Science, Polymer Edition</i> , <b>1998</b> , 9, 297-312	3.5	80
236	Mathematical model for the effects of epidermal growth factor receptor trafficking dynamics on fibroblast proliferation responses. <i>Biotechnology Progress</i> , <b>1992</b> , 8, 132-43	2.8	78
235	Exploiting Temporal Collateral Sensitivity in Tumor Clonal Evolution. <i>Cell</i> , <b>2016</b> , 165, 234-246	56.2	77

234	2D protrusion but not motility predicts growth factor-induced cancer cell migration in 3D collagen. <i>Journal of Cell Biology</i> , <b>2012</b> , 197, 721-9	7.3	77
233	EGF-receptor-mediated mammary epithelial cell migration is driven by sustained ERK signaling from autocrine stimulation. <i>Journal of Cell Science</i> , <b>2007</b> , 120, 3688-99	5.3	77
232	A mammalian functional-genetic approach to characterizing cancer therapeutics. <i>Nature Chemical Biology</i> , <b>2011</b> , 7, 92-100	11.7	74
231	Addressing genetic tumor heterogeneity through computationally predictive combination therapy. <i>Cancer Discovery</i> , <b>2014</b> , 4, 166-74	24.4	73
230	In vivo systems analysis identifies spatial and temporal aspects of the modulation of TNF- $\beta$ induced apoptosis and proliferation by MAPKs. <i>Science Signaling</i> , <b>2011</b> , 4, ra16	8.8	73
229	Route of immunization defines multiple mechanisms of vaccine-mediated protection against SIV. <i>Nature Medicine</i> , <b>2018</b> , 24, 1590-1598	50.5	73
228	Compromised SARS-CoV-2-specific placental antibody transfer. <i>Cell</i> , <b>2021</b> , 184, 628-642.e10	56.2	72
227	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> , <b>2013</b> , 110, E2074-83	11.5	71
226	Autocrine epidermal growth factor signaling stimulates directionally persistent mammary epithelial cell migration. <i>Journal of Cell Biology</i> , <b>2001</b> , 155, 1123-8	7.3	71
225	Th17 cytokines differentiate obesity from obesity-associated type 2 diabetes and promote TNF $\alpha$ production. <i>Obesity</i> , <b>2016</b> , 24, 102-12	8	70
224	Intratumor heterogeneity alters most effective drugs in designed combinations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 10773-8	11.5	70
223	Effects of systematic variation of amino acid sequence on the mechanical properties of a self-assembling, oligopeptide biomaterial. <i>Journal of Biomaterials Science, Polymer Edition</i> , <b>2002</b> , 13, 225-36	3.5	70
222	Calpain proteases in cell adhesion and motility. <i>International Review of Cytology</i> , <b>2005</b> , 245, 1-16		69
221	DNA Repair Capacity in Multiple Pathways Predicts Chemoresistance in Glioblastoma Multiforme. <i>Cancer Research</i> , <b>2017</b> , 77, 198-206	10.1	68
220	Measurement of bacterial random motility and chemotaxis coefficients: II. Application of single-cell-based mathematical model. <i>Biotechnology and Bioengineering</i> , <b>1991</b> , 37, 661-72	4.9	68
219	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> , <b>2013</b> , 135, 1645-8	16.4	67
218	ADAM8 as a drug target in pancreatic cancer. <i>Nature Communications</i> , <b>2015</b> , 6, 6175	17.4	67
217	Macrophage-Secreted TNF $\alpha$ and TGF $\beta$ Influence Migration Speed and Persistence of Cancer Cells in 3D Tissue Culture via Independent Pathways. <i>Cancer Research</i> , <b>2017</b> , 77, 279-290	10.1	66

216	HIV-1 infection induces strong production of IP-10 through TLR7/9-dependent pathways. <i>Aids</i> , <b>2013</b> , 27, 2505-17	3.5	66
215	Proteolytic Activity Matrix Analysis (PrAMA) for simultaneous determination of multiple protease activities. <i>Integrative Biology (United Kingdom)</i> , <b>2011</b> , 3, 422-38	3.7	66
214	Regulated ADAM17-dependent EGF family ligand release by substrate-selecting signaling pathways. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 9776-81	11.5	63
213	Deconstructing (and reconstructing) cell migration. <i>Microscopy Research and Technique</i> , <b>1998</b> , 43, 358-68	2.8	63
212	An inducible autocrine cascade regulates rat hepatocyte proliferation and apoptosis responses to tumor necrosis factor-alpha. <i>Hepatology</i> , <b>2008</b> , 48, 276-88	11.2	63
211	Shaping up for shipping out: PLCgamma signaling of morphology changes in EGF-stimulated fibroblast migration. <i>Cytoskeleton</i> , <b>1999</b> , 44, 227-33		63
210	Molecular Pathways: Receptor Ectodomain Shedding in Treatment, Resistance, and Monitoring of Cancer. <i>Clinical Cancer Research</i> , <b>2017</b> , 23, 623-629	12.9	61
209	ROS and Oxidative Stress Are Elevated in Mitosis during Asynchronous Cell Cycle Progression and Are Exacerbated by Mitotic Arrest. <i>Cell Systems</i> , <b>2019</b> , 8, 163-167.e2	10.6	60
208	Sustained epidermal growth factor receptor levels and activation by tethered ligand binding enhances osteogenic differentiation of multi-potent marrow stromal cells. <i>Journal of Cellular Physiology</i> , <b>2009</b> , 221, 306-17	7	60
207	On-demand dissolution of modular, synthetic extracellular matrix reveals local epithelial-stromal communication networks. <i>Biomaterials</i> , <b>2017</b> , 130, 90-103	15.6	58
206	Peritoneal fluid cytokines related to endometriosis in patients evaluated for infertility. <i>Fertility and Sterility</i> , <b>2017</b> , 107, 1191-1199.e2	4.8	57
205	Robustness and applicability of transcription factor and pathway analysis tools on single-cell RNA-seq data. <i>Genome Biology</i> , <b>2020</b> , 21, 36	18.3	57
204	Receptor-mediated effects on ligand availability influence relative mitogenic potencies of epidermal growth factor and transforming growth factor alpha. <i>Journal of Cellular Physiology</i> , <b>1996</b> , 166, 512-22	7	54
203	Analysis of chemotactic bacterial distributions in population migration assays using a mathematical model applicable to steep or shallow attractant gradients. <i>Bulletin of Mathematical Biology</i> , <b>1991</b> , 53, 721-49	2.1	54
202	Analysis of intracellular receptor/ligand sorting in endosomes. <i>Journal of Theoretical Biology</i> , <b>1988</b> , 132, 203-45	2.3	54
201	Measurement of individual cell migration parameters for human tissue cells. <i>AIChE Journal</i> , <b>1992</b> , 38, 1092-1104	3.6	53
200	Cytokine-associated drug toxicity in human hepatocytes is associated with signaling network dysregulation. <i>Molecular BioSystems</i> , <b>2010</b> , 6, 1195-206		52
199	Modeling of signal-response cascades using decision tree analysis. <i>Bioinformatics</i> , <b>2005</b> , 21, 2027-35	7.2	52



198	Receptor tyrosine kinases fall into distinct classes based on their inferred signaling networks. <i>Science Signaling</i> , <b>2013</b> , 6, ra58	8.8	51
197	Signaling thresholds govern heterogeneity in IL-7-receptor-mediated responses of naïve CD8(+) T cells. <i>Immunology and Cell Biology</i> , <b>2011</b> , 89, 581-94	5	51
196	Methylation of episomal plasmids as a barrier to transient gene expression via a synthetic delivery vector. <i>New Biotechnology</i> , <b>2001</b> , 18, 185-92		51
195	Fatty Acid Metabolites Combine with Reduced Oxidation to Activate Th17 Inflammation in Human Type 2 Diabetes. <i>Cell Metabolism</i> , <b>2019</b> , 30, 447-461.e5	24.6	50
194	Humoral signatures of protective and pathological SARS-CoV-2 infection in children. <i>Nature Medicine</i> , <b>2021</b> , 27, 454-462	50.5	50
193	Mena binds $\beta$ integrin directly and modulates $\beta$ function. <i>Journal of Cell Biology</i> , <b>2012</b> , 198, 657-76	7.3	49
192	Analysis of receptor internalization as a mechanism for modulating signal transduction. <i>Journal of Theoretical Biology</i> , <b>1998</b> , 195, 187-218	2.3	49
191	Quantitative network signal combinations downstream of TCR activation can predict IL-2 production response. <i>Journal of Immunology</i> , <b>2007</b> , 178, 4984-92	5.3	48
190	Multipathway model enables prediction of kinase inhibitor cross-talk effects on migration of Her2-overexpressing mammary epithelial cells. <i>Molecular Pharmacology</i> , <b>2008</b> , 73, 1668-78	4.3	47
189	Computational model for effects of ligand/receptor binding properties on interleukin-2 trafficking dynamics and T cell proliferation response. <i>Biotechnology Progress</i> , <b>2000</b> , 16, 905-16	2.8	46
188	Integrin-binding peptide in solution inhibits or enhances endothelial cell migration, predictably from cell adhesion. <i>Annals of Biomedical Engineering</i> , <b>1994</b> , 22, 144-52	4.7	46
187	Proliferative response of fibroblasts expressing internalization-deficient epidermal growth factor (EGF) receptors is altered via differential EGF depletion effect. <i>Biotechnology Progress</i> , <b>1994</b> , 10, 377-84	2.8	46
186	Mapping functional humoral correlates of protection against malaria challenge following RTS,S/AS01 vaccination. <i>Science Translational Medicine</i> , <b>2020</b> , 12,	17.5	46
185	Deoxycytidine Release from Pancreatic Stellate Cells Promotes Gemcitabine Resistance. <i>Cancer Research</i> , <b>2019</b> , 79, 5723-5733	10.1	46
184	Discrete SARS-CoV-2 antibody titers track with functional humoral stability. <i>Nature Communications</i> , <b>2021</b> , 12, 1018	17.4	46
183	A microphysiological system model of therapy for liver micrometastases. <i>Experimental Biology and Medicine</i> , <b>2014</b> , 239, 1170-9	3.7	45
182	Kinetic model for integrin-mediated adhesion release during cell migration. <i>Annals of Biomedical Engineering</i> , <b>1999</b> , 27, 219-35	4.7	45
181	SARS-CoV-2-specific ELISA development. <i>Journal of Immunological Methods</i> , <b>2020</b> , 484-485, 112832	2.5	45

180	Integrated mechanistic and data-driven modelling for multivariate analysis of signalling pathways. <i>Journal of the Royal Society Interface</i> , <b>2006</b> , 3, 515-26	4.1	44
179	Quantitative relationships between single-cell and cell-population model parameters for chemosensory migration responses of alveolar macrophages to C5a. <i>Cytoskeleton</i> , <b>1990</b> , 16, 279-93		44
178	Integrated Assessment of Diclofenac Biotransformation, Pharmacokinetics, and Omics-Based Toxicity in a Three-Dimensional Human Liver-Immunocompetent Coculture System. <i>Drug Metabolism and Disposition</i> , <b>2017</b> , 45, 855-866	4	43
177	Integrating cell-level kinetic modeling into the design of engineered protein therapeutics. <i>Nature Biotechnology</i> , <b>2005</b> , 23, 191-4	44.5	43
176	ADAM9 inhibition increases membrane activity of ADAM10 and controls $\beta$ -secretase processing of amyloid precursor protein. <i>Journal of Biological Chemistry</i> , <b>2011</b> , 286, 40443-51	5.4	42
175	Supplementation-dependent differences in the rates of embryonic stem cell self-renewal, differentiation, and apoptosis. <i>Biotechnology and Bioengineering</i> , <b>2003</b> , 84, 505-17	4.9	42
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