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 atypical chemokine receptor 3 reveal the basis for its promiscuity and signaling bias. Science Advances, 2022, 8, .	4.7	31
2	Chemokine receptor CXCR4 oligomerization is disrupted selectively by the antagonist ligand IT1t. Journal of Biological Chemistry, 2021, 296, 100139.	1.6	15
3	Perspectives on the Biological Role of Chemokine:Glycosaminoglycan Interactions. Journal of Histochemistry and Cytochemistry, 2021, 69, 87-91.	1.3	18
4	Design and Characterization of an Intracellular Covalent Ligand for CC Chemokine Receptor 2. Journal of Medicinal Chemistry, 2021, 64, 2608-2621.	2.9	13
5	Cryoâ€EM Structure of Atypical Chemokine Receptor 3 (ACKR3) in Complex with its Endogenous Ligand CXCL12. FASEB Journal, 2021, 35, .	0.2	0
6	Anticancer opportunities at every stage of chemokine function. Trends in Pharmacological Sciences, 2021, 42, 912-928.	4.0	22
7	Functional anatomy of the full-length CXCR4-CXCL12 complex systematically dissected by quantitative model-guided mutagenesis. Science Signaling, 2020, 13, .	1.6	24
8	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
9	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
10	Title is missing!. , 2020, 18, e3000656.		0
11	Title is missing!. , 2020, 18, e3000656.		0
12	Title is missing!. , 2020, 18, e3000656.		0
13	Title is missing!. , 2020, 18, e3000656.		0
14	Title is missing!. , 2020, 18, e3000656.		0
15	Title is missing!. , 2020, 18, e3000656.		0
16	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
17	Leukocyte Adhesion: Reconceptualizing Chemokine Presentation by Glycosaminoglycans. Trends in Immunology, 2019, 40, 472-481.	2.9	80
18	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

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19	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
20	Intracellular Receptor Modulation: Novel Approach to Target GPCRs. Trends in Pharmacological Sciences, 2018, 39, 547-559.	4.0	43
21	CXCR4-targeting nanobodies differentially inhibit CXCR4 function and HIV entry. Biochemical Pharmacology, 2018, 158, 402-412.	2.0	34
22	A Tyrosine Switch on NEDD4-2 E3 Ligase Transmits GPCR Inflammatory Signaling. Cell Reports, 2018, 24, 3312-3323.e5.	2.9	36
23	Editorial: Chemokines â€“ beyond chemotaxis. Cytokine, 2018, 109, 1.	1.4	1
24	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
25	Structural basis of ligand interaction with atypical chemokine receptor 3. Nature Communications, 2017, 8, 14135.	5.8	83
26	Differential structural remodelling of heparan sulfate by chemokines: the role of chemokine oligomerization. Open Biology, 2017, 7, 160286.	1.5	37
27	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
28	What Do Structures Tell Us About Chemokine Receptor Function and Antagonism?. Annual Review of Biophysics, 2017, 46, 175-198.	4.5	81
29	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
30	Glycosaminoglycan Interactions with Chemokines Add Complexity to a Complex System. Pharmaceuticals, 2017, 10, 70.	1.7	100
31	The dependence of chemokineâ€“glycosaminoglycan interactions on chemokine oligomerization. Glycobiology, 2016, 26, cwv100.	1.3	76
32	Examining Roles of Glycans in Chemokine-Mediated Dendriticâ€“Endothelial Cell Interactions. Methods in Enzymology, 2016, 570, 335-355.	0.4	0
33	Production of Chemokine/Chemokine Receptor Complexes for Structural Biophysical Studies. Methods in Enzymology, 2016, 570, 233-260.	0.4	17
34	Structure of CC chemokine receptor 2 with orthosteric and allosteric antagonists. Nature, 2016, 540, 458-461.	13.7	220
35	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
36	Disulfide Trapping for Modeling and Structure Determination of Receptor. Methods in Enzymology, 2016, 570, 389-420.	0.4	15

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37	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
38	Examination of Glycosaminoglycan Binding Sites on the XCL1 Dimer. Biochemistry, 2016, 55, 1214-1225.	1.2	15
39	Cytokines and growth factors cross-link heparan sulfate. Open Biology, 2015, 5, 150046.	1.5	55
40	Crystal structure of the chemokine receptor CXCR4 in complex with a viral chemokine. Science, 2015, 347, 1117-1122.	6.0	325
41	Chemokine and chemokine receptor structure and interactions: implications for therapeutic strategies. Immunology and Cell Biology, 2015, 93, 372-383.	1.0	162
42	Interactions of the Chemokine CCL5/RANTES with Medium-Sized Chondroitin Sulfate Ligands. Structure, 2015, 23, 1066-1077.	1.6	37
43	Dual Targeting of the Chemokine Receptors CXCR4 and ACKR3 with Novel Engineered Chemokines. Journal of Biological Chemistry, 2015, 290, 22385-22397.	1.6	37
44	Experiment-Guided Molecular Modeling of Proteinâ€“Protein Complexes Involving GPCRs. Methods in Molecular Biology, 2015, 1335, 295-311.	0.4	11
45	A General Method for Site Specific Fluorescent Labeling of Recombinant Chemokines. PLoS ONE, 2014, 9, e81454.	1.1	21
46	Chemokine Cooperativity Is Caused by Competitive Glycosaminoglycan Binding. Journal of Immunology, 2014, 192, 3908-3914.	0.4	31
47	TSG-6 Inhibits Neutrophil Migration via Direct Interaction with the Chemokine CXCL8. Journal of Immunology, 2014, 192, 2177-2185.	0.4	147
48	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
49	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
50	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
51	Chemokine Oligomerization in Cell Signaling and Migration. Progress in Molecular Biology and Translational Science, 2013, 117, 531-578.	0.9	37
52	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
53	Sulfopeptide Probes of the CXCR4/CXCL12 Interface Reveal Oligomer-Specific Contacts and Chemokine Allostery. ACS Chemical Biology, 2013, 8, 1955-1963.	1.6	51
54	Chemokine Receptor Oligomerization and Allostery. Progress in Molecular Biology and Translational Science, 2013, 115, 375-420.	0.9	51

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55	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
56	Inactivation of heparan sulfate 2-O-sulfotransferase accentuates neutrophil infiltration during acute inflammation in mice. Blood, 2012, 120, 1742-1751.	0.6	80
57	Alteration of heparan sulfate 2â€Oâ€sulfation in endothelial cells enhances neutrophil infiltration in mice. FASEB Journal, 2012, 26, 609.1.	0.2	0
58	A rapid and efficient way to obtain modified chemokines for functional and biophysical studies. Cytokine, 2011, 55, 168-173.	1.4	21
59	Oligomeric Structure of the Chemokine CCL5/RANTES from NMR, MS, and SAXS Data. Structure, 2011, 19, 1138-1148.	1.6	79
60	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
61	Duffy antigen inhibitors: useful therapeutics for malaria?. Trends in Parasitology, 2010, 26, 329-333.	1.5	6
62	Proteinâ€"protein binding affinities by pulse proteolysis: Application to TEMâ€1/BLIP protein complexes. Protein Science, 2010, 19, 1996-2000.	3.1	6
63	Elucidating the CXCL12/CXCR4 Signaling Network in Chronic Lymphocytic Leukemia through Phosphoproteomics Analysis. PLoS ONE, 2010, 5, e11716.	1.1	69
64	Emerging concepts and approaches for chemokine-receptor drug discovery. Expert Opinion on Drug Discovery, 2010, 5, 1109-1122.	2.5	25
65	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
66	Characterization of the Chemokine CXCL11-Heparin Interaction Suggests Two Different Affinities for Glycosaminoglycans. Journal of Biological Chemistry, 2010, 285, 17713-17724.	1.6	54
67	A critical role for lymphatic endothelial heparan sulfate in lymph node metastasis. Molecular Cancer, 2010, 9, 316.	7.9	27
68	Structures of the CXCR4 Chemokine GPCR with Small-Molecule and Cyclic Peptide Antagonists. Science, 2010, 330, 1066-1071.	6.0	1,610
69	Chapter 16 Phosphoproteomic Analysis of Chemokine Signaling Networks. Methods in Enzymology, 2009, 460, 331-346.	0.4	13
70	Chapter 4 Interactions of Chemokines with Glycosaminoglycans. Methods in Enzymology, 2009, 461, 71-102.	0.4	41
71	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
72	Expression, purification and in vitro functional reconstitution of the chemokine receptor CCR1. Protein Expression and Purification, 2009, 66, 73-81.	0.6	28

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73	Computational Redesign of the SHV-1 Î²-Lactamase/Î²-Lactamase Inhibitor Protein Interface. Journal of Molecular Biology, 2008, 382, 1265-1275.	2.0	40
74	Chemokines and cancer: migration, intracellular signalling and intercellular communication in the microenvironment. Biochemical Journal, 2008, 409, 635-649.	1.7	238
75	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
76	Inhibition of Monocyte Chemoattractant Protein-1 Ameliorates Rat Adjuvant-Induced Arthritis. Journal of Immunology, 2008, 180, 3447-3456.	0.4	92
77	Chemokine:Receptor Structure, Interactions, and Antagonism. Annual Review of Immunology, 2007, 25, 787-820.	9.5	730
78	Structure of M11L: A myxoma virus structural homolog of the apoptosis inhibitor, Bcl-2. Protein Science, 2007, 16, 695-703.	3.1	68
79	Regulation of Chemerin Bioactivity by Plasma Carboxypeptidase N, Carboxypeptidase B (TAFIa) and Platelets.. Blood, 2007, 110, 408-408.	0.6	0
80	Heterodimerization of CCR2 Chemokines and Regulation by Glycosaminoglycan Binding. Journal of Biological Chemistry, 2006, 281, 25438-25446.	1.6	99
81	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
82	Chemokine-Glycosaminoglycan Binding. Journal of Biological Chemistry, 2005, 280, 32200-32208.	1.6	77
83	Chemerin Activation by Serine Proteases of the Coagulation, Fibrinolytic, and Inflammatory Cascades. Journal of Biological Chemistry, 2005, 280, 34661-34666.	1.6	308
84	Identification of the Glycosaminoglycan Binding Site of the CC Chemokine, MCP-1. Journal of Biological Chemistry, 2004, 279, 22294-22305.	1.6	181
85	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
86	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
87	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
88	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
89	Identification of Residues in the Monocyte Chemotactic Protein-1 That Contact the MCP-1 Receptor, CCR2â€. Biochemistry, 1999, 38, 13013-13025.	1.2	141
90	From coiled coils to small globular proteins: Design of a nativeâ€like threeâ€helix bundle. Protein Science, 1998, 7, 1404-1414.	3.1	132

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91	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
92	De novo design of the hydrophobic core of ubiquitin. Protein Science, 1997, 6, 1167-1178.	3.1	164
93	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
94	De novo design of the hydrophobic cores of proteins. Protein Science, 1995, 4, 2006-2018.	3.1	275