K Christopher Garcia

List of Publications by Year
in descending order

133 papers	22,149 citations	12303 69 h-index	13338 130 g-index
153 all docs	153 docs citations	153 times ranked	27515 citing authors

#	Article	IF	Citations
1	Cryoâ€EM structure of the ILâ€10 receptor complex provides a blueprint for ligand engineering. FEBS Journal, 2022, 289, 8032-8036.	2.2	3
2	Atypical structural snapshots of human cytomegalovirus GPCR interactions with host G proteins. Science Advances, 2022, 8, eabl5442.	4.7	11
3	Clonally expanded B cells in multiple sclerosis bind EBV EBNA1 and GlialCAM. Nature, 2022, 603, 321-327.	13.7	343
4	Mesenchymal-epithelial crosstalk shapes intestinal regionalisation via Wnt and Shh signalling. Nature Communications, 2022, 13, 715.	5.8	15
5	Interleukin-2 superkines by computational design. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2117401119.	3.3	12
6	Design of protein-binding proteins from the target structure alone. Nature, 2022, 605, 551-560.	13.7	164
7	Tuning T cell receptor sensitivity through catch bond engineering. Science, 2022, 376, eabl5282.	6.0	53
8	Structure of a Janus kinase cytokine receptor complex reveals the basis for dimeric activation. Science, 2022, 376, 163-169.	6.0	78
9	T cells targeted to TdT kill leukemic lymphoblasts while sparing normal lymphocytes. Nature Biotechnology, 2022, 40, 488-498.	9.4	12
10	Facile discovery of surrogate cytokine agonists. Cell, 2022, 185, 1414-1430.e19.	13.5	33
11	Structure of the IL-27 quaternary receptor signaling complex. ELife, 2022, 11, .	2.8	18
12	Synergy of a STING agonist and an IL-2 superkine in cancer immunotherapy against MHC Iâ€“deficient and MHC I ⁺ tumors. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2200568119.	3.3	20
13	Viral G Proteinâ€“Coupled Receptors Encoded by Î²- and Î³-Herpesviruses. Annual Review of Virology, 2022, 9, 329-351.	3.0	11
14	Potentiating adoptive cell therapy using synthetic IL-9 receptors. Nature, 2022, 607, 360-365.	13.7	41
15	Structural basis for IL-12 and IL-23 receptor sharing reveals a gateway for shaping actions on T versus NK cells. Cell, 2021, 184, 983-999.e24.	13.5	78
16	Structure-based decoupling of the pro- and anti-inflammatory functions of interleukin-10. Science, 2021, 371, .	6.0	79
17	Global analysis of shared TÂcell specificities in human non-small cell lung cancer enables HLA inference and antigen discovery. Immunity, 2021, 54, 586-602.e8.	6.6	80
18	The tissue protective functions of interleukin-22 can be decoupled from pro-inflammatory actions through structure-based design. Immunity, 2021, 54, 660-672.e9.	6.6	36

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19	Selective expansion of regulatory T cells using an orthogonal IL-2/IL-2 receptor system facilitates transplantation tolerance. Journal of Clinical Investigation, 2021, 131, .	3.9	46
20	Calibration of cell-intrinsic interleukin-2 response thresholds guides design of a regulatory T cell biased agonist. ELife, 2021, 10, .	2.8	23
21	Selective targeting of ligand-dependent and -independent signaling by GPCR conformation-specific anti-US28 intrabodies. Nature Communications, 2021, 12, 4357.	5.8	18
22	Structural basis for the constitutive activity and immunomodulatory properties of the Epstein-Barr virus-encoded G protein-coupled receptor BILF1. Immunity, 2021, 54, 1405-1416.e7.	6.6	18
23	Accurate prediction of protein structures and interactions using a three-track neural network. Science, 2021, 373, 871-876.	6.0	2,843
24	An engineered IL-2 partial agonist promotes CD8+ T cell stemness. Nature, 2021, 597, 544-548.	13.7	94
25	Super-enhancer-based identification of a BATF3/IL-2Râ”module reveals vulnerabilities in anaplastic large cell lymphoma. Nature Communications, 2021, 12, 5577.	5.8	21
26	Tuning MPL signaling to influence hematopoietic stem cell differentiation and inhibit essential thrombocythemia progenitors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	24
27	A Conversation with Dr. K. Christopher Garcia. Journal of Interferon and Cytokine Research, 2021, 41, 355-359.	0.5	0
28	RTN4/NoGo-receptor binding to BAI adhesion-GPCRs regulates neuronal development. Cell, 2021, 184, 5869-5885.e25.	13.5	45
29	A human orthogonal IL-2 and IL-2RÎ² system enhances CAR T cell expansion and antitumor activity in a murine model of leukemia. Science Translational Medicine, 2021, 13, eabg6986.	5.8	64
30	Surrogate R-spondins for tissue-specific potentiation of Wnt Signaling. PLoS ONE, 2020, 15, e0226928.	1.1	15
31	Trans-endocytosis of intact IL-15RÎ±â€“IL-15 complex from presenting cells into NK cells favors signaling for proliferation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 522-531.	3.3	38
32	Next-Generation Surrogate Wnts Support Organoid Growth and Deconvolute Frizzled Pleiotropy InÂVivo. Cell Stem Cell, 2020, 27, 840-851.e6.	5.2	84
33	Immune receptor inhibition through enforced phosphatase recruitment. Nature, 2020, 586, 779-784.	13.7	59
34	A Human IgSF Cell-Surface Interactome Reveals a Complex Network of Protein-Protein Interactions. Cell, 2020, 182, 1027-1043.e17.	13.5	57
35	Progenitor identification and SARS-CoV-2 infection in human distal lung organoids. Nature, 2020, 588, 670-675.	13.7	273
36	Mutational signature in colorectal cancer caused by genotoxic pks+ E. coli. Nature, 2020, 580, 269-273.	13.7	587

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37	Wnt Activation and Reduced Cell-Cell Contact Synergistically Induce Massive Expansion of Functional Human iPSC-Derived Cardiomyocytes. Cell Stem Cell, 2020, 27, 50-63.e5.	5.2	112
38	Structure and selectivity engineering of the M ₁ muscarinic receptor toxin complex. Science, 2020, 369, 161-167.	6.0	35
39	Mechanism of homodimeric cytokine receptor activation and dysregulation by oncogenic mutations. Science, 2020, 367, 643-652.	6.0	123
40	Interleukin-2 druggability is modulated by global conformational transitions controlled by a helical capping switch. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7183-7192.	3.3	20
41	Interrogating the recognition landscape of a conserved HIV-specific TCR reveals distinct bacterial peptide cross-reactivity. ELife, 2020, 9, .	2.8	6
42	Discovery of surrogate agonists for visceral fat Treg cells that modulate metabolic indices in vivo. ELife, 2020, 9, .	2.8	21
43	Structure of human Frizzled5 by fiducial-assisted cryo-EM supports a heterodimeric mechanism of canonical Wnt signaling. ELife, 2020, 9, .	2.8	68
44	Opposing T cell responses in experimental autoimmune encephalomyelitis. Nature, 2019, 572, 481-487.	13.7	141
45	A strategy for the selection of monovalent antibodies that span protein dimer interfaces. Journal of Biological Chemistry, 2019, 294, 13876-13886.	1.6	16
46	Dual Arms of Adaptive Immunity: Division of Labor and Collaboration between B and T Cells. Cell, 2019, 179, 3-7.	13.5	12
47	Topological control of cytokine receptor signaling induces differential effects in hematopoiesis. Science, 2019, 364, .	6.0	89
48	Receptor subtype discrimination using extensive shape complementary designed interfaces. Nature Structural and Molecular Biology, 2019, 26, 407-414.	3.6	36
49	Structure of the IFNÎ³ receptor complex guides design of biased agonists. Nature, 2019, 567, 56-60.	13.7	85
50	In vivo molecular imaging for immunotherapy using ultra-bright near-infrared-IIb rare-earth nanoparticles. Nature Biotechnology, 2019, 37, 1322-1331.	9.4	398
51	De novo design of potent and selective mimics of IL-2 and IL-15. Nature, 2019, 565, 186-191.	13.7	362
52	RasGRP1 is a potential biomarker for stratifying anti-EGFR therapy response in colorectal cancer. JCI Insight, 2019, 4, .	2.3	17
53	Selective targeting of engineered T cells using orthogonal IL-2 cytokine-receptor complexes. Science, 2018, 359, 1037-1042.	6.0	254
54	Antigen Identification for Orphan T Cell Receptors Expressed on Tumor-Infiltrating Lymphocytes. Cell, 2018, 172, 549-563.e16.	13.5	226

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55	Novel and shared neoantigen derived from histone 3 variant H3.3K27M mutation for glioma T cell therapy. Journal of Experimental Medicine, 2018, 215, 141-157.	4.2	186
56	Inhibition of Delta-induced Notch signaling using fucose analogs. Nature Chemical Biology, 2018, 14, 65-71.	3.9	46
57	Differential induction of interferon stimulated genes between type I and type III interferons is independent of interferon receptor abundance. PLoS Pathogens, 2018, 14, e1007420.	2.1	100
58	A RECK-WNT7 Receptor-Ligand Interaction Enables Isoform-Specific Regulation of Wnt Bioavailability. Cell Reports, 2018, 25, 339-349.e9.	2.9	65
59	A polymorphic residue that attenuates the antiviral potential of interferon lambda 4 in hominid lineages. PLoS Pathogens, 2018, 14, e1007307.	2.1	25
60	T cell receptor cross-reactivity expanded by dramatic peptideâ€“MHC adaptability. Nature Chemical Biology, 2018, 14, 934-942.	3.9	77
61	Disruption of TET2 promotes the therapeutic efficacy of CD19-targeted T cells. Nature, 2018, 558, 307-312.	13.7	574
62	A human anti-IL-2 antibody that potentiates regulatory T cells by a structure-based mechanism. Nature Medicine, 2018, 24, 1005-1014.	15.2	165
63	Isolation of a Structural Mechanism for Uncoupling T Cell Receptor Signaling from Peptide-MHC Binding. Cell, 2018, 174, 672-687.e27.	13.5	229
64	Stress-testing the relationship between T cell receptor/peptide-MHC affinity and cross-reactivity using peptide velcro. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7369-E7378.	3.3	21
65	Engineering a Single-Agent Cytokine/Antibody Fusion That Selectively Expands Regulatory T Cells for Autoimmune Disease Therapy. Journal of Immunology, 2018, 201, 2094-2106.	0.4	58
66	Viral GPCR US28 can signal in response to chemokine agonists of nearly unlimited structural degeneracy. ELife, 2018, 7, .	2.8	41
67	Functional Selectivity in Cytokine Signaling Revealed Through a Pathogenic EPO Mutation. Cell, 2017, 168, 1053-1064.e15.	13.5	98
68	Decoupling the Functional Pleiotropy of Stem Cell Factor by Tuning c-Kit Signaling. Cell, 2017, 168, 1041-1052.e18.	13.5	70
69	Notch-Jagged complex structure implicates a catch bond in tuning ligand sensitivity. Science, 2017, 355, 1320-1324.	6.0	232
70	Intratumoural heterogeneity generated by Notch signalling promotes small-cell lung cancer. Nature, 2017, 545, 360-364.	13.7	336
71	Surrogate Wnt agonists that phenocopy canonical Wnt and Î²-catenin signalling. Nature, 2017, 545, 234-237.	13.7	264
72	Non-equivalence of Wnt and R-spondin ligands during Lgr5+ intestinal stem-cell self-renewal. Nature, 2017, 545, 238-242.	13.7	327

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73	The Intergenic Recombinant HLA-Bâˆ—46:01 Has a Distinctive Peptidome that Includes KIR2DL3 Ligands. Cell Reports, 2017, 19, 1394-1405.	2.9	40
74	The IFN-Î»-IFN-Î»R1-IL-10RÎ² Complex Reveals Structural Features Underlying Type III IFN Functional Plasticity. Immunity, 2017, 46, 379-392.	6.6	89
75	In vitro reconstitution of T cell receptor-mediated segregation of the CD45 phosphatase. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E9338-E9345.	3.3	83
76	Localized CD47 blockade enhances immunotherapy for murine melanoma. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10184-10189.	3.3	103
77	Ligand-induced type II interleukin-4 receptor dimers are sustained by rapid re-association within plasma membrane microcompartments. Nature Communications, 2017, 8, 15976.	5.8	34
78	Synthekines are surrogate cytokine and growth factor agonists that compel signaling through non-natural receptor dimers. ELife, 2017, 6, .	2.8	51
79	Deconstruction of the beaten Path-Sidestep interaction network provides insights into neuromuscular system development. ELife, 2017, 6, .	2.8	41
80	Receptor dimer stabilization by hierarchical plasma membrane microcompartments regulates cytokine signaling. Science Advances, 2016, 2, e1600452.	4.7	31
81	Durable antitumor responses to CD47 blockade require adaptive immune stimulation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E2646-54.	3.3	272
82	Genetic variation in MHC proteins is associated with T cell receptor expression biases. Nature Genetics, 2016, 48, 995-1002.	9.4	151
83	Salmonella Infection Enhances Erythropoietin Production by the Kidney and Liver, Which Correlates with Elevated Bacterial Burdens. Infection and Immunity, 2016, 84, 2833-2841.	1.0	13
84	Data publication with the structural biology data grid supports live analysis. Nature Communications, 2016, 7, 10882.	5.8	113
85	Alpha and Beta Type 1 Interferon Signaling: Passage for Diverse Biologic Outcomes. Cell, 2016, 164, 349-352.	13.5	120
86	Structural interplay between germline interactions and adaptive recognition determines the bandwidth of TCR-peptide-MHC cross-reactivity. Nature Immunology, 2016, 17, 87-94.	7.0	122
87	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
88	Wnt acylation and its functional implication in Wnt signalling regulation. Biochemical Society Transactions, 2015, 43, 211-216.	1.6	39
89	Antibodies to Interleukin-2 Elicit Selective T Cell Subset Potentiation through Distinct Conformational Mechanisms. Immunity, 2015, 42, 815-825.	6.6	191
90	Tuning Cytokine Receptor Signaling by Re-orienting Dimer Geometry with Surrogate Ligands. Cell, 2015, 160, 1196-1208.	13.5	138

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91	Instructive roles for cytokine-receptor binding parameters in determining signaling and functional potency. Science Signaling, 2015, 8, ra114.	1.6	57
92	Control of Synaptic Connectivity by a Network of Drosophila IgSF Cell Surface Proteins. Cell, 2015, 163, 1770-1782.	13.5	155
93	Self-Determination in the T Cell Repertoire. Immunity, 2015, 42, 8-10.	6.6	0
94	Structural basis for Notch1 engagement of Delta-like 4. Science, 2015, 347, 847-853.	6.0	222
95	Structural basis for chemokine recognition and activation of a viral G proteinâ€“coupled receptor. Science, 2015, 347, 1113-1117.	6.0	261
96	Interleukin-2 Activity Can Be Fine Tuned with Engineered Receptor Signaling Clamps. Immunity, 2015, 42, 826-838.	6.6	147
97	â€œVelcroâ€•Engineering of High Affinity CD47 Ectodomain as Signal Regulatory Protein Î± (SIRPÎ±) Antagonists That Enhance Antibody-dependent Cellular Phagocytosis. Journal of Biological Chemistry, 2015, 290, 12650-12663.	1.6	75
98	Rationally designed chemokine-based toxin targeting the viral G protein-coupled receptor US28 potently inhibits cytomegalovirus infection in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8427-8432.	3.3	43
99	Insights into Cytokineâ€“Receptor Interactions from Cytokine Engineering. Annual Review of Immunology, 2015, 33, 139-167.	9.5	204
100	Molecular architecture of the Î±Î² T cell receptorâ€“CD3 complex. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17576-17581.	3.3	107
101	Multifarious Determinants of Cytokine Receptor Signaling Specificity. Advances in Immunology, 2014, 121, 1-39.	1.1	62
102	Non-invasive intravital imaging of cellular differentiation with a bright red-excitable fluorescent protein. Nature Methods, 2014, 11, 572-578.	9.0	196
103	Screening and large-scale expression of membrane proteins in mammalian cells for structural studies. Nature Protocols, 2014, 9, 2574-2585.	5.5	532
104	Extracellular Architecture of the SYG-1/SYG-2 Adhesion Complex Instructs Synaptogenesis. Cell, 2014, 156, 482-494.	13.5	59
105	Deconstructing the Peptide-MHC Specificity of T Cell Recognition. Cell, 2014, 157, 1073-1087.	13.5	483
106	Activation and allosteric modulation of a muscarinic acetylcholine receptor. Nature, 2013, 504, 101-106.	13.7	779
107	Adrenaline-activated structure of Î²2-adrenoceptor stabilized by an engineered nanobody. Nature, 2013, 502, 575-579.	13.7	436
108	Engineered SIRPÎ± Variants as Immunotherapeutic Adjuvants to Anticancer Antibodies. Science, 2013, 341, 88-91.	6.0	401

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109	An Extracellular Interactome of Immunoglobulin and LRR Proteins Reveals Receptor-Ligand Networks. Cell, 2013, 154, 228-239.	13.5	207
110	Redirecting cell-type specific cytokine responses with engineered interleukin-4 superkines. Nature Chemical Biology, 2012, 8, 990-998.	3.9	73
111	Mechanistic and structural insight into the functional dichotomy between IL-2 and IL-15. Nature Immunology, 2012, 13, 1187-1195.	7.0	206
112	Structural and dynamic determinants of type <scp>I</scp> interferon receptor assembly and their functional interpretation. Immunological Reviews, 2012, 250, 317-334.	2.8	201
113	Insights into immune structure, recognition, and signaling. Immunological Reviews, 2012, 250, 5-9.	2.8	2
114	Exploiting a natural conformational switch to engineer an interleukin-2 â€˜superkineâ€™. Nature, 2012, 484, 529-533.	13.7	438
115	Reconciling views on T cell receptor germline bias for MHC. Trends in Immunology, 2012, 33, 429-436.	2.9	53
116	Structural Basis of Wnt Recognition by Frizzled. Science, 2012, 337, 59-64.	6.0	711
117	Structural Linkage between Ligand Discrimination and Receptor Activation by Type I Interferons. Cell, 2011, 146, 621-632.	13.5	310
118	Structural Snapshots of Full-Length Jak1, a Transmembrane gp130/IL-6/IL-6RÎ± Cytokine Receptor Complex, and the Receptor-Jak1 Holocomplex. Structure, 2011, 19, 45-55.	1.6	78
119	T Cell Receptor Signaling Is Limited by Docking Geometry to Peptide-Major Histocompatibility Complex. Immunity, 2011, 35, 681-693.	6.6	229
120	The molecular basis of TCR germline bias for MHC is surprisingly simple. Nature Immunology, 2009, 10, 143-147.	7.0	219
121	Structural Biology of Shared Cytokine Receptors. Annual Review of Immunology, 2009, 27, 29-60.	9.5	348
122	Structural Organization of a Full-Length gp130/LIF-R Cytokine Receptor Transmembrane Complex. Molecular Cell, 2008, 31, 737-748.	4.5	94
123	BacMam system for high-level expression of recombinant soluble and membrane glycoproteins for structural studies. Protein Expression and Purification, 2008, 62, 160-170.	0.6	120
124	Molecular and Structural Basis of Cytokine Receptor Pleiotropy in the Interleukin-4/13 System. Cell, 2008, 132, 259-272.	13.5	462
125	Polyspecificity of T cell and B cell receptor recognition. Seminars in Immunology, 2007, 19, 216-224.	2.7	194
126	Structural and Mechanistic Insights into Nerve Growth Factor Interactions with the TrkA and p75 Receptors. Neuron, 2007, 53, 25-38.	3.8	270

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127	Structural Insight into Pre-B Cell Receptor Function. Science, 2007, 316, 291-294.	6.0	101
128	How the T Cell Receptor Sees Antigenâ€"A Structural View. Cell, 2005, 122, 333-336.	13.5	159
129	Structure of the Quaternary Complex of Interleukin-2 with Its Â, Â, and Âc Receptors. Science, 2005, 310, 1159-1163.	6.0	421
130	Compensatory Energetic Mechanisms Mediating the Assembly of Signaling Complexes Between Interleukin-2 and its Ì±, Î², and Î³c Receptors. Journal of Molecular Biology, 2004, 339, 1115-1128.	2.0	70
131	Hexameric Structure and Assembly of the Interleukin-6/IL-6 Â-Receptor/gp130 Complex. Science, 2003, 300, 2101-2104.	6.0	554
132	Structure of an Extracellular gp130 Cytokine Receptor Signaling Complex. Science, 2001, 291, 2150-2155.	6.0	248
133	Allosteric Activation of a Spring-Loaded Natriuretic Peptide Receptor Dimer by Hormone. Science, 2001, 293, 1657-1662.	6.0	159