Franck Fieschi

List of Publications by Year
in descending order

103 papers	5,985 citations	76196 40 h-index	76769 74 g-index
107 all docs	107 docs citations	107 times ranked	7054 citing authors

#	Article	IF	Citations
1	Multivalent glycoconjugates as anti-pathogenic agents. Chemical Society Reviews, 2013, 42, 4709-4727.	18.7	464
2	Dendriticâ€cellâ€specific ICAM3â€grabbing nonâ€integrin is essential for the productive infection of human dendritic cells by mosquitoâ€cellâ€derived dengue viruses. EMBO Reports, 2003, 4, 723-728.	2.0	436
3	Human Cytomegalovirus Binding to DC-SIGN Is Required for Dendritic Cell Infection and Target Cell trans-Infection. Immunity, 2002, 17, 653-664.	6.6	329
4	Inactivation of ribonucleotide reductase by nitric oxide. Biochemical and Biophysical Research Communications, 1991, 179, 442-448.	1.0	322
5	DC-SIGN and L-SIGN Are High Affinity Binding Receptors for Hepatitis C Virus Glycoprotein E2. Journal of Biological Chemistry, 2003, 278, 20358-20366.	1.6	319
6	NADPH oxidase activator p67phox behaves in solution as a multidomain protein with semi-flexible linkers. Journal of Structural Biology, 2010, 169, 45-53.	1.3	278
7	NADPH Oxidases (NOX): An Overview from Discovery, Molecular Mechanisms to Physiology and Pathology. Antioxidants, 2021, 10, 890.	2.2	239
8	Chromophore twisting in the excited state of a photoswitchable fluorescent protein captured by time-resolved serial femtosecond crystallography. Nature Chemistry, 2018, 10, 31-37.	6.6	152
9	DC/L-SIGN recognition of spike glycoprotein promotes SARS-CoV-2 trans-infection and can be inhibited by a glycomimetic antagonist. PLoS Pathogens, 2021, 17, e1009576.	2.1	133
10	Crystal Structure of the Rac1âRhoGDI Complex Involved in NADPH Oxidase Activationâ€,â€¡. Biochemistry, 2001, 40, 10007-10013.	1.2	127
11	Inhibition of DC-SIGN-Mediated HIV Infection by a Linear Trimannoside Mimic in a Tetravalent Presentation. ACS Chemical Biology, 2010, 5, 301-312.	1.6	115
12	The Mechanism and Substrate Specificity of the NADPH:Flavin Oxidoreductase from Escherichia coli. Journal of Biological Chemistry, 1995, 270, 30392-30400.	1.6	109
13	DC-SIGN Neck Domain Is a pH-sensor Controlling Oligomerization. Journal of Biological Chemistry, 2009, 284, 21229-21240.	1.6	105
14	NADPH oxidase (NOX) isoforms are inhibited by celastrol with a dual mode of action. British Journal of Pharmacology, 2011, 164, 507-520.	2.7	105
15	A multivalent inhibitor of the DC-SIGN dependent uptake of HIV-1 and Dengue virus. Biomaterials, 2014, 35, 4175-4184.	5.7	105
16	Mannose hyperbranched dendritic polymers interact with clustered organization of DC-SIGN and inhibit gp120 binding. FEBS Letters, 2006, 580, 2402-2408.	1.3	103
17	Pseudosaccharide Functionalized Dendrimers as Potent Inhibitors of DC-SIGN Dependent Ebola Pseudotyped Viral Infection. Bioconjugate Chemistry, 2011, 22, 1354-1365.	1.8	82
18	The Active N-terminal Region of p67. Journal of Biological Chemistry, 2001, 276, 21627-21631.	1.6	79

#	Article	IF	Citations
19	Structure of a Glycomimetic Ligand in the Carbohydrate Recognition Domain of C-type Lectin DC-SIGN. Structural Requirements for Selectivity and Ligand Design. Journal of the American Chemical Society, 2013, 135, 2518-2529.	6.6	75
20	Designing nanomolar antagonists of DC-SIGN-mediated HIV infection: ligand presentation using molecular rods. Chemical Communications, 2015, 51, 3816-3819.	2.2	74
21	1,2-Mannobioside Mimic: Synthesis, DC-SIGN Interaction by NMR and Docking, and Antiviral Activity. ChemMedChem, 2007, 2, 1030-1036.	1.6	73
22	Microbe-focused glycan array screening platform. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1958-1967.	3.3	71
23	Effects of p47 C Terminus Phosphorylations on Binding Interactions with p40 and p67. Journal of Biological Chemistry, 2005, 280, 13752-13761.	1.6	65
24	Semen Clusterin Is a Novel DC-SIGN Ligand. Journal of Immunology, 2011, 187, 5299-5309.	0.4	65
25	Structural Studies of Langerin and Birbeck Granule: A Macromolecular Organization Model. Biochemistry, 2009, 48, 2684-2698.	1.2	64
26	Saturation Transfer Difference (STD) NMR Spectroscopy Characterization of Dual Binding Mode of a Mannose Disaccharide to DCâ€SIGN. ChemBioChem, 2008, 9, 2225-2227.	1.3	63
27	Langerinâ€"Heparin Interaction: Two Binding Sites for Small and Large Ligands As Revealed by a Combination of NMR Spectroscopy and Cross-Linking Mapping Experiments. Journal of the American Chemical Society, 2015, 137, 4100-4110.	6.6	61
28	Second generation of fucose-based DC-SIGN ligands : affinity improvement and specificity versus Langerin. Organic and Biomolecular Chemistry, 2011, 9, 5778.	1.5	60
29	The Active Form of the R2F Protein of Class Ib Ribonucleotide Reductase from Corynebacterium ammoniagenesIs a Diferric Protein. Journal of Biological Chemistry, 2000, 275, 25365-25371.	1.6	58
30	Synthesis of Novel DCâ€SIGN Ligands with an Î±â€Fucosylamide Anchor. ChemBioChem, 2008, 9, 1921-1930.	1.3	58
31	A glycomimetic compound inhibits DC-SIGN-mediated HIV infection in cellular and cervical explant models. Aids, 2012, 26, 127-137.	1.0	58
32	Rational-Differential Design of Highly Specific Glycomimetic Ligands: Targeting DC-SIGN and Excluding Langerin Recognition. ACS Chemical Biology, 2018, 13, 600-608.	1.6	56
33	Photoswitching mechanism of a fluorescent protein revealed by time-resolved crystallography and transient absorption spectroscopy. Nature Communications, 2020, 11, 741.	5.8	56
34	The Manganese-containing Ribonucleotide Reductase ofCorynebacterium ammoniagenes Is a Class Ib Enzyme. Journal of Biological Chemistry, 1998, 273, 4329-4337.	1.6	54
35	Selective Targeting of Dendritic Cellâ€Specific Intercellular Adhesion Moleculeâ€3â€Grabbing Nonintegrin (DCâ€SIGN) with Mannoseâ€Based Glycomimetics: Synthesis and Interaction Studies of Bis(benzylamide) Derivatives of a Pseudomannobioside. Chemistry - A European Journal, 2013, 19, 4786-4797.	1.7	53
36	Leukotriene BLT2 Receptor Monomers Activate the Gi2 GTP-binding Protein More Efficiently than Dimers. Journal of Biological Chemistry, 2010, 285, 6337-6347.	1.6	51

#	Article	IF	Citations
37	Unique DC-SIGN Clustering Activity of a Small Glycomimetic: A Lesson for Ligand Design. ACS Chemical Biology, 2014, 9, 1377-1385.	1.6	47
38	The NOX Family of Proteins Is Also Present in Bacteria. MBio, 2017, 8, .	1.8	45
39	Glycosaminoglycans Are Interactants of Langerin: Comparison with gp120 Highlights an Unexpected Calcium-Independent Binding Mode. PLoS ONE, 2012, 7, e50722.	1.1	42
40	p47 Molecular Activation for Assembly of the Neutrophil NADPH Oxidase Complex. Journal of Biological Chemistry, 2010, 285, 28980-28990.	1.6	41
41	Regulation of NADPH Oxidase Activity in Phagocytes. Journal of Biological Chemistry, 2010, 285, 33197-33208.	1.6	40
42	The NAD(P)H:Flavin Oxidoreductase from Escherichia coli. Journal of Biological Chemistry, 1999, 274, 18252-18260.	1.6	38
43	Chemoenzymatic Synthesis of N-glycan Positional Isomers and Evidence for Branch Selective Binding by Monoclonal Antibodies and Human C-type Lectin Receptors. ACS Chemical Biology, 2018, 13, 2269-2279.	1.6	38
44	Docking, synthesis, and NMR studies of mannosyl trisaccharide ligands for DC-SIGN lectin. Organic and Biomolecular Chemistry, 2008, 6, 2743.	1.5	37
45	Systematic Dual Targeting of Dendritic Cell C-Type Lectin Receptor DC-SIGN and TLR7 Using a Trifunctional Mannosylated Antigen. Frontiers in Chemistry, 2019, 7, 650.	1.8	37
46	A Two-component NADPH Oxidase (NOX)-like System in Bacteria Is Involved in the Electron Transfer Chain to the Methionine Sulfoxide Reductase MsrP. Journal of Biological Chemistry, 2017, 292, 2485-2494.	1.6	35
47	Is the NAD(P)H:Flavin Oxidoreductase from a Member of the Ferredoxin-NADP+ Reductase Family?. Journal of Biological Chemistry, 1996, 271, 16656-16661.	1.6	32
48	Small-Angle X-ray Scattering Reveals an Extended Organization for the Autoinhibitory Resting State of the p47phoxModular Protein. Biochemistry, 2006, 45, 7185-7193.	1.2	32
49	Investigating alternative acidic proteases for H/D exchange coupled to mass spectrometry: Plasmepsin 2 but not plasmepsin 4 is active under quenching conditions. Journal of the American Society for Mass Spectrometry, 2010, 21, 76-79.	1.2	29
50	Monovalent mannose-based DC-SIGN antagonists: Targeting the hydrophobic groove of the receptor. European Journal of Medicinal Chemistry, 2014, 75, 308-326.	2.6	29
51	Synthesis of a selective inhibitor of a fucose binding bacterial lectin from Burkholderia ambifaria. Organic and Biomolecular Chemistry, 2013, 11, 4086.	1.5	26
52	Development of C-type lectin-oriented surfaces for high avidity glycoconjugates: towards mimicking multivalent interactions on the cell surface. Organic and Biomolecular Chemistry, 2020, 18, 4763-4772.	1.5	26
53	Small Angle Neutron Scattering and Gel Filtration Analyses of Neutrophil NADPH Oxidase Cytosolic Factors Highlight the Role of the C-Terminal End of p47phox in the Association with p40phox. Biochemistry, 2001, 40, 3127-3133.	1.2	25
54	CopH from Cupriavidus metallidurans CH34. A Novel Periplasmic Copper-Binding Protein. Biochemistry, 2006, 45, 5557-5566.	1.2	25

#	Article	IF	Citations
55	Down-regulation of NOX2 activity in phagocytes mediated by ATM-kinase dependent phosphorylation. Free Radical Biology and Medicine, 2017, 113, 1-15.	1.3	25
56	Enhancing Potency and Selectivity of a DCâ€SIGN Glycomimetic Ligand by Fragmentâ€Based Design: Structural Basis. Chemistry - A European Journal, 2019, 25, 14659-14668.	1.7	25
57	Quantitative live-cell imaging and 3D modeling reveal critical functional features in the cytosolic complex of phagocyte NADPH oxidase. Journal of Biological Chemistry, 2019, 294, 3824-3836.	1.6	25
58	Polyvalent C-glycomimetics based on <scp>l</scp>-fucose or <scp>d</scp>-mannose as potent DC-SIGN antagonists. Organic and Biomolecular Chemistry, 2017, 15, 3995-4004.	1.5	23
59	Assemblies of lauryl maltose neopentyl glycol (LMNG) and LMNG-solubilized membrane proteins. Biochimica Et Biophysica Acta - Biomembranes, 2019, 1861, 939-957.	1.4	23
60	Leu505 of Nox2 is crucial for optimal p67phox-dependent activation of the flavocytochromeb558during phagocytic NADPH oxidase assembly. Journal of Leukocyte Biology, 2007, 81, 238-249.	1.5	22
61	Conformational changes in p47^{phox} upon activation highlighted by mass spectrometry coupled to hydrogen/deuterium exchange and limited proteolysis. FEBS Letters, 2009, 583, 835-840.	1.3	22
62	Mannose Glycoconjugates Functionalized at Positions 1 and 6. Binding Analysis to DC-SIGN Using Biosensors. Bioconjugate Chemistry, 2007, 18, 963-969.	1.8	21
63	Insights into molecular recognition of LewisX mimics by DC-SIGN using NMR and molecular modelling. Organic and Biomolecular Chemistry, 2011, 9, 7705.	1.5	21
64	Human Macrophage Galactoseâ€Type Lectin (MGL) Recognizes the Outer Core of <i>Escherichia coli</i> Lipooligosaccharide. ChemBioChem, 2019, 20, 1778-1782.	1.3	21
65	Lipid bilayer degradation induced by SARS-CoV-2 spike protein as revealed by neutron reflectometry. Scientific Reports, 2021, 11, 14867.	1.6	21
66	Synthesis and Characterization of Linkerâ€Armed Fucoseâ€Based Glycomimetics. European Journal of Organic Chemistry, 2013, 2013, 5303-5314.	1.2	18
67	Detection and quantitative analysis of two independent binding modes of a small ligand responsible for DC-SIGN clustering. Organic and Biomolecular Chemistry, 2016, 14, 335-344.	1.5	18
68	Mannosylcalix[n]arenes as multivalent ligands for DC-SIGN. Carbohydrate Research, 2017, 453-454, 36-43.	1.1	18
69	SARS-CoV-2 spike protein removes lipids from model membranes and interferes with the capacity of high density lipoprotein to exchange lipids. Journal of Colloid and Interface Science, 2021, 602, 732-739.	5.0	18
70	Stereoselective innovative synthesis and biological evaluation of new real carba analogues of minimal epitope ManÎ±(1,2)Man as DC-SIGN inhibitors. RSC Advances, 2016, 6, 89578-89584.	1.7	16
71	Onâ€Chip Screening of a Glycomimetic Library with Câ€Type Lectins Reveals Structural Features Responsible for Preferential Binding of Dectinâ€2 over DCâ€SIGN/R and Langerin. Chemistry - A European Journal, 2018, 24, 14448-14460.	1.7	16
72	Unprecedented Thiacalixarene Fucoclusters as Strong Inhibitors of Ebola cis-Cell Infection and HCMV-gB Glycoprotein/DC-SIGN C-type Lectin Interaction. Bioconjugate Chemistry, 2019, 30, 1114-1126.	1.8	16

#	Article	IF	Citations
73	Protein Mannosylation as a Diagnostic and Prognostic Biomarker of Lupus Nephritis: An Unusual Glycan Neoepitope in Systemic Lupus Erythematosus. Arthritis and Rheumatology, 2021, 73, 2069-2077.	2.9	15
74	Targeting Tn-Antigen-Positive Human Tumors with a Recombinant Human Macrophage Galactose C-Type Lectin. Molecular Pharmaceutics, 2022, 19, 235-245.	2.3	15
75	Clinical, functional and genetic characterization of 16 patients suffering from chronic granulomatous disease variantsÂâ€"Âidentification of 11 novel mutations in CYBB. Clinical and Experimental Immunology, 2021, 203, 247-266.	1.1	14
76	Identification of NOX2 regions for normal biosynthesis of cytochrome <i>b</i>558 in phagocytes highlighting essential residues for p22<i>phox</i> binding. Biochemical Journal, 2014, 464, 425-437.	1.7	13
77	Alteration of the Langerin Oligomerization State Affects Birbeck Granule Formation. Biophysical Journal, 2015, 108, 666-677.	0.2	13
78	Targeting of the C-Type Lectin Receptor Langerin Using Bifunctional Mannosylated Antigens. Frontiers in Cell and Developmental Biology, 2020, 8, 556.	1.8	13
79	TETRALEC, Artificial Tetrameric Lectins: A Tool to Screen Ligand and Pathogen Interactions. International Journal of Molecular Sciences, 2020, 21, 5290.	1.8	13
80	Nonhydrolyzable C-disaccharides, a new class of DC-SIGN ligands. Carbohydrate Research, 2016, 435, 7-18.	1.1	12
81	Facile access to pseudo-thio-1,2-dimannoside, a new glycomimetic DC-SIGN antagonist. Bioorganic and Medicinal Chemistry, 2017, 25, 5142-5147.	1.4	12
82	Fine Mapping the Interaction Between Dendritic Cell-Specific Intercellular Adhesion Molecule (ICAM)-3-Grabbing Nonintegrin and the Cytomegalovirus Envelope Glycoprotein B. Journal of Infectious Diseases, 2018, 218, 490-503.	1.9	12
83	New branched amino acids for high affinity dendrimeric DC-SIGN ligands. Bioorganic and Medicinal Chemistry, 2018, 26, 1006-1015.	1.4	9
84	Interdomain Flexibility within NADPH Oxidase Suggested by SANS Using LMNG Stealth Carrier. Biophysical Journal, 2020, 119, 605-618.	0.2	9
85	Lectin recognition and hepatocyte endocytosis of GalNAc-decorated nanostructured lipid carriers. Journal of Drug Targeting, 2021, 29, 99-107.	2.1	9
86	Identification of a two-component regulatory system involved in antimicrobial peptide resistance in Streptococcus pneumoniae. PLoS Pathogens, 2022, 18, e1010458.	2.1	9
87	Overproduction, purification and preliminary crystallographic analysis of the carbohydrate-recognition domain of human langerin. Acta Crystallographica Section F: Structural Biology Communications, 2008, 64, 115-118.	0.7	8
88	Solution Behavior of Amphiphilic Glycodendrimers with a Rodâ€Like Core. Macromolecular Bioscience, 2016, 16, 896-905.	2.1	8
89	Detection and characterization of merohedral twinning in two protein crystals: bacteriorhodopsin and p67phox. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 784-791.	2.5	7
90	Rapid Onâ€Chip Synthesis of Complex Glycomimetics from Nâ€Glycan Scaffolds for Improved Lectin Targeting. Chemistry - A European Journal, 2020, 26, 12809-12817.	1.7	7

#	ARTICLE	IF	CITATIONS
91	Glycomimetic ligands block the interaction of SARS-CoV-2 spike protein with C-type lectin co-receptors. Chemical Communications, 2022, 58, 5136-5139.	2.2	7
92	Cys5 and Cys214 of NAD(P)H:Flavin Oxidoreductase from Escherichia coli are Located in the Active Site. FEBS Journal, 1996, 237, 870-875.	0.2	6
93	Influence of the reducing-end anomeric configuration of the Man₉ epitope on DC-SIGN recognition. Organic and Biomolecular Chemistry, 2020, 18, 6086-6094.	1.5	6
94	Second-Generation Dendrimers with Chondroitin Sulfate Type-E Disaccharides as Multivalent Ligands for Langerin. Biomacromolecules, 2020, 21, 2726-2734.	2.6	6
95	Controlled density glycodendron microarrays for studying carbohydrateâ€“lectin interactions. Organic and Biomolecular Chemistry, 2021, 19, 7357-7362.	1.5	6
96	Immunization with synthetic SARS-CoV-2 S glycoprotein virus-like particles protects macaques from infection. Cell Reports Medicine, 2022, 3, 100528.	3.3	6
97	Low-Valent Calix[4]arene Glycoconjugates Based on Hydroxamic Acid Bearing Linkers as Potent Inhibitors in a Model of Ebola Virus Cis-Infection and HCMV-gB-Recombinant Glycoprotein Interaction with MDDC Cells by Blocking DC-SIGN. Journal of Medicinal Chemistry, 2021, 64, 14332-14343.	2.9	5
98	Chemoâ€Enzymatic Synthesis of <i>S. mansoni</i> Oâ€Glycans and Their Evaluation as Ligands for Câ€Type Lectin Receptors MGL, DCâ€SIGN, and DCâ€SIGNR. Chemistry - A European Journal, 2020, 26, 12818-12830.	1.7	4
99	New lipophilic glycomimetic DC-SIGN ligands: Stereoselective synthesis and SPR-based binding inhibition assays. Bioorganic Chemistry, 2021, 107, 104566.	2.0	4
100	Membrane-Bound Flavocytochrome MsrQ Is a Substrate of the Flavin Reductase Fre in <i>Escherichia coli</i>. ACS Chemical Biology, 2021, 16, 2547-2559.	1.6	3
101	Precision Glycodendrimers for DCâ€SIGN Targeting**. European Journal of Organic Chemistry, 2022, 2022, .	1.2	3
102	DC-SIGN as a Target for Drug Development Based on Carbohydrates. , 2015, , 379-394.		2
103	Synthesis, self-assembly and Langerin recognition studies of a resorcinarene-based glycocluster exposing a hyaluronic acid thiodisaccharide mimetic. Organic and Biomolecular Chemistry, 2021, 19, 6455-6467.	1.5	0