Peter S Kim

List of Publications by Year
in descending order

117	15,368	46984 47	22808 112
papers	citations	h-index	g-index

130	130	130	14592
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evolutionary velocity with protein language models predicts evolutionary dynamics of diverse proteins. Cell Systems, 2022, 13, 274-285.e6.	2.9	56
2	Mechanisms of innate and adaptive immunity to the Pfizer-BioNTech BNT162b2 vaccine. Nature Immunology, 2022, 23, 543-555.	7.0	185
3	Chemically Modified Bacterial Sacculi as a Vaccine Microparticle Scaffold. ACS Chemical Biology, 2022, 17, 1184-1196.	1.6	5
4	A Single Immunization with Spike-Functionalized Ferritin Vaccines Elicits Neutralizing Antibody Responses against SARS-CoV-2 in Mice. ACS Central Science, 2021, 7, 183-199.	5.3	134
5	The high-affinity immunoglobulin receptor FcÎ³RI potentiates HIV-1 neutralization via antibodies against the gp41 N-heptad repeat. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	16
6	Neutralizing antibodies targeting the SARSâ€CoVâ€2 receptor binding domain isolated from a naÃ¯ve human antibody library. Protein Science, 2021, 30, 716-727.	3.1	16
7	Control theory helps to resolve the measles paradox. Royal Society Open Science, 2021, 8, 201891.	1.1	0
8	A Derivative of the D5 Monoclonal Antibody That Targets the gp41 N-Heptad Repeat of HIV-1 with Broad Tier-2-Neutralizing Activity. Journal of Virology, 2021, 95, e0235020.	1.5	8
9	New-onset IgG autoantibodies in hospitalized patients with COVID-19. Nature Communications, 2021, 12, 5417.	5.8	286
10	Modeling human adaptive immune responses with tonsil organoids. Nature Medicine, 2021, 27, 125-135.	15.2	133
11	Accuracy of serological testing for SARSâ€CoVâ€2 antibodies: First results of a large mixedâ€method evaluation study. Allergy: European Journal of Allergy and Clinical Immunology, 2021, 76, 853-865.	2.7	34
12	Hydrogelâ€Based Slow Release of a Receptorâ€Binding Domain Subunit Vaccine Elicits Neutralizing Antibody Responses Against SARSâ€CoVâ€2. Advanced Materials, 2021, 33, e2104362.	11.1	48
13	Why Males Compete Rather Than Care, with an Application to Supplying Collective Goods. Bulletin of Mathematical Biology, 2020, 82, 125.	0.9	4
14	Human B Cell Clonal Expansion and Convergent Antibody Responses to SARS-CoV-2. Cell Host and Microbe, 2020, 28, 516-525.e5.	5.1	219
15	Defining the features and duration of antibody responses to SARS-CoV-2 infection associated with disease severity and outcome. Science Immunology, 2020, 5, .	5.6	404
16	Optimising Hydrogel Release Profiles for Viro-Immunotherapy Using Oncolytic Adenovirus Expressing IL-12 and GM-CSF with Immature Dendritic Cells. Applied Sciences (Switzerland), 2020, 10, 2872.	1.3	20
17	Protect, modify, deprotect (PMD): A strategy for creating vaccines to elicit antibodies targeting a specific epitope. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9947-9952.	3.3	38
18	Identification of HIV gp41-specific antibodies that mediate killing of infected cells. PLoS Pathogens, 2019, 15, e1007572.	2.1	35

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19	Adult sex ratioÂas an index for male strategy in primates. Theoretical Population Biology, 2019, 126, 40-50.	0.5	7
20	A high-affinity human PD-1/PD-L2 complex informs avenues for small-molecule immune checkpoint drug discovery. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24500-24506.	3.3	43
21	Why does women's fertility end in mid-life? Grandmothering and age at last birth. Journal of Theoretical Biology, 2019, 461, 84-91.	0.8	19
22	Mathematical Modelling of the Interaction Between Cancer Cells and an Oncolytic Virus: Insights into the Effects of Treatment Protocols. Bulletin of Mathematical Biology, 2018, 80, 1615-1629.	0.9	49
23	Influence of a mortality trade-off on the spreading rate of cane toads fronts. Communications in Partial Differential Equations, 2018, 43, 1627-1671.	1.0	7
24	Modelling tumourâ€“immune dynamics, disease progression and treatment. Letters in Biomathematics, 2018, 5, S1-S5.	0.3	4
25	Modelling heterogeneity in viral-tumour dynamics: The effects of gene-attenuation on viral characteristics. Journal of Theoretical Biology, 2018, 454, 41-52.	0.8	8
26	Modelling combined virotherapy and immunotherapy: strengthening the antitumour immune response mediated by IL-12 and GM-CSF expression. Letters in Biomathematics, 2018, 5, S99-S116.	0.3	7
27	Treating cancerous cells with viruses: insights from a minimal model for oncolytic virotherapy. Letters in Biomathematics, 2018, 5, S117-S136.	0.3	9
28	Stability of travelling waves in a <i>Wolbachia</i> invasion. Discrete and Continuous Dynamical Systems - Series B, 2018, 23, 609-628.	0.5	0
29	A model of the effects of cancer cell motility and cellular adhesion properties on tumour-immune dynamics. Mathematical Medicine and Biology, 2017, 34, dqw004.	0.8	6
30	Fibroblast-Specific Genetic Manipulation of p38 Mitogen-Activated Protein Kinase In Vivo Reveals Its Central Regulatory Role in Fibrosis. Circulation, 2017, 136, 549-561.	1.6	225
31	Modelling the Evolution of Traits in a Two-Sex Population, with an Application to Grandmothering. Bulletin of Mathematical Biology, 2017, 79, 2132-2148.	0.9	8
32	A Mathematical Model for the Macrophage Response to Respiratory Viral Infection in Normal and Asthmatic Conditions. Bulletin of Mathematical Biology, 2017, 79, 1979-1998.	0.9	5
33	Evolution of male strategies with sex-ratioâ€“dependent pay-offs: connecting pair bonds with grandmothering. Philosophical Transactions of the Royal Society B: Biological Sciences, 2017, 372, 20170041.	1.8	18
34	Further Mathematical Modelling of Mating Sex Ratios & Male Strategies with Special Relevance to Human Life History. Bulletin of Mathematical Biology, 2017, 79, 1907-1922.	0.9	11
35	Mentoring Undergraduate Interdisciplinary Mathematics Research Students: Junior Faculty Experiences. Primus, 2017, 27, 352-369.	0.3	1
36	An introduced parasitic fly may lead to local extinction of Darwin's finch populations. Journal of Applied Ecology, 2016, 53, 511-518.	1.9	49

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37	Evolution of longevity, age at last birth and sexual conflict with grandmothering. Journal of Theoretical Biology, 2016, 393, 145-157.	0.8	18
38	Mathematical modelling of spatial sorting and evolution in a hostâ€“parasite system. Journal of Theoretical Biology, 2015, 380, 530-541.	0.8	8
39	Grandmothering life histories and human pair bonding. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11806-11811.	3.3	42
40	Treatment strategies for combining immunostimulatory oncolytic virus therapeutics with dendritic cell injections. Mathematical Biosciences and Engineering, 2015, 12, 1237-1256.	1.0	28
41	Quantitative impact of immunomodulation versus oncolysis with cytokine-expressing virus therapeutics. Mathematical Biosciences and Engineering, 2015, 12, 841-858.	1.0	39
42	Pan-Bcl-2 Inhibitor, GX15-070 (Obatoclax), Decreases Human T Regulatory Lymphocytes while Preserving Effector T Lymphocytes: A Rationale for Its Use in Combination Immunotherapy. Journal of Immunology, 2014, 192, 2622-2633.	0.4	25
43	Potential utility of the pan-Bcl-2 inhibitor GX15â€“070 (obatoclax) in cancer immunotherapy. OncoImmunology, 2014, 3, e29351.	2.1	5
44	Effect of Mature Blood-Stage Plasmodium Parasite Sequestration on Pathogen Biomass in Mathematical and In Vivo Models of Malaria. Infection and Immunity, 2014, 82, 212-220.	1.0	26
45	Modelling the Impact of Marine Reserves on a Population with Depensatory Dynamics. Bulletin of Mathematical Biology, 2014, 76, 2122-2143.	0.9	5
46	Grandmothering drives the evolution of longevity in a probabilistic model. Journal of Theoretical Biology, 2014, 353, 84-94.	0.8	50
47	A dynamical model of tumour immunotherapy. Mathematical Biosciences, 2014, 253, 50-62.	0.9	40
48	Differential Equation Techniques for Modeling a Cycle-Specific Oncolytic Virotherapeutic. Springer Proceedings in Mathematics and Statistics, 2014, , 253-275.	0.1	1
49	An Age-Structured Approach to Modelling Behavioural Variation Maintained by Life-History Trade-Offs. PLoS ONE, 2014, 9, e84774.	1.1	2
50	A Cellular Automata and a Partial Differential Equation Model of Tumorâ€“Immune Dynamics and Chemotaxis. Springer Proceedings in Mathematics and Statistics, 2014, , 21-46.	0.1	3
51	Modelling a Wolbachia Invasion Using a Slowâ€“Fast Dispersal Reactionâ€“Diffusion Approach. Bulletin of Mathematical Biology, 2013, 75, 1501-1523.	0.9	25
52	Models of contrasting strategies of rhinovirus immune manipulation. Journal of Theoretical Biology, 2013, 327, 1-10.	0.8	3
53	Basic Principles in Modeling Adaptive Regulation and Immunodominance. Lecture Notes on Mathematical Modelling in the Life Sciences, 2013, , 33-57.	0.1	5
54	Modeling Protective Anti-Tumor Immunity via Preventative Cancer Vaccines Using a Hybrid Agent-based and Delay Differential Equation Approach. PLoS Computational Biology, 2012, 8, e1002742.	1.5	45

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55	A mathematical model for cell cycle-specific cancer virotherapy. Journal of Biological Dynamics, 2012, 6, 104-120.	0.8	49
56	Increased longevity evolves from grandmothering. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 4880-4884.	1.2	107
57	Biological circuit models of immune regulatory response: A decentralized control system. , 2011, , .		0
58	Strategic Treatment Interruptions During Imatinib Treatment of Chronic Myelogenous Leukemia. Bulletin of Mathematical Biology, 2011, 73, 1082-1100.	0.9	15
59	A Theory of Immunodominance and Adaptive Regulation. Bulletin of Mathematical Biology, 2011, 73, 1645-1665.	0.9	20
60	T cell state transition produces an emergent change detector. Journal of Theoretical Biology, 2011, 275, 59-69.	0.8	6
61	A reappraisal of grandmothering and natural selection. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 1936-1938.	1.2	16
62	Emergent Group Dynamics Governed by Regulatory Cells Produce a Robust Primary T Cell Response. Bulletin of Mathematical Biology, 2010, 72, 611-644.	0.9	23
63	Stability Analysis of a Simplified Yet Complete Model forÂChronic Myelogenous Leukemia. Bulletin of Mathematical Biology, 2010, 72, 1732-1759.	0.9	17
64	Features of responding T cells in cancer and chronic infection. Current Opinion in Immunology, 2010, 22, 223-230.	2.4	263
65	Vaccination with peptide mimetics of the gp41 prehairpin fusion intermediate yields neutralizing antisera against HIV-1 isolates. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10655-10660.	3.3	65
66	Stability crossing boundaries of delay systems modeling immune dynamics in leukemia. Discrete and Continuous Dynamical Systems - Series B, 2010, 13, 129-156.	0.5	23
67	Modeling and Simulation of the Immune System as a Self-Regulating Network. Methods in Enzymology, 2009, 467, 79-109.	0.4	39
68	Modeling Imatinib-Treated Chronic Myelogenous Leukemia: Reducing the Complexity of Agent-Based Models. Bulletin of Mathematical Biology, 2008, 70, 728-744.	0.9	27
69	A PDE Model for Imatinib-Treated Chronic Myelogenous Leukemia. Bulletin of Mathematical Biology, 2008, 70, 1994-2016.	0.9	32
70	Stability of a Gleevec and immune model with delays. , 2008, , .		3
71	Dynamics and Potential Impact of the Immune Response to Chronic Myelogenous Leukemia. PLoS Computational Biology, 2008, 4, e1000095.	1.5	81
72	Antibody association with HER-2/neuâ€“targeted vaccine enhances CD8+ T cell responses in mice through Fc-mediated activation of DCs. Journal of Clinical Investigation, 2008, 118, 1700-1711.	3.9	74

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73	Modeling regulation mechanisms in the immune system. Journal of Theoretical Biology, 2007, 246, 33-69.	0.8	68
74	Mini-Transplants for Chronic Myelogenous Leukemia: A Modeling Perspective. , 2007, , 3-20.		4
75	Post-transplantation dynamics of the immune response to chronic myelogenous leukemia. Journal of Theoretical Biology, 2005, 236, 39-59.	0.8	33
76	Serine racemase: Activation by glutamate neurotransmission via glutamate receptor interacting protein and mediation of neuronal migration. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 2105-2110.	3.3	200
77	A human monoclonal antibody neutralizes diverse HIV-1 isolates by binding a critical gp41 epitope. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14759-14764.	3.3	136
78	Hemolysis with rapid transfusion systems in the trauma setting. Canadian Journal of Surgery, 2004, 47, 295-7.	0.5	17
79	Altered Patterns of Cellular Gene Expression in Dermal Microvascular Endothelial Cells Infected with Kaposi's Sarcoma-Associated Herpesvirus. Journal of Virology, 2002, 76, 3395-3420.	1.5	106
80	Patterns of Gene Expression and a Transactivation Function Exhibited by the vGCR (ORF74) Chemokine Receptor Protein of Kaposi's Sarcoma-Associated Herpesvirus. Journal of Virology, 2002, 76, 3421-3439.	1.5	135
81	Mechanisms of Viral Membrane Fusion and Its Inhibition. Annual Review of Biochemistry, 2001, 70, 777-810.	5.0	1,209
82	Protein Design of an HIV-1 Entry Inhibitor. Science, 2001, 291, 884-888.	6.0	396
83	A Designed Protein with Packing between Left-Handed and Right-Handed Helices. Biochemistry, 2001, 40, 8981-8989.	1.2	40
84	Buried Polar Residues in Coiled-Coil Interfacesâ€‚â€¡. Biochemistry, 2001, 40, 6352-6360.	1.2	122
85	Alpha-lactalbumin forms a compact molten globule in the absence of disulfide bonds. Nature Structural Biology, 1999, 6, 948-952.	9.7	121
86	Inhibiting HIV-1 Entry. Cell, 1999, 99, 103-115.	13.5	459
87	Combinatorial codons: A computer program to approximate amino acid probabilities with biased nucleotide usage. Protein Science, 1999, 8, 680-688.	3.1	21
88	Forcing matchings on square grids. Discrete Mathematics, 1998, 190, 287-294.	0.4	48
89	HIV Entry and Its Inhibition. Cell, 1998, 93, 681-684.	13.5	1,203
90	Crystal structure of GCN4-pIQI, a trimeric coiled coil with buried polar residues. Journal of Molecular Biology, 1998, 284, 859-865.	2.0	95

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91	A Trimeric Structural Subdomain of the HIV-1 Transmembrane Glycoprotein. Journal of Biomolecular Structure and Dynamics, 1997, 15, 465-471.	2.0	154
92	Protein Dissection of the Antiparallel Coiled Coil fromEscherichia coliSeryl tRNA Synthetaseâ€. Biochemistry, 1997, 36, 2544-2549.	1.2	34
93	Structure of a Murine Leukemia Virus Receptor-Binding Glycoprotein at 2.0 Angstrom Resolution. Science, 1997, 277, 1662-1666.	6.0	213
94	NMR structure of the 35-residue villin headpiece subdomain. Nature Structural Biology, 1997, 4, 180-184.	9.7	294
95	A residue-specific NMR view of the non-cooperative unfolding of a molten globule. Nature Structural Biology, 1997, 4, 630-634.	9.7	236
96	Molecular basis of familial hypercholesterolaemia from structure of LDL receptor module. Nature, 1997, 388, 691-693.	13.7	340
97	MultiCoil: A program for predicting twoâ€and threeâ€stranded coiled coils. Protein Science, 1997, 6, 1179-1189.	3.1	667
98	Disulfide Determinants of Calcium-Induced Packing in Î±-Lactalbuminâ€. Biochemistry, 1996, 35, 859-863.	1.2	63
99	Rapid Formation of the Native 14-38 Disulfide Bond in the Early Stages of BPTI Foldingâ€. Biochemistry, 1996, 35, 16153-16164.	1.2	47
100	Retrovirus envelope domain at 1.7 Ã... resolution. Nature Structural Biology, 1996, 3, 465-469.	9.7	328
101	Proline scanning mutagenesis of a molten globule reveals non-cooperative formation of a protein's overall topology. Nature Structural and Molecular Biology, 1996, 3, 682-687.	3.6	96
102	Protein folding and calcium binding defects arising from familial hypercholesterolemia mutations of the LDL receptor. Nature Structural and Molecular Biology, 1996, 3, 758-762.	3.6	114
103	Context-dependent secondary structure formation of a designed protein sequence. Nature, 1996, 380, 730-734.	13.7	403
104	Intermediates in the folding of the membrane protein bacteriorhodopsin. Nature Structural and Molecular Biology, 1995, 2, 139-143.	3.6	108
105	Bipartite structure of the Î±-lactalbumin molten globule. Nature Structural and Molecular Biology, 1995, 2, 281-286.	3.6	157
106	A third native one-disulphide intermediate in the folding of bovine pancreatic trypsin inhibitor. Nature Structural Biology, 1995, 2, 674-679.	9.7	31
107	A trimeric structural domain of the HIV-1 transmembrane glycoprotein. Nature Structural and Molecular Biology, 1995, 2, 1075-1082.	3.6	694
108	A kinetic explanation for the rearrangement pathway of BPTI folding. Nature Structural and Molecular Biology, 1995, 2, 1123-1130.	3.6	84

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109	Formation of a nativeâ€like subdomain in a partially folded intermediate of bovine pancreatic trypsin inhibitor. Protein Science, 1994, 3, 1822-1832.	3.1	126
110	Hydrogen exchange in BPTI variants that do not share a common disulfide bond. Protein Science, 1994, 3, 2226-2232.	3.1	19
111	Measurement of the Î²-sheet-forming propensities of amino acids. Nature, 1994, 367, 660-663.	13.7	603
112	Crystal structure of an isoleucine-zipper trimer. Nature, 1994, 371, 80-83.	13.7	473
113	Context is a major determinant of Î²-sheet propensity. Nature, 1994, 371, 264-267.	13.7	345
114	The stabilizing effects of hydrophobic cores on peptide folding of bovine-pancreatic-trypsin-inhibitor folding-intermediate model. FEBS Journal, 1994, 223, 631-636.	0.2	9
115	A spring-loaded mechanism for the conformational change of influenza hemagglutinin. Cell, 1993, 73, 823-832.	13.5	918
116	A peptide model of a protein folding intermediate. Nature, 1988, 336, 42-48.	13.7	289
117	Tests of the helix dipole model for stabilization of Î±-helices. Nature, 1987, 326, 563-567.	13.7	649