

K Christopher Garcia

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131
papers

12,924
citations

59
h-index

113
g-index

153
ext. papers

18,029
ext. citations

26.9
avg, IF

6.28
L-index

#	Paper	IF	Citations
131	Activation and allosteric modulation of a muscarinic acetylcholine receptor. <i>Nature</i> , 2013 , 504, 101-6	50.4	639
130	Structural basis of Wnt recognition by Frizzled. <i>Science</i> , 2012 , 337, 59-64	33.3	563
129	Accurate prediction of protein structures and interactions using a three-track neural network. <i>Science</i> , 2021 , 373, 871-876	33.3	522
128	Hexameric structure and assembly of the interleukin-6/IL-6 alpha-receptor/gp130 complex. <i>Science</i> , 2003 , 300, 2101-4	33.3	462
127	Molecular and structural basis of cytokine receptor pleiotropy in the interleukin-4/13 system. <i>Cell</i> , 2008 , 132, 259-72	56.2	362
126	Disruption of TET2 promotes the therapeutic efficacy of CD19-targeted T cells. <i>Nature</i> , 2018 , 558, 307-312	50.4	362
125	Deconstructing the peptide-MHC specificity of T cell recognition. <i>Cell</i> , 2014 , 157, 1073-87	56.2	345
124	Adrenaline-activated structure of β -adrenoceptor stabilized by an engineered nanobody. <i>Nature</i> , 2013 , 502, 575-579	50.4	337
123	Screening and large-scale expression of membrane proteins in mammalian cells for structural studies. <i>Nature Protocols</i> , 2014 , 9, 2574-85	18.8	331
122	Exploiting a natural conformational switch to engineer an interleukin-2 SuperkineS <i>Nature</i> , 2012 , 484, 529-33	50.4	320
121	Structure of the quaternary complex of interleukin-2 with its alpha, beta, and gammac receptors. <i>Science</i> , 2005 , 310, 1159-63	33.3	315
120	Engineered SIRP variants as immunotherapeutic adjuvants to anticancer antibodies. <i>Science</i> , 2013 , 341, 88-91	33.3	295
119	Mutational signature in colorectal cancer caused by genotoxic pks E. coli. <i>Nature</i> , 2020 , 580, 269-273	50.4	286
118	Structural biology of shared cytokine receptors. <i>Annual Review of Immunology</i> , 2009 , 27, 29-60	34.7	278
117	Structural linkage between ligand discrimination and receptor activation by type I interferons. <i>Cell</i> , 2011 , 146, 621-32	56.2	253
116	Structural and mechanistic insights into nerve growth factor interactions with the TrkA and p75 receptors. <i>Neuron</i> , 2007 , 53, 25-38	13.9	239
115	Structure of an extracellular gp130 cytokine receptor signaling complex. <i>Science</i> , 2001 , 291, 2150-5	33.3	216

114	Structural biology. Structural basis for chemokine recognition and activation of a viral G protein-coupled receptor. <i>Science</i> , 2015 , 347, 1113-7	33.3	211
113	Non-equivalence of Wnt and R-spondin ligands during Lgr5 intestinal stem-cell self-renewal. <i>Nature</i> , 2017 , 545, 238-242	50.4	209
112	In vivo molecular imaging for immunotherapy using ultra-bright near-infrared-IIb rare-earth nanoparticles. <i>Nature Biotechnology</i> , 2019 , 37, 1322-1331	44.5	198
111	Intratumoural heterogeneity generated by Notch signalling promotes small-cell lung cancer. <i>Nature</i> , 2017 , 545, 360-364	50.4	193
110	De novo design of potent and selective mimics of IL-2 and IL-15. <i>Nature</i> , 2019 , 565, 186-191	50.4	184
109	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	11.5	183
108	T cell receptor signaling is limited by docking geometry to peptide-major histocompatibility complex. <i>Immunity</i> , 2011 , 35, 681-93	32.3	182
107	The molecular basis of TCR germline bias for MHC is surprisingly simple. <i>Nature Immunology</i> , 2009 , 10, 143-7	19.1	179
106	Structural biology. Structural basis for Notch1 engagement of Delta-like 4. <i>Science</i> , 2015 , 347, 847-53	33.3	173
105	Surrogate Wnt agonists that phenocopy canonical Wnt and Eatenin signalling. <i>Nature</i> , 2017 , 545, 234-237	50.4	165
104	Antigen Identification for Orphan T Cell Receptors Expressed on Tumor-Infiltrating Lymphocytes. <i>Cell</i> , 2018 , 172, 549-563.e16	56.2	160
103	Polyspecificity of T cell and B cell receptor recognition. <i>Seminars in Immunology</i> , 2007 , 19, 216-24	10.7	159
102	Notch-Jagged complex structure implicates a catch bond in tuning ligand sensitivity. <i>Science</i> , 2017 , 355, 1320-1324	33.3	156
101	Selective targeting of engineered T cells using orthogonal IL-2 cytokine-receptor complexes. <i>Science</i> , 2018 , 359, 1037-1042	33.3	149
100	Structural and dynamic determinants of type I interferon receptor assembly and their functional interpretation. <i>Immunological Reviews</i> , 2012 , 250, 317-34	11.3	149
99	Mechanistic and structural insight into the functional dichotomy between IL-2 and IL-15. <i>Nature Immunology</i> , 2012 , 13, 1187-95	19.1	148
98	Allosteric activation of a spring-loaded natriuretic peptide receptor dimer by hormone. <i>Science</i> , 2001 , 293, 1657-62	33.3	142
97	Isolation of a Structural Mechanism for Uncoupling T Cell Receptor Signaling from Peptide-MHC Binding. <i>Cell</i> , 2018 , 174, 672-687.e27	56.2	141

96	Non-invasive intravital imaging of cellular differentiation with a bright red-excitable fluorescent protein. <i>Nature Methods</i> , 2014 , 11, 572-8	21.6	141
95	An extracellular interactome of immunoglobulin and LRR proteins reveals receptor-ligand networks. <i>Cell</i> , 2013 , 154, 228-39	56.2	135
94	Insights into cytokine-receptor interactions from cytokine engineering. <i>Annual Review of Immunology</i> , 2015 , 33, 139-67	34.7	129
93	How the T cell receptor sees antigen--a structural view. <i>Cell</i> , 2005 , 122, 333-6	56.2	118
92	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	16.6	118
91	Antibodies to Interleukin-2 Elicit Selective T Cell Subset Potentiation through Distinct Conformational Mechanisms. <i>Immunity</i> , 2015 , 42, 815-25	32.3	111
90	Control of Synaptic Connectivity by a Network of Drosophila IgSF Cell Surface Proteins. <i>Cell</i> , 2015 , 163, 1770-1782	56.2	105
89	Progenitor identification and SARS-CoV-2 infection in human distal lung organoids. <i>Nature</i> , 2020 , 588, 670-675	50.4	103
88	Tuning cytokine receptor signaling by re-orienting dimer geometry with surrogate ligands. <i>Cell</i> , 2015 , 160, 1196-208	56.2	102
87	Interleukin-2 activity can be fine tuned with engineered receptor signaling clamps. <i>Immunity</i> , 2015 , 42, 826-38	32.3	100
86	BacMam system for high-level expression of recombinant soluble and membrane glycoproteins for structural studies. <i>Protein Expression and Purification</i> , 2008 , 62, 160-70	2	100
85	Alpha and Beta Type 1 Interferon Signaling: Passage for Diverse Biologic Outcomes. <i>Cell</i> , 2016 , 164, 349-52	56.2	91
84	A human anti-IL-2 antibody that potentiates regulatory T cells by a structure-based mechanism. <i>Nature Medicine</i> , 2018 , 24, 1005-1014	50.5	91
83	Molecular architecture of the T cell receptor-CD3 complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 17576-81	11.5	81
82	Structural insight into pre-B cell receptor function. <i>Science</i> , 2007 , 316, 291-4	33.3	81
81	Genetic variation in MHC proteins is associated with T cell receptor expression biases. <i>Nature Genetics</i> , 2016 , 48, 995-1002	36.3	79
80	Data publication with the structural biology data grid supports live analysis. <i>Nature Communications</i> , 2016 , 7, 10882	17.4	78
79	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	19.1	78

78	Structural organization of a full-length gp130/LIF-R cytokine receptor transmembrane complex. <i>Molecular Cell</i> , 2008 , 31, 737-48	17.6	76
77	Opposing T cell responses in experimental autoimmune encephalomyelitis. <i>Nature</i> , 2019 , 572, 481-487	50.4	70
76	Functional Selectivity in Cytokine Signaling Revealed Through a Pathogenic EPO Mutation. <i>Cell</i> , 2017 , 168, 1053-1064.e15	56.2	68
75	Structural snapshots of full-length Jak1, a transmembrane gp130/IL-6/IL-6R α cytokine receptor complex, and the receptor-Jak1 holocomplex. <i>Structure</i> , 2011 , 19, 45-55	5.2	67
74	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	11.5	64
73	Compensatory energetic mechanisms mediating the assembly of signaling complexes between interleukin-2 and its alpha, beta, and gamma(c) receptors. <i>Journal of Molecular Biology</i> , 2004 , 339, 1115-1128	6.5	62
72	The IFN- β /IFN- β 1-IL-10R α Complex Reveals Structural Features Underlying Type III IFN Functional Plasticity. <i>Immunity</i> , 2017 , 46, 379-392	32.3	59
71	Redirecting cell-type specific cytokine responses with engineered interleukin-4 superkines. <i>Nature Chemical Biology</i> , 2012 , 8, 990-8	11.7	59
70	"Velcro" 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, 12650-63	5.4	58
69	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	7.6	55
68	Clonally Expanded B Cells in Multiple Sclerosis Bind EBV EBNA1 and GlialCAM.. <i>Nature</i> , 2022 ,	50.4	51
67	Decoupling the Functional Pleiotropy of Stem Cell Factor by Tuning c-Kit Signaling. <i>Cell</i> , 2017 , 168, 1041-1052.e18	50.5	51
66	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	11.5	50
65	Topological control of cytokine receptor signaling induces differential effects in hematopoiesis. <i>Science</i> , 2019 , 364,	33.3	47
64	Mechanism of homodimeric cytokine receptor activation and dysregulation by oncogenic mutations. <i>Science</i> , 2020 , 367, 643-652	33.3	47
63	Extracellular architecture of the SYG-1/SYG-2 adhesion complex instructs synaptogenesis. <i>Cell</i> , 2014 , 156, 482-94	56.2	46
62	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	18	45
61	Reconciling views on T cell receptor germline bias for MHC. <i>Trends in Immunology</i> , 2012 , 33, 429-36	14.4	43

60	A RECK-WNT7 Receptor-Ligand Interaction Enables Isoform-Specific Regulation of Wnt Bioavailability. <i>Cell Reports</i> , 2018 , 25, 339-349.e9	10.6	43
59	T cell receptor cross-reactivity expanded by dramatic peptide-MHC adaptability. <i>Nature Chemical Biology</i> , 2018 , 14, 934-942	11.7	43
58	Structure of the IFN γ receptor complex guides design of biased agonists. <i>Nature</i> , 2019 , 567, 56-60	50.4	41
57	Multifarious determinants of cytokine receptor signaling specificity. <i>Advances in Immunology</i> , 2014 , 121, 1-39	5.6	39
56	Instructive roles for cytokine-receptor binding parameters in determining signaling and functional potency. <i>Science Signaling</i> , 2015 , 8, ra114	8.8	35
55	Inhibition of Delta-induced Notch signaling using fucose analogs. <i>Nature Chemical Biology</i> , 2018 , 14, 65-71	11.7	35
54	Next-Generation Surrogate Wnts Support Organoid Growth and Deconvolute Frizzled Pleiotropy In Vivo. <i>Cell Stem Cell</i> , 2020 , 27, 840-851.e6	18	33
53	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, 8427-32	11.5	30
52	Synthekines are surrogate cytokine and growth factor agonists that compel signaling through non-natural receptor dimers. <i>ELife</i> , 2017 , 6,	8.9	29
51	Wnt acylation and its functional implication in Wnt signalling regulation. <i>Biochemical Society Transactions</i> , 2015 , 43, 211-6	5.1	28
50	The Intergenic Recombinant HLA-B*46:01 Has a Distinctive Peptidome that Includes KIR2DL3 Ligands. <i>Cell Reports</i> , 2017 , 19, 1394-1405	10.6	26
49	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	5.3	25
48	Viral GPCR US28 can signal in response to chemokine agonists of nearly unlimited structural degeneracy. <i>ELife</i> , 2018 , 7,	8.9	23
47	Structure of human Frizzled5 by fiducial-assisted cryo-EM supports a heterodimeric mechanism of canonical Wnt signaling. <i>ELife</i> , 2020 , 9,	8.9	23
46	Deconstruction of the beaten Path-Sidestep interaction network provides insights into neuromuscular system development. <i>ELife</i> , 2017 , 6,	8.9	22
45	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	56.2	21
44	Receptor subtype discrimination using extensive shape complementary designed interfaces. <i>Nature Structural and Molecular Biology</i> , 2019 , 26, 407-414	17.6	19
43	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	11.5	19

42	-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	11.5	19
41	Structure-based decoupling of the pro- and anti-inflammatory functions of interleukin-10. <i>Science</i> , 2021 , 371,	33.3	19
40	A Human IgSF Cell-Surface Interactome Reveals a Complex Network of Protein-Protein Interactions. <i>Cell</i> , 2020 , 182, 1027-1043.e17	56.2	18
39	Receptor dimer stabilization by hierarchical plasma membrane microcompartments regulates cytokine signaling. <i>Science Advances</i> , 2016 , 2, e1600452	14.3	18
38	Progenitor identification and SARS-CoV-2 infection in long-term human distal lung organoid cultures 2020 ,		17
37	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	32.3	16
36	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	17.4	15
35	Immune receptor inhibition through enforced phosphatase recruitment. <i>Nature</i> , 2020 , 586, 779-784	50.4	14
34	An engineered IL-2 partial agonist promotes CD8 T cell stemness. <i>Nature</i> , 2021 , 597, 544-548	50.4	14
33	Structure and selectivity engineering of the M muscarinic receptor toxin complex. <i>Science</i> , 2020 , 369, 161-167	33.3	13
32	A polymorphic residue that attenuates the antiviral potential of interferon lambda 4 in hominid lineages. <i>PLoS Pathogens</i> , 2018 , 14, e1007307	7.6	13
31	Design of protein binding proteins from target structure alone.. <i>Nature</i> , 2022 ,	50.4	13
30	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	32.3	11
29	Structure of a Janus kinase cytokine receptor complex reveals the basis for dimeric activation.. <i>Science</i> , 2022 , 376, eabn8933	33.3	11
28	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	11.5	10
27	Dual Arms of Adaptive Immunity: Division of Labor and Collaboration between B and T Cells. <i>Cell</i> , 2019 , 179, 3-7	56.2	9
26	Salmonella Infection Enhances Erythropoietin Production by the Kidney and Liver, Which Correlates with Elevated Bacterial Burdens. <i>Infection and Immunity</i> , 2016 , 84, 2833-41	3.7	9
25	RasGRP1 is a potential biomarker to stratify anti-EGFR therapy response in colorectal cancer. <i>JCI Insight</i> , 2019 , 5,	9.9	9

24	A strategy for the selection of monovalent antibodies that span protein dimer interfaces. <i>Journal of Biological Chemistry</i> , 2019 , 294, 13876-13886	5.4	8
23	Surrogate R-spondins for tissue-specific potentiation of Wnt Signaling. <i>PLoS ONE</i> , 2020 , 15, e0226928	3.7	8
22	RTN4/NoGo-receptor binding to BAI adhesion-GPCRs regulates neuronal development. <i>Cell</i> , 2021 , 184, 5869-5885.e25	56.2	7
21	Discovery of surrogate agonists for visceral fat Treg cells that modulate metabolic indices in vivo. <i>ELife</i> , 2020 , 9,	8.9	7
20	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	17.5	6
19	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,	15.9	6
18	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,	11.5	5
17	T cells targeted to TdT kill leukemic lymphoblasts while sparing normal lymphocytes. <i>Nature Biotechnology</i> , 2021 ,	44.5	5
16	Calibration of cell-intrinsic interleukin-2 response thresholds guides design of a regulatory T cell biased agonist. <i>ELife</i> , 2021 , 10,	8.9	4
15	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	32.3	3
14	Facile discovery of surrogate cytokine agonists.. <i>Cell</i> , 2022 ,	56.2	3
13	Interrogating the recognition landscape of a conserved HIV-specific TCR reveals distinct bacterial peptide cross-reactivity. <i>ELife</i> , 2020 , 9,	8.9	2
12	Facile method for screening clinical T cell receptors for off-target peptide-HLA reactivity		2
11	Selective targeting of ligand-dependent and -independent signaling by GPCR conformation-specific anti-US28 intrabodies. <i>Nature Communications</i> , 2021 , 12, 4357	17.4	2
10	Insights into immune structure, recognition, and signaling. <i>Immunological Reviews</i> , 2012 , 250, 5-9	11.3	1
9	Super-enhancer-based identification of a BATF3/IL-2R-module reveals vulnerabilities in anaplastic large cell lymphoma. <i>Nature Communications</i> , 2021 , 12, 5577	17.4	1
8	Interleukin-2 superkines by computational design.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022 , 119, e2117401119	11.5	1
7	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	11.5	1

- 6 Atypical structural snapshots of human cytomegalovirus GPCR interactions with host G proteins.. *Science Advances*, **2022**, 8, eabl5442 14.3 ○
- 5 Mesenchymal-epithelial crosstalk shapes intestinal regionalisation via Wnt and Shh signalling.. *Nature Communications*, **2022**, 13, 715 17.4 ○
- 4 Tuning T cell receptor sensitivity through catch bond engineering.. *Science*, **2022**, 376, eabl5282 33.3 ○
- 3 Self-determination in the T cell repertoire. *Immunity*, **2015**, 42, 8-10 32.3
- 2 A Conversation with Dr. K. Christopher Garcia. *Journal of Interferon and Cytokine Research*, **2021**, 41, 355-359 35.9
- 1 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 2.2