

K Christopher Garcia

List of Publications by Year in descending order

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Version: 2024-02-01

133
papers

22,149
citations

12322

69
h-index

13365

130
g-index

153
all docs

153
docs citations

153
times ranked

27515
citing authors

#	ARTICLE	IF	CITATIONS
1	Accurate prediction of protein structures and interactions using a three-track neural network. <i>Science</i> , 2021, 373, 871-876.	6.0	2,843
2	Activation and allosteric modulation of a muscarinic acetylcholine receptor. <i>Nature</i> , 2013, 504, 101-106.	13.7	779
3	Structural Basis of Wnt Recognition by Frizzled. <i>Science</i> , 2012, 337, 59-64.	6.0	711
4	Mutational signature in colorectal cancer caused by genotoxic pks+ <i>E. coli</i> . <i>Nature</i> , 2020, 580, 269-273.	13.7	587
5	Disruption of TET2 promotes the therapeutic efficacy of CD19-targeted T cells. <i>Nature</i> , 2018, 558, 307-312.	13.7	574
6	Hexameric Structure and Assembly of the Interleukin-6/IL-6 Receptor/gp130 Complex. <i>Science</i> , 2003, 300, 2101-2104.	6.0	554
7	Screening and large-scale expression of membrane proteins in mammalian cells for structural studies. <i>Nature Protocols</i> , 2014, 9, 2574-2585.	5.5	532
8	Deconstructing the Peptide-MHC Specificity of T Cell Recognition. <i>Cell</i> , 2014, 157, 1073-1087.	13.5	483
9	Molecular and Structural Basis of Cytokine Receptor Pleiotropy in the Interleukin-4/13 System. <i>Cell</i> , 2008, 132, 259-272.	13.5	462
10	Exploiting a natural conformational switch to engineer an interleukin-2 "superkine"™. <i>Nature</i> , 2012, 484, 529-533.	13.7	438
11	Adrenaline-activated structure of β_2 -adrenoceptor stabilized by an engineered nanobody. <i>Nature</i> , 2013, 502, 575-579.	13.7	436
12	Structure of the Quaternary Complex of Interleukin-2 with Its α , β , and γ Receptors. <i>Science</i> , 2005, 310, 1159-1163.	6.0	421
13	Engineered SIRP± Variants as Immunotherapeutic Adjuvants to Anticancer Antibodies. <i>Science</i> , 2013, 341, 88-91.	6.0	401
14	In vivo molecular imaging for immunotherapy using ultra-bright near-infrared-IIb rare-earth nanoparticles. <i>Nature Biotechnology</i> , 2019, 37, 1322-1331.	9.4	398
15	De novo design of potent and selective mimics of IL-2 and IL-15. <i>Nature</i> , 2019, 565, 186-191.	13.7	362
16	Structural Biology of Shared Cytokine Receptors. <i>Annual Review of Immunology</i> , 2009, 27, 29-60.	9.5	348
17	Clonally expanded B cells in multiple sclerosis bind EBV EBNA1 and GialCAM. <i>Nature</i> , 2022, 603, 321-327.	13.7	343
18	Intratumoural heterogeneity generated by Notch signalling promotes small-cell lung cancer. <i>Nature</i> , 2017, 545, 360-364.	13.7	336

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19	Non-equivalence of Wnt and R-spondin ligands during Lgr5+ intestinal stem-cell self-renewal. <i>Nature</i> , 2017, 545, 238-242.	13.7	327
20	Structural Linkage between Ligand Discrimination and Receptor Activation by Type I Interferons. <i>Cell</i> , 2011, 146, 621-632.	13.5	310
21	Progenitor identification and SARS-CoV-2 infection in human distal lung organoids. <i>Nature</i> , 2020, 588, 670-675.	13.7	273
22	Durable antitumor responses to CD47 blockade require adaptive immune stimulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E2646-54.	3.3	272
23	Structural and Mechanistic Insights into Nerve Growth Factor Interactions with the TrkA and p75 Receptors. <i>Neuron</i> , 2007, 53, 25-38.	3.8	270
24	Surrogate Wnt agonists that phenocopy canonical Wnt and β -catenin signalling. <i>Nature</i> , 2017, 545, 234-237.	13.7	264
25	Structural basis for chemokine recognition and activation of a viral G protein-coupled receptor. <i>Science</i> , 2015, 347, 1113-1117.	6.0	261
26	Selective targeting of engineered T cells using orthogonal IL-2 cytokine-receptor complexes. <i>Science</i> , 2018, 359, 1037-1042.	6.0	254
27	Structure of an Extracellular gp130 Cytokine Receptor Signaling Complex. <i>Science</i> , 2001, 291, 2150-2155.	6.0	248
28	Notch-Jagged complex structure implicates a catch bond in tuning ligand sensitivity. <i>Science</i> , 2017, 355, 1320-1324.	6.0	232
29	T Cell Receptor Signaling Is Limited by Docking Geometry to Peptide-Major Histocompatibility Complex. <i>Immunity</i> , 2011, 35, 681-693.	6.6	229
30	Isolation of a Structural Mechanism for Uncoupling T Cell Receptor Signaling from Peptide-MHC Binding. <i>Cell</i> , 2018, 174, 672-687.e27.	13.5	229
31	Antigen Identification for Orphan T Cell Receptors Expressed on Tumor-Infiltrating Lymphocytes. <i>Cell</i> , 2018, 172, 549-563.e16.	13.5	226
32	Structural basis for Notch1 engagement of Delta-like 4. <i>Science</i> , 2015, 347, 847-853.	6.0	222
33	The molecular basis of TCR germline bias for MHC is surprisingly simple. <i>Nature Immunology</i> , 2009, 10, 143-147.	7.0	219
34	An Extracellular Interactome of Immunoglobulin and LRR Proteins Reveals Receptor-Ligand Networks. <i>Cell</i> , 2013, 154, 228-239.	13.5	207
35	Mechanistic and structural insight into the functional dichotomy between IL-2 and IL-15. <i>Nature Immunology</i> , 2012, 13, 1187-1195.	7.0	206
36	Insights into Cytokine-Receptor Interactions from Cytokine Engineering. <i>Annual Review of Immunology</i> , 2015, 33, 139-167.	9.5	204

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37	Structural and dynamic determinants of type I interferon receptor assembly and their functional interpretation. <i>Immunological Reviews</i> , 2012, 250, 317-334.	2.8	201
38	Non-invasive intravital imaging of cellular differentiation with a bright red-excitable fluorescent protein. <i>Nature Methods</i> , 2014, 11, 572-578.	9.0	196
39	Polyspecificity of T cell and B cell receptor recognition. <i>Seminars in Immunology</i> , 2007, 19, 216-224.	2.7	194
40	Antibodies to Interleukin-2 Elicit Selective T Cell Subset Potentiation through Distinct Conformational Mechanisms. <i>Immunity</i> , 2015, 42, 815-825.	6.6	191
41	Novel and shared neoantigen derived from histone 3 variant H3.3K27M mutation for glioma T cell therapy. <i>Journal of Experimental Medicine</i> , 2018, 215, 141-157.	4.2	186
42	A human anti-IL-2 antibody that potentiates regulatory T cells by a structure-based mechanism. <i>Nature Medicine</i> , 2018, 24, 1005-1014.	15.2	165
43	Design of protein-binding proteins from the target structure alone. <i>Nature</i> , 2022, 605, 551-560.	13.7	164
44	Allosteric Activation of a Spring-Loaded Natriuretic Peptide Receptor Dimer by Hormone. <i>Science</i> , 2001, 293, 1657-1662.	6.0	159
45	How the T Cell Receptor Sees Antigen? A Structural View. <i>Cell</i> , 2005, 122, 333-336.	13.5	159
46	Control of Synaptic Connectivity by a Network of Drosophila IgSF Cell Surface Proteins. <i>Cell</i> , 2015, 163, 1770-1782.	13.5	155
47	Genetic variation in MHC proteins is associated with T cell receptor expression biases. <i>Nature Genetics</i> , 2016, 48, 995-1002.	9.4	151
48	Interleukin-2 Activity Can Be Fine Tuned with Engineered Receptor Signaling Clamps. <i>Immunity</i> , 2015, 42, 826-838.	6.6	147
49	Opposing T cell responses in experimental autoimmune encephalomyelitis. <i>Nature</i> , 2019, 572, 481-487.	13.7	141
50	Tuning Cytokine Receptor Signaling by Re-orienting Dimer Geometry with Surrogate Ligands. <i>Cell</i> , 2015, 160, 1196-1208.	13.5	138
51	Mechanism of homodimeric cytokine receptor activation and dysregulation by oncogenic mutations. <i>Science</i> , 2020, 367, 643-652.	6.0	123
52	Structural interplay between germline interactions and adaptive recognition determines the bandwidth of TCR-peptide-MHC cross-reactivity. <i>Nature Immunology</i> , 2016, 17, 87-94.	7.0	122
53	BacMam system for high-level expression of recombinant soluble and membrane glycoproteins for structural studies. <i>Protein Expression and Purification</i> , 2008, 62, 160-170.	0.6	120
54	Alpha and Beta Type 1 Interferon Signaling: Passage for Diverse Biologic Outcomes. <i>Cell</i> , 2016, 164, 349-352.	13.5	120

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55	Data publication with the structural biology data grid supports live analysis. <i>Nature Communications</i> , 2016, 7, 10882.	5.8	113
56	Wnt Activation and Reduced Cell-Cell Contact Synergistically Induce Massive Expansion of Functional Human iPSC-Derived Cardiomyocytes. <i>Cell Stem Cell</i> , 2020, 27, 50-63.e5.	5.2	112
57	Molecular architecture of the $\hat{I}\hat{\pm}\hat{I}^2$ T cell receptor $\hat{\epsilon}$ CD3 complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 17576-17581.	3.3	107
58	Localized CD47 blockade enhances immunotherapy for murine melanoma. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 10184-10189.	3.3	103
59	Structural Insight into Pre-B Cell Receptor Function. <i>Science</i> , 2007, 316, 291-294.	6.0	101
60	Differential induction of interferon stimulated genes between type I and type III interferons is independent of interferon receptor abundance. <i>PLoS Pathogens</i> , 2018, 14, e1007420.	2.1	100
61	Functional Selectivity in Cytokine Signaling Revealed Through a Pathogenic EPO Mutation. <i>Cell</i> , 2017, 168, 1053-1064.e15.	13.5	98
62	Structural Organization of a Full-Length gp130/LIF-R Cytokine Receptor Transmembrane Complex. <i>Molecular Cell</i> , 2008, 31, 737-748.	4.5	94
63	An engineered IL-2 partial agonist promotes CD8+ T cell stemness. <i>Nature</i> , 2021, 597, 544-548.	13.7	94
64	The IFN- \hat{I} -IFN- \hat{I} R1-IL-10R \hat{I}^2 Complex Reveals Structural Features Underlying Type III IFN Functional Plasticity. <i>Immunity</i> , 2017, 46, 379-392.	6.6	89
65	Topological control of cytokine receptor signaling induces differential effects in hematopoiesis. <i>Science</i> , 2019, 364, .	6.0	89
66	Structure of the IFN \hat{I}^3 receptor complex guides design of biased agonists. <i>Nature</i> , 2019, 567, 56-60.	13.7	85
67	Next-Generation Surrogate Wnts Support Organoid Growth and Deconvolute Frizzled Pleiotropy In Vivo. <i>Cell Stem Cell</i> , 2020, 27, 840-851.e6.	5.2	84
68	In vitro reconstitution of T cell receptor-mediated segregation of the CD45 phosphatase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E9338-E9345.	3.3	83
69	Global analysis of shared T cell specificities in human non-small cell lung cancer enables HLA inference and antigen discovery. <i>Immunity</i> , 2021, 54, 586-602.e8.	6.6	80
70	Structure-based decoupling of the pro- and anti-inflammatory functions of interleukin-10. <i>Science</i> , 2021, 371, .	6.0	79
71	Structural Snapshots of Full-Length Jak1, a Transmembrane gp130/IL-6/IL-6R $\hat{\pm}$ Cytokine Receptor Complex, and the Receptor-Jak1 Holocomplex. <i>Structure</i> , 2011, 19, 45-55.	1.6	78
72	Structural basis for IL-12 and IL-23 receptor sharing reveals a gateway for shaping actions on T versus NK cells. <i>Cell</i> , 2021, 184, 983-999.e24.	13.5	78

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73	Structure of a Janus kinase cytokine receptor complex reveals the basis for dimeric activation. <i>Science</i> , 2022, 376, 163-169.	6.0	78
74	T cell receptor cross-reactivity expanded by dramatic peptide-MHC adaptability. <i>Nature Chemical Biology</i> , 2018, 14, 934-942.	3.9	77
75	Engineering of High Affinity CD47 Ectodomain as Signal Regulatory Protein 1 (SIRP1) Antagonists That Enhance Antibody-dependent Cellular Phagocytosis. <i>Journal of Biological Chemistry</i> , 2015, 290, 12650-12663.	1.6	75
76	Redirecting cell-type specific cytokine responses with engineered interleukin-4 superkines. <i>Nature Chemical Biology</i> , 2012, 8, 990-998.	3.9	73
77	Compensatory Energetic Mechanisms Mediating the Assembly of Signaling Complexes Between Interleukin-2 and its α , β , and γ Receptors. <i>Journal of Molecular Biology</i> , 2004, 339, 1115-1128.	2.0	70
78	Decoupling the Functional Pleiotropy of Stem Cell Factor by Tuning c-Kit Signaling. <i>Cell</i> , 2017, 168, 1041-1052.e18.	13.5	70
79	Structure of human Frizzled5 by fiducial-assisted cryo-EM supports a heterodimeric mechanism of canonical Wnt signaling. <i>ELife</i> , 2020, 9, .	2.8	68
80	A RECK-WNT7 Receptor-Ligand Interaction Enables Isoform-Specific Regulation of Wnt Bioavailability. <i>Cell Reports</i> , 2018, 25, 339-349.e9.	2.9	65
81	A human orthogonal IL-2 and IL-2R β system enhances CAR T cell expansion and antitumor activity in a murine model of leukemia. <i>Science Translational Medicine</i> , 2021, 13, eabg6986.	5.8	64
82	Multifarious Determinants of Cytokine Receptor Signaling Specificity. <i>Advances in Immunology</i> , 2014, 121, 1-39.	1.1	62
83	Extracellular Architecture of the SYG-1/SYG-2 Adhesion Complex Instructs Synaptogenesis. <i>Cell</i> , 2014, 156, 482-494.	13.5	59
84	Immune receptor inhibition through enforced phosphatase recruitment. <i>Nature</i> , 2020, 586, 779-784.	13.7	59
85	Engineering a Single-Agent Cytokine/Antibody Fusion That Selectively Expands Regulatory T Cells for Autoimmune Disease Therapy. <i>Journal of Immunology</i> , 2018, 201, 2094-2106.	0.4	58
86	Instructive roles for cytokine-receptor binding parameters in determining signaling and functional potency. <i>Science Signaling</i> , 2015, 8, ra114.	1.6	57
87	A Human IgSF Cell-Surface Interactome Reveals a Complex Network of Protein-Protein Interactions. <i>Cell</i> , 2020, 182, 1027-1043.e17.	13.5	57
88	Reconciling views on T cell receptor germline bias for MHC. <i>Trends in Immunology</i> , 2012, 33, 429-436.	2.9	53
89	Tuning T cell receptor sensitivity through catch bond engineering. <i>Science</i> , 2022, 376, eabl5282.	6.0	53
90	Synthekines are surrogate cytokine and growth factor agonists that compel signaling through non-natural receptor dimers. <i>ELife</i> , 2017, 6, .	2.8	51

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91	Inhibition of Delta-induced Notch signaling using fucose analogs. <i>Nature Chemical Biology</i> , 2018, 14, 65-71.	3.9	46
92	Selective expansion of regulatory T cells using an orthogonal IL-2/IL-2 receptor system facilitates transplantation tolerance. <i>Journal of Clinical Investigation</i> , 2021, 131, .	3.9	46
93	RTN4/NoGo-receptor binding to BAI adhesion-GPCRs regulates neuronal development. <i>Cell</i> , 2021, 184, 5869-5885.e25.	13.5	45
94	Rationally designed chemokine-based toxin targeting the viral G protein-coupled receptor US28 potently inhibits cytomegalovirus infection in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 8427-8432.	3.3	43
95	Deconstruction of the beaten Path-Sidestep interaction network provides insights into neuromuscular system development. <i>ELife</i> , 2017, 6, .	2.8	41
96	Viral GPCR US28 can signal in response to chemokine agonists of nearly unlimited structural degeneracy. <i>ELife</i> , 2018, 7, .	2.8	41
97	Potentiating adoptive cell therapy using synthetic IL-9 receptors. <i>Nature</i> , 2022, 607, 360-365.	13.7	41
98	The Intergenic Recombinant HLA-B*46:01 Has a Distinctive Peptidome that Includes KIR2DL3 Ligands. <i>Cell Reports</i> , 2017, 19, 1394-1405.	2.9	40
99	Wnt acylation and its functional implication in Wnt signalling regulation. <i>Biochemical Society Transactions</i> , 2015, 43, 211-216.	1.6	39
100	Trans-endocytosis of intact IL-15R α IL-15 complex from presenting cells into NK cells favors signaling for proliferation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 522-531.	3.3	38
101	Receptor subtype discrimination using extensive shape complementary designed interfaces. <i>Nature Structural and Molecular Biology</i> , 2019, 26, 407-414.	3.6	36
102	The tissue protective functions of interleukin-22 can be decoupled from pro-inflammatory actions through structure-based design. <i>Immunity</i> , 2021, 54, 660-672.e9.	6.6	36
103	Structure and selectivity engineering of the M ₁ muscarinic receptor toxin complex. <i>Science</i> , 2020, 369, 161-167.	6.0	35
104	Ligand-induced type II interleukin-4 receptor dimers are sustained by rapid re-association within plasma membrane microcompartments. <i>Nature Communications</i> , 2017, 8, 15976.	5.8	34
105	Facile discovery of surrogate cytokine agonists. <i>Cell</i> , 2022, 185, 1414-1430.e19.	13.5	33
106	Receptor dimer stabilization by hierarchical plasma membrane microcompartments regulates cytokine signaling. <i>Science Advances</i> , 2016, 2, e1600452.	4.7	31
107	A polymorphic residue that attenuates the antiviral potential of interferon lambda 4 in hominid lineages. <i>PLoS Pathogens</i> , 2018, 14, e1007307.	2.1	25
108	Tuning MPL signaling to influence hematopoietic stem cell differentiation and inhibit essential thrombocythemia progenitors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	24

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109	Calibration of cell-intrinsic interleukin-2 response thresholds guides design of a regulatory T cell biased agonist. <i>ELife</i> , 2021, 10, .	2.8	23
110	Stress-testing the relationship between T cell receptor/peptide-MHC affinity and cross-reactivity using peptide velcro. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E7369-E7378.	3.3	21
111	Super-enhancer-based identification of a BATF3/IL-2R α module reveals vulnerabilities in anaplastic large cell lymphoma. <i>Nature Communications</i> , 2021, 12, 5577.	5.8	21
112	Discovery of surrogate agonists for visceral fat Treg cells that modulate metabolic indices in vivo. <i>ELife</i> , 2020, 9, .	2.8	21
113	Interleukin-2 druggability is modulated by global conformational transitions controlled by a helical capping switch. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 7183-7192.	3.3	20
114	Synergy of a STING agonist and an IL-2 superkine in cancer immunotherapy against MHC I ⁺ deficient and MHC I ⁻ tumors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2200568119.	3.3	20
115	Selective targeting of ligand-dependent and -independent signaling by GPCR conformation-specific anti-US28 intrabodies. <i>Nature Communications</i> , 2021, 12, 4357.	5.8	18
116	Structural basis for the constitutive activity and immunomodulatory properties of the Epstein-Barr virus-encoded G protein-coupled receptor BILF1. <i>Immunity</i> , 2021, 54, 1405-1416.e7.	6.6	18
117	Structure of the IL-27 quaternary receptor signaling complex. <i>ELife</i> , 2022, 11, .	2.8	18
118	RasGRP1 is a potential biomarker for stratifying anti-EGFR therapy response in colorectal cancer. <i>JCI Insight</i> , 2019, 4, .	2.3	17
119	A strategy for the selection of monovalent antibodies that span protein dimer interfaces. <i>Journal of Biological Chemistry</i> , 2019, 294, 13876-13886.	1.6	16
120	Surrogate R-spondins for tissue-specific potentiation of Wnt Signaling. <i>PLoS ONE</i> , 2020, 15, e0226928.	1.1	15
121	Mesenchymal-epithelial crosstalk shapes intestinal regionalisation via Wnt and Shh signalling. <i>Nature Communications</i> , 2022, 13, 715.	5.8	15
122	Salmonella Infection Enhances Erythropoietin Production by the Kidney and Liver, Which Correlates with Elevated Bacterial Burdens. <i>Infection and Immunity</i> , 2016, 84, 2833-2841.	1.0	13
123	Dual Arms of Adaptive Immunity: Division of Labor and Collaboration between B and T Cells. <i>Cell</i> , 2019, 179, 3-7.	13.5	12
124	Interleukin-2 superkines by computational design. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2117401119.	3.3	12
125	T cells targeted to TdT kill leukemic lymphoblasts while sparing normal lymphocytes. <i>Nature Biotechnology</i> , 2022, 40, 488-498.	9.4	12
126	Atypical structural snapshots of human cytomegalovirus GPCR interactions with host G proteins. <i>Science Advances</i> , 2022, 8, eabl5442.	4.7	11

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127	Viral G Proteinâ€‘Coupled Receptors Encoded by Î²- and Î³-Herpesviruses. Annual Review of Virology, 2022, 9, 329-351.	3.0	11
128	Interrogating the recognition landscape of a conserved HIV-specific TCR reveals distinct bacterial peptide cross-reactivity. ELife, 2020, 9, .	2.8	6
129	Cryoâ€‘EM structure of the ILâ€‘10 receptor complex provides a blueprint for ligand engineering. FEBS Journal, 2022, 289, 8032-8036.	2.2	3
130	Insights into immune structure, recognition, and signaling. Immunological Reviews, 2012, 250, 5-9.	2.8	2
131	Self-Determination in the T Cell Repertoire. Immunity, 2015, 42, 8-10.	6.6	0
132	A Conversation with Dr. K. Christopher Garcia. Journal of Interferon and Cytokine Research, 2021, 41, 355-359.	0.5	0
133	CD47 Blockade Enhances Therapeutic Activity of TCR Mimic Antibodies to Ultra-Low Density Cancer Epitopes through Cytokine Feed Forward Mechanisms. Blood, 2016, 128, 4048-4048.	0.6	0