Tracy M Handel

List of Publications by Year
in descending order

94 papers	8,833 citations	57719 44 h-index	56687 83 g-index
102 all docs	102 docs citations	102 times ranked	9782 citing authors

#	Article	IF	Citations
1	Structures of the CXCR4 Chemokine GPCR with Small-Molecule and Cyclic Peptide Antagonists. Science, 2010, 330, 1066-1071.	6.0	1,610
2	Chemokine:Receptor Structure, Interactions, and Antagonism. Annual Review of Immunology, 2007, 25, 787-820.	9.5	730
3	Glycosaminoglycan binding and oligomerization are essential for the in vivo activity of certain chemokines. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 1885-1890.	3.3	713
4	Crystal structure of the chemokine receptor CXCR4 in complex with a viral chemokine. Science, 2015, 347, 1117-1122.	6.0	325
5	Chemerin Activation by Serine Proteases of the Coagulation, Fibrinolytic, and Inflammatory Cascades. Journal of Biological Chemistry, 2005, 280, 34661-34666.	1.6	308
6	De novo design of the hydrophobic cores of proteins. Protein Science, 1995, 4, 2006-2018.	3.1	275
7	Chemokines and cancer: migration, intracellular signalling and intercellular communication in the microenvironment. Biochemical Journal, 2008, 409, 635-649.	1.7	238
8	Structure of CC chemokine receptor 2 with orthosteric and allosteric antagonists. Nature, 2016, 540, 458-461.	13.7	220
9	Monomeric Monocyte Chemoattractant Protein-1 (MCP-1) Binds and Activates the MCP-1 Receptor CCR2B. Journal of Biological Chemistry, 1998, 273, 33157-33165.	1.6	183
10	Identification of the Glycosaminoglycan Binding Site of the CC Chemokine, MCP-1. Journal of Biological Chemistry, 2004, 279, 22294-22305.	1.6	181
11	De novo design of the hydrophobic core of ubiquitin. Protein Science, 1997, 6, 1167-1178.	3.1	164
12	Heteronuclear (1H,13C,15N) NMR Assignments and Solution Structure of the Monocyte Chemoattractant Protein-1 (MCP-1) Dimerâ€,â€¡. Biochemistry, 1996, 35, 6569-6584.	1.2	162
13	Chemokine and chemokine receptor structure and interactions: implications for therapeutic strategies. Immunology and Cell Biology, 2015, 93, 372-383.	1.0	162
14	Structure of CC Chemokine Receptor 5 with a Potent Chemokine Antagonist Reveals Mechanisms of Chemokine Recognition and Molecular Mimicry by HIV. Immunity, 2017, 46, 1005-1017.e5.	6.6	148
15	TSG-6 Inhibits Neutrophil Migration via Direct Interaction with the Chemokine CXCL8. Journal of Immunology, 2014, 192, 2177-2185.	0.4	147
16	Identification of Residues in the Monocyte Chemotactic Protein-1 That Contact the MCP-1 Receptor, CCR2â€. Biochemistry, 1999, 38, 13013-13025.	1.2	141
17	Solution Structure and Dynamics of the CX3C Chemokine Domain of Fractalkine and Its Interaction with an N-Terminal Fragment of CX3CR1,. Biochemistry, 1999, 38, 1402-1414.	1.2	138
18	From coiled coils to small globular proteins: Design of a nativeâ€like threeâ€helix bundle. Protein Science, 1998, 7, 1404-1414.	3.1	132

#	Article	IF	Citations
19	Heparan Sulfate Microarray Reveals That Heparan Sulfateâ€"Protein Binding Exhibits Different Ligand Requirements. Journal of the American Chemical Society, 2017, 139, 9534-9543.	6.6	106
20	Identification of Surface Residues of the Monocyte Chemotactic Protein 1 That Affect Signaling through the Receptor CCR2â€. Biochemistry, 1999, 38, 16167-16177.	1.2	103
21	Glycosaminoglycan Interactions with Chemokines Add Complexity to a Complex System. Pharmaceuticals, 2017, 10, 70.	1.7	100
22	Heterodimerization of CCR2 Chemokines and Regulation by Glycosaminoglycan Binding. Journal of Biological Chemistry, 2006, 281, 25438-25446.	1.6	99
23	Signal transmission through the CXC chemokine receptor 4 (CXCR4) transmembrane helices. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9928-9933.	3.3	96
24	Inhibition of Monocyte Chemoattractant Protein-1 Ameliorates Rat Adjuvant-Induced Arthritis. Journal of Immunology, 2008, 180, 3447-3456.	0.4	92
25	The Anti-inflammatory Protein TSG-6 Regulates Chemokine Function by Inhibiting Chemokine/Glycosaminoglycan Interactions. Journal of Biological Chemistry, 2016, 291, 12627-12640.	1.6	88
26	Structural basis of ligand interaction with atypical chemokine receptor 3. Nature Communications, 2017, 8, 14135.	5.8	83
27	What Do Structures Tell Us About Chemokine Receptor Function and Antagonism?. Annual Review of Biophysics, 2017, 46, 175-198.	4.5	81
28	Inactivation of heparan sulfate 2-O-sulfotransferase accentuates neutrophil infiltration during acute inflammation in mice. Blood, 2012, 120, 1742-1751.	0.6	80
29	Leukocyte Adhesion: Reconceptualizing Chemokine Presentation by Glycosaminoglycans. Trends in Immunology, 2019, 40, 472-481.	2.9	80
30	Oligomeric Structure of the Chemokine CCL5/RANTES from NMR, MS, and SAXS Data. Structure, 2011, 19, 1138-1148.	1.6	79
31	Chemokine-Glycosaminoglycan Binding. Journal of Biological Chemistry, 2005, 280, 32200-32208.	1.6	77
32	The dependence of chemokineâ€"glycosaminoglycan interactions on chemokine oligomerization. Glycobiology, 2016, 26, cwv100.	1.3	76
33	Stoichiometry and geometry of the CXC chemokine receptor 4 complex with CXC ligand 12: Molecular modeling and experimental validation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5363-72.	3.3	70
34	Elucidating the CXCL12/CXCR4 Signaling Network in Chronic Lymphocytic Leukemia through Phosphoproteomics Analysis. PLoS ONE, 2010, 5, e11716.	1.1	69
35	Structure of M11L: A myxoma virus structural homolog of the apoptosis inhibitor, Bcl-2. Protein Science, 2007, 16, 695-703.	3.1	68
36	An engineered monomer of CCL2 has anti-inflammatory properties emphasizing the importance of oligomerization for chemokine activity in vivo. Journal of Leukocyte Biology, 2008, 84, 1101-1108.	1.5	64

#	Article	IF	Citations
37	The Chemokine Receptor CCR1 Is Constitutively Active, Which Leads to G Protein-independent, Î²-Arrestin-mediated Internalization. Journal of Biological Chemistry, 2013, 288, 32194-32210.	1.6	62
38	The Crystal Structure of the Chemokine Domain of Fractalkine Shows a Novel Quaternary Arrangement. Journal of Biological Chemistry, 2000, 275, 23187-23193.	1.6	60
39	Cytokines and growth factors cross-link heparan sulfate. Open Biology, 2015, 5, 150046.	1.5	55
40	Characterization of the Chemokine CXCL11-Heparin Interaction Suggests Two Different Affinities for Glycosaminoglycans. Journal of Biological Chemistry, 2010, 285, 17713-17724.	1.6	54
41	Sulfopeptide Probes of the CXCR4/CXCL12 Interface Reveal Oligomer-Specific Contacts and Chemokine Allostery. ACS Chemical Biology, 2013, 8, 1955-1963.	1.6	51
42	Chemokine Receptor Oligomerization and Allostery. Progress in Molecular Biology and Translational Science, 2013, 115, 375-420.	0.9	51
43	Structural and Computational Characterization of the SHV-1 Î²-Lactamase-Î²-Lactamase Inhibitor Protein Interface. Journal of Biological Chemistry, 2006, 281, 26745-26753.	1.6	46
44	NMR Analysis of the Structure, Dynamics, and Unique Oligomerization Properties of the Chemokine CCL27. Journal of Biological Chemistry, 2010, 285, 14424-14437.	1.6	46
45	Intracellular Receptor Modulation: Novel Approach to Target GPCRs. Trends in Pharmacological Sciences, 2018, 39, 547-559.	4.0	43
46	Chapter 4 Interactions of Chemokines with Glycosaminoglycans. Methods in Enzymology, 2009, 461, 71-102.	0.4	41
47	Computational Redesign of the SHV-1 Î²-Lactamase/Î²-Lactamase Inhibitor Protein Interface. Journal of Molecular Biology, 2008, 382, 1265-1275.	2.0	40
48	Multiple Glycosaminoglycan-binding Epitopes of Monocyte Chemoattractant Protein-3/CCL7 Enable It to Function as a Non-oligomerizing Chemokine. Journal of Biological Chemistry, 2014, 289, 14896-14912.	1.6	38
49	Chemokine Oligomerization in Cell Signaling and Migration. Progress in Molecular Biology and Translational Science, 2013, 117, 531-578.	0.9	37
50	Interactions of the Chemokine CCL5/RANTES with Medium-Sized Chondroitin Sulfate Ligands. Structure, 2015, 23, 1066-1077.	1.6	37
51	Dual Targeting of the Chemokine Receptors CXCR4 and ACKR3 with Novel Engineered Chemokines. Journal of Biological Chemistry, 2015, 290, 22385-22397.	1.6	37
52	Differential structural remodelling of heparan sulfate by chemokines: the role of chemokine oligomerization. Open Biology, 2017, 7, 160286.	1.5	37
53	A Tyrosine Switch on NEDD4-2 E3 Ligase Transmits GPCR Inflammatory Signaling. Cell Reports, 2018, 24, 3312-3323.e5.	2.9	36
54	CXCR4-targeting nanobodies differentially inhibit CXCR4 function and HIV entry. Biochemical Pharmacology, 2018, 158, 402-412.	2.0	34

#	Article	IF	Citations
55	Kinetics of CXCL12 binding to atypical chemokine receptor 3 reveal a role for the receptor N terminus in chemokine binding. Science Signaling, 2019, 12, .	1.6	33
56	Chemokine Cooperativity Is Caused by Competitive Glycosaminoglycan Binding. Journal of Immunology, 2014, 192, 3908-3914.	0.4	31
57	Structures of atypical chemokine receptor 3 reveal the basis for its promiscuity and signaling bias. Science Advances, 2022, 8, .	4.7	31
58	Structural and Biochemical Characterization of the Interaction between KPC-2 Î²-Lactamase and Î²-Lactamase Inhibitor Protein,. Biochemistry, 2009, 48, 9185-9193.	1.2	29
59	Expression, purification and in vitro functional reconstitution of the chemokine receptor CCR1. Protein Expression and Purification, 2009, 66, 73-81.	0.6	28
60	A critical role for lymphatic endothelial heparan sulfate in lymph node metastasis. Molecular Cancer, 2010, 9, 316.	7.9	27
61	Emerging concepts and approaches for chemokine-receptor drug discovery. Expert Opinion on Drug Discovery, 2010, 5, 1109-1122.	2.5	25
62	Functional anatomy of the full-length CXCR4-CXCL12 complex systematically dissected by quantitative model-guided mutagenesis. Science Signaling, 2020, 13, .	1.6	24
63	Crosslinking-guided geometry of a complete CXC receptor-chemokine complex and the basis of chemokine subfamily selectivity. PLoS Biology, 2020, 18, e3000656.	2.6	24
64	Identification of the Pharmacophore of the CC Chemokine-binding Proteins Evasin-1 and -4 Using Phage Display. Journal of Biological Chemistry, 2014, 289, 31846-31855.	1.6	22
65	Anticancer opportunities at every stage of chemokine function. Trends in Pharmacological Sciences, 2021, 42, 912-928.	4.0	22
66	A rapid and efficient way to obtain modified chemokines for functional and biophysical studies. Cytokine, 2011, 55, 168-173.	1.4	21
67	A General Method for Site Specific Fluorescent Labeling of Recombinant Chemokines. PLoS ONE, 2014, 9, e81454.	1.1	21
68	CCR2-Mediated Uptake of Constitutively Produced CCL2: A Mechanism for Regulating Chemokine Levels in the Blood. Journal of Immunology, 2019, 203, 3157-3165.	0.4	19
69	Perspectives on the Biological Role of Chemokine:Glycosaminoglycan Interactions. Journal of Histochemistry and Cytochemistry, 2021, 69, 87-91.	1.3	18
70	Production of Chemokine/Chemokine Receptor Complexes for Structural Biophysical Studies. Methods in Enzymology, 2016, 570, 233-260.	0.4	17
71	Specificity and cooperativity at Î²â€lactamase position 104 in TEMâ€1/BLIP and SHVâ€1/BLIP interactions. Proteins: Structure, Function and Bioinformatics, 2011, 79, 1267-1276.	1.5	15
72	Disulfide Trapping for Modeling and Structure Determination of Receptor. Methods in Enzymology, 2016, 570, 389-420.	0.4	15

#	Article	IF	Citations
73	Examination of Glycosaminoglycan Binding Sites on the XCL1 Dimer. Biochemistry, 2016, 55, 1214-1225.	1.2	15
74	Chemokine receptor CXCR4 oligomerization is disrupted selectively by the antagonist ligand IT1t. Journal of Biological Chemistry, 2021, 296, 100139.	1.6	15
75	A Novel Approach to Quantify G-Protein-Coupled Receptor Dimerization Equilibrium Using Bioluminescence Resonance Energy Transfer. Methods in Molecular Biology, 2013, 1013, 93-127.	0.4	15
76	Chapter 16 Phosphoproteomic Analysis of Chemokine Signaling Networks. Methods in Enzymology, 2009, 460, 331-346.	0.4	13
77	Design and Characterization of an Intracellular Covalent Ligand for CC Chemokine Receptor 2. Journal of Medicinal Chemistry, 2021, 64, 2608-2621.	2.9	13
78	Experiment-Guided Molecular Modeling of Proteinâ€"Protein Complexes Involving GPCRs. Methods in Molecular Biology, 2015, 1335, 295-311.	0.4	11
79	Solution NMR spectroscopy of GPCRs: Residue-specific labeling strategies with a focus on 13C-methyl methionine labeling of the atypical chemokine receptor ACKR3. Methods in Cell Biology, 2019, 149, 259-288.	0.5	9
80	Differential activity and selectivity of N-terminal modified CXCL12 chemokines at the CXCR4 and ACKR3 receptors. Journal of Leukocyte Biology, 2020, 107, 1123-1135.	1.5	9
81	Duffy antigen inhibitors: useful therapeutics for malaria?. Trends in Parasitology, 2010, 26, 329-333.	1.5	6
82	Proteinâ€"protein binding affinities by pulse proteolysis: Application to TEMâ€1/BLIP protein complexes. Protein Science, 2010, 19, 1996-2000.	3.1	6
83	Editorial: Chemokines â€" beyond chemotaxis. Cytokine, 2018, 109, 1.	1.4	1
84	Examining Roles of Glycans in Chemokine-Mediated Dendriticâ€"Endothelial Cell Interactions. Methods in Enzymology, 2016, 570, 335-355.	0.4	0
85	Cryoâ€EM Structure of Atypical Chemokine Receptor 3 (ACKR3) in Complex with its Endogenous Ligand CXCL12. FASEB Journal, 2021, 35, .	0.2	0
86	Regulation of Chemerin Bioactivity by Plasma Carboxypeptidase N, Carboxypeptidase B (TAFIa) and Platelets.. Blood, 2007, 110, 408-408.	0.6	0
87	Alteration of heparan sulfate 2â€Oâ€sulfation in endothelial cells enhances neutrophil infiltration in mice. FASEB Journal, 2012, 26, 609.1.	0.2	0
88	Endosomal GPCR signaling: Tyrosine Phosphorylation of a Peptide Linker in NEDD4â€2 Increases Ligase Activity to Promote p38 Proinflammatory Signaling. FASEB Journal, 2018, 32, 687.10.	0.2	0
89	Title is missing!. , 2020, 18, e3000656.		0
90	Title is missing!. , 2020, 18, e3000656.		0

#	Article	IF	Citations
91	Title is missing!. , 2020, 18, e3000656.		0
92	Title is missing!. , 2020, 18, e3000656.		0
93	Title is missing!. , 2020, 18, e3000656.		0
94	Title is missing!. , 2020, 18, e3000656.		0