Steven Ballet

List of Publications by Year
in descending order

110 papers	2,171 citations	230014 27 h-index	355658 38 g-index
111 all docs	111 docs citations	111 times ranked	3340 citing authors

#	Article	IF	Citations
1	Downsizing antibodies: Towards complementarity-determining region (CDR)-based peptide mimetics. Bioorganic Chemistry, 2022, 119, 105563.	2.0	12
2	Genome-Based Characterization of a Plasmid-Associated Micrococcin P1 Biosynthetic Gene Cluster and Virulence Factors in Mammaliicoccus sciuri IMDO-S72. Applied and Environmental Microbiology, 2022, 88, AEM0208821.	1.4	11
3	Call for Papers for a Virtual Special Issue on GPCR Signaling. ACS Pharmacology and Translational Science, 2022, 5, 189-192.	2.5	0
4	Effects of Drugs Formerly Suggested for COVID-19 Repurposing on Pannexin1 Channels. International Journal of Molecular Sciences, 2022, 23, 5664.	1.8	1
5	Structure-Based Design of Melanocortin 4 Receptor Ligands Based on the SHU-9119-hMC4R Cocrystal Structure. Journal of Medicinal Chemistry, 2021, 64, 357-369.	2.9	12
6	3-Substituted 2-isocyanopyridines as versatile convertible isocyanides for peptidomimetic design. Chemical Communications, 2021, 57, 6863-6866.	2.2	2
7	Towards the understanding of halogenation in peptide hydrogels: a quantum chemical approach. Materials Advances, 2021, 2, 4792-4803.	2.6	3
8	Structureâ€“Activity Relationship (SAR) Study of Spautin-1 to Entail the Discovery of Novel NEK4 Inhibitors. International Journal of Molecular Sciences, 2021, 22, 635.	1.8	3
9	Constraining the Side Chain of C-Terminal Amino Acids in Apelin-13 Greatly Increases Affinity, Modulates Signaling, and Improves the Pharmacokinetic Profile. Journal of Medicinal Chemistry, 2021, 64, 5345-5364.	2.9	10
10	Development of Generic G Protein Peptidomimetics Able to Stabilize Active State G s Proteinâ€Coupled Receptors for Application in Drug Discovery. Angewandte Chemie, 2021, 133, 10335-10342.	1.6	0
11	Development of Generic G Protein Peptidomimetics Able to Stabilize Active State G_s Proteinâ€Coupled Receptors for Application in Drug Discovery. Angewandte Chemie - International Edition, 2021, 60, 10247-10254.	7.2	11
12	Antinociceptive Efficacy of the Âμ-Opioid/Nociceptin Peptide-Based Hybrid KGNOP1 in Inflammatory Pain without Rewarding Effects in Mice: An Experimental Assessment and Molecular Docking. Molecules, 2021, 26, 3267.	1.7	9
13	Using conformational constraints at position 6 of Angiotensin II to generate compounds with enhanced AT2R selectivity and proteolytic stability. Bioorganic and Medicinal Chemistry Letters, 2021, 43, 128086.	1.0	1
14	Identification and Characteristics of Fusion Peptides Derived From Enveloped Viruses. Frontiers in Chemistry, 2021, 9, 689006.	1.8	16
15	Harnessing the Anti-Nociceptive Potential of NK2 and NK3 Ligands in the Design of New Multifunctional Î¼/Î´-Opioid Agonistâ€Neurokinin Antagonist Peptidomimetics. Molecules, 2021, 26, 5406.	1.7	2
16	Neuromedin U induces an invasive phenotype in CRC cells expressing the NMUR2 receptor. Journal of Experimental and Clinical Cancer Research, 2021, 40, 283.	3.5	8
17	Comprehensive overview of biased pharmacology at the opioid receptors: biased ligands and bias factors. RSC Medicinal Chemistry, 2021, 12, 828-870.	1.7	16
18	Wandering beyond small molecules: peptides as allosteric protein modulators. Trends in Pharmacological Sciences, 2021, , .	4.0	9

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19	Antimicrobial Activity of a Repurposed Harmine-Derived Compound on Carbapenem-Resistant Acinetobacter baumannii Clinical Isolates. Frontiers in Cellular and Infection Microbiology, 2021, 11, 789672.	1.8	1
20	Anti-Human PD-L1 Nanobody for Immuno-PET Imaging: Validation of a Conjugation Strategy for Clinical Translation. Biomolecules, 2020, 10, 1388.	1.8	42
21	Optimized Opioid-Neurotensin Multitarget Peptides: From Design to Structureâ€“Activity Relationship Studies. Journal of Medicinal Chemistry, 2020, 63, 12929-12941.	2.9	13
22	Mechanistic Understanding of Peptide Analogues, DALDA, [Dmt1]DALDA, and KGOP01, Binding to the Mu Opioid Receptor. Molecules, 2020, 25, 2087.	1.7	14
23	Effects of neuromedin U-8 on stress responsiveness and hypothalamus-pituitary-adrenal axis activity in male C57BL/6J mice. Hormones and Behavior, 2020, 121, 104666.	1.0	7
24	Peptide-based targeting of connexins and pannexins for therapeutic purposes. Expert Opinion on Drug Discovery, 2020, 15, 1213-1222.	2.5	14
25	Insightful Backbone Modifications Preventing Proteolytic Degradation of Neurotensin Analogs Improve NTS1-Induced Protective Hypothermia. Frontiers in Chemistry, 2020, 8, 406.	1.8	12
26	A New Family of Diverse Skin Peptides from the Microhylid Frog Genus Phrynomantis. Molecules, 2020, 25, 912.	1.7	4
27	Zn-Catalyzed Nicotinate-Directed Transamidations in Peptide Synthesis. ACS Catalysis, 2020, 10, 4280-4289.	5.5	25
28	The Neurokinins: Peptidomimetic Ligand Design and Therapeutic Applications. Current Medicinal Chemistry, 2020, 27, 1515-1561.	1.2	2
29	Neuromedin U and Structural Analogs: An Overview of their Structure, Function and Selectivity. Current Medicinal Chemistry, 2020, 27, 6744-6768.	1.2	7
30	The 1,3â€diyne linker as a rigid â€œi,i+7â€•staple for Î±â€helix stabilization: Stereochemistry at work. Journal of Peptide Science, 2019, 25, e3194.	0.8	4
31	Neurotensin Analogues Containing Cyclic Surrogates of Tyrosine at Position 11 Improve NTS2 Selectivity Leading to Analgesia without Hypotension and Hypothermia. ACS Chemical Neuroscience, 2019, 10, 4535-4544.	1.7	18
32	Trifluoromethylated Proline Surrogates as Part of â€œProâ€“Proâ€•Turnâ€Inducing Templates. ChemBioChem, 2019, 20, 2513-2518.	1.3	13
33	A New Wave of Amide Bond Formations for Peptide Synthesis. Synthesis, 2019, 51, 2261-2277.	1.2	34
34	Solid-Phase Azopeptide Dielsâ€“Alder Chemistry for Aza-pipecolyl Residue Synthesis To Study Peptide Conformation. Journal of Organic Chemistry, 2019, 84, 6006-6016.	1.7	15
35	Elucidating the active Î´-opioid receptor crystal structure with peptide and small-molecule agonists. Science Advances, 2019, 5, eaax9115.	4.7	81
36	Primary hepatocytes and their cultures for the testing of drug-induced liver injury. Advances in Pharmacology, 2019, 85, 1-30.	1.2	13

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37	Connexin and Pannexin (Hemi)Channels: Emerging Targets in the Treatment of Liver Disease. Hepatology, 2019, 69, 1317-1323.	3.6	21
38	Radiometal-labeled anti-VCAM-1 nanobodies as molecular tracers for atherosclerosis â€“ impact of radiochemistry on pharmacokinetics. Biological Chemistry, 2019, 400, 323-332.	1.2	19
39	Nanobodyâ€Enabled Reverse Pharmacology on Gâ€Proteinâ€Coupled Receptors. Angewandte Chemie - International Edition, 2018, 57, 5292-5295.	7.2	36
40	Nanobodyâ€Enabled Reverse Pharmacology on Gâ€Proteinâ€Coupled Receptors. Angewandte Chemie, 2018, 130, 5390-5393.	1.6	3
41	Synthesis and in Vitro Evaluation of Stabilized and Selective Neuromedin U-1 Receptor Agonists. ACS Medicinal Chemistry Letters, 2018, 9, 496-501.	1.3	9
42	Indoloazepinoneâ€Constrained Oligomers as Cellâ€Penetrating and Bloodâ€“Brainâ€Barrierâ€Permeating Compounds. ChemBioChem, 2018, 19, 696-705.	1.3	8
43	Rapid construction of substituted 3-amino-1,5-benzothiazepin-4(5H)-one dipeptide scaffolds through an Ugi-4CR â€“ Ullmann cross-coupling sequence. Organic and Biomolecular Chemistry, 2018, 16, 1242-1246.	1.5	7
44	An Efficient Oneâ€Pot Synthesis of Chiral Nâ€Protected 3â€Substituted (Diketo)piperazines via Ugiâ€4CR/Deâ€Boc/Cyclization Process. ChemistrySelect, 2018, 3, 1027-1031.	0.7	7
45	Binding-Site Compatible Fragment Growing Applied to the Design of Î²₂-Adrenergic Receptor Ligands. Journal of Medicinal Chemistry, 2018, 61, 1118-1129.	2.9	39
46	Development of potent and proteolytically stable human neuromedin U receptor agonists. European Journal of Medicinal Chemistry, 2018, 144, 887-897.	2.6	13
47	Efficient one-pot synthesis of enantiomerically pure N-protected-Î±-substituted piperazines from readily available Î±-amino acids. New Journal of Chemistry, 2018, 42, 1595-1599.	1.4	12
48	A bifunctional-biased mu-opioid agonistâ€“neuropeptide FF receptor antagonist as analgesic with improved acute and chronic side effects. Pain, 2018, 159, 1705-1718.	2.0	25
49	Bromotryptophans and their incorporation in cyclic and bicyclic privileged peptides. Biopolymers, 2018, 109, e23112.	1.2	12
50	Zn-Catalyzed tert-Butyl Nicotinate-Directed Amide Cleavage as a Biomimic of Metallo-Exopeptidase Activity. ACS Catalysis, 2018, 8, 203-218.	5.5	67
51	Biodegradable Amphipathic Peptide Hydrogels as Extended-Release System for Opioid Peptides. Journal of Medicinal Chemistry, 2018, 61, 9784-9789.	2.9	20
52	Site-Specific Radioactive Labeling of Nanobodies. Methods in Molecular Biology, 2018, 1827, 505-540.	0.4	11
53	Chemical space screening around Phe3 in opioid peptides: Modulating Âµ versus Î´ agonism by Suzuki-Miyaura cross-couplings. Bioorganic and Medicinal Chemistry Letters, 2018, 28, 2320-2323.	1.0	4
54	Efficient One-Pot Access to Trisubstituted 2-Benzazepin-3-ones as Constrained Pseudopeptide Analogues and Privileged Scaffolds. Medicinal Chemistry, 2018, 14, 400-408.	0.7	0

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55	Injectable peptide-based hydrogel formulations for the extended inÂvivo release of opioids. Materials Today Chemistry, 2017, 3, 49-59.	1.7	23
56	In Vivo Imaging of the Stability and Sustained Cargo Release of an Injectable Amphipathic Peptide-Based Hydrogel. Biomacromolecules, 2017, 18, 994-1001.	2.6	25
57	Rational Design of Nanobody80 Loop Peptidomimetics: Towards Biased Î² 2 Adrenergic Receptor Ligands. Chemistry - A European Journal, 2017, 23, 9632-9640.	1.7	13
58	Bifunctional peptide-based opioid agonist/nociceptin antagonist ligand for dual treatment of nociceptive and neuropathic pain. Pain, 2017, 158, 505-515.	2.0	23
59	Amine Activation: Nâ€Arylamino Acid Amide Synthesis from Isothioureas and Amino Acids. Advanced Synthesis and Catalysis, 2017, 359, 2481-2498.	2.1	15
60	Bifunctional opioid/nociceptin hybrid KGNOP1 effectively attenuates pain-related behaviour in a rat model of neuropathy. European Journal of Pharmaceutical Sciences, 2017, 104, 221-229.	1.9	11
61	Cyclisation To Form Small, Medium and Large Rings by Use of Catalysed and Uncatalysed Azideâ€“Alkyne Cycloadditions (AACs). European Journal of Organic Chemistry, 2017, 2017, 4678-4694.	1.2	20
62	Antimicrobial peptides in frog poisons constitute a molecular toxin delivery system against predators. Nature Communications, 2017, 8, 1495.	5.8	49
63	Analgesic Properties of Opioid/NK1 Multitarget Ligands with Distinct in Vitro Profiles in Naive and Chronic Constriction Injury Mice. ACS Chemical Neuroscience, 2017, 8, 2315-2324.	1.7	30
64	Hydrazone Linker as a Useful Tool for Preparing Chimeric Peptide/Nonpeptide Bifunctional Compounds. ACS Medicinal Chemistry Letters, 2017, 8, 73-77.	1.3	25
65	The Suzukiâ€“Miyaura Cross-Coupling as a Versatile Tool for Peptide Diversification and Cyclization. Catalysts, 2017, 7, 74.	1.6	58
66	Ï‡-Space Screening of Dermorphin-Based Tetrapeptides through Use of Constrained Arylazepinone and Quinolinone Scaffolds. ACS Medicinal Chemistry Letters, 2017, 8, 1177-1182.	1.3	4
67	Sortase Aâ€mediated siteâ€specific labeling of camelid singleâ€domain antibodyâ€fragments: a versatile strategy for multiple molecular imaging modalities. Contrast Media and Molecular Imaging, 2016, 11, 328-339.	0.4	100
68	Bifunctional Peptide-Based Opioid Agonistâ€“Nociceptin Antagonist Ligands for Dual Treatment of Acute and Neuropathic Pain. Journal of Medicinal Chemistry, 2016, 59, 3777-3792.	2.9	36
69	Efficient one-pot synthesis of amino-benzotriazolodiazocinone scaffolds via catalyst-free tandem Ugiâ€“Huisgen reactions. Organic and Biomolecular Chemistry, 2016, 14, 4669-4677.	1.5	14
70	Side Chain Cyclized Aromatic Amino Acids: Great Tools as Local Constraints in Peptide and Peptidomimetic Design. Journal of Medicinal Chemistry, 2016, 59, 10865-10890.	2.9	35
71	Conformationally Constrained Peptidomimetics as Inhibitors of the Protein Arginine Methyl Transferases. Chemistry - A European Journal, 2016, 22, 14022-14028.	1.7	6
72	Biological evaluation and molecular docking studies of AA3052, a compound containing a Î¼-selective opioid peptide agonist DALDA and d-Phe-Phe-d-Phe-Leu-Leu-NH2, a substance P analogue. European Journal of Pharmaceutical Sciences, 2016, 93, 11-20.	1.9	8

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73	Synthesis of Heterocycleâ€Bridged Peptidic Macrocycles through 1,3â€Diyne Transformations. European Journal of Organic Chemistry, 2016, 2016, 5807-5812.	1.2	14
74	Synthesis and binding characteristics of [3H]neuromedin N, a NTS2 receptor ligand. Neuropeptides, 2016, 57, 15-20.	0.9	3
75	Injectable peptide hydrogels for controlled-release of opioids. MedChemComm, 2016, 7, 542-549.	3.5	27
76	Controlled-release of opioids for improved pain management. Materials Today, 2016, 19, 491-502.	8.3	36
77	Mixed Î±/Î²-Peptides as a Class of Short Amphipathic Peptide Hydrogelators with Enhanced Proteolytic Stability. Biomacromolecules, 2016, 17, 437-445.	2.6	30
78	Synthesis of 3-amino-3,4-dihydro-1H-quinolin-2-ones through regioselective palladium-catalyzed intramolecular cyclization. Tetrahedron Letters, 2016, 57, 1547-1550.	0.7	4
79	Suzukiâ€“Miyaura Diversification of Amino Acids and Dipeptides in Aqueous Media. ChemCatChem, 2015, 7, 2055-2070.	1.8	31
80	Synthesis and biological evaluation of compact, conformationally constrained bifunctional opioid agonist â€“ Neurokinin-1 antagonist peptidomimetics. European Journal of Medicinal Chemistry, 2015, 92, 64-77.	2.6	27
81	Structural basis for bifunctional peptide recognition at human Î´-opioid receptor. Nature Structural and Molecular Biology, 2015, 22, 265-268.	3.6	151
82	Azepinone-Containing Tetrapeptide Analogues of Melanotropin Lead to Selective hMC4R Agonists and hMC5R Antagonist. ACS Medicinal Chemistry Letters, 2015, 6, 192-197.	1.3	13
83	Oxidative Î±,Ï‰-diyne coupling as an approach towards novel peptidic macrocycles. Organic and Biomolecular Chemistry, 2015, 13, 9398-9404.	1.5	19
84	Dual Alleviation of Acute and Neuropathic Pain by Fused Opioid Agonist-Neurokinin 1 Antagonist Peptidomimetics. ACS Medicinal Chemistry Letters, 2015, 6, 1209-1214.	1.3	20
85	T3P-Promoted, Mild, One-Pot Syntheses of Constrained Polycyclic Lactam Dipeptide Analogues via Stereoselective Pictetâ€“Spengler and Meyers Lactamization Reactions. Organic Letters, 2015, 17, 4482-4485.	2.4	13
86	Azepinone-Constrained Amino Acids in Peptide and Peptidomimetic Design. Topics in Heterocyclic Chemistry, 2015, , 177-209.	0.2	1
87	Rational design of a hexapeptide hydrogelator for controlled-release drug delivery. Journal of Materials Chemistry B, 2015, 3, 759-765.	2.9	32
88	Structure Revision of N-Mercapto-4-formylcarbostyril Produced by Pseudomonas fluorescens G308 to 2-(2-Hydroxyphenyl)thiazole-4-carbaldehyde [aeruginaldehyde]. Natural Product Communications, 2014, 9, 1934578X1400900.	0.2	18
89	In Vitro Membrane Permeation Studies and in Vivo Antinociception of Glycosylated Dmt¹-DALDA Analogues. ACS Medicinal Chemistry Letters, 2014, 5, 352-357.	1.3	11
90	Hybrid Opioid/Non-Opioid Ligands in Pain Research. Current Pharmaceutical Design, 2014, 19, 7435-7450.	0.9	32

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91	Highly stereoselective one-pot construction of trisubstituted tetrahydro-Î²-carboline-fused diketopiperazines: a synthetic route towards cialis analogues. RSC Advances, 2014, 4, 38159-38163.	1.7	17
92	Efficient synthesis of conformationally constrained, amino-triazoloazepinone-containing di- and tripeptides via a one-pot Ugiâ€“Huisgen tandem reaction. Organic and Biomolecular Chemistry, 2014, 12, 6986-6989.	1.5	27
93	Draft Genome Sequence Analysis of a Pseudomonas putida W15Oct28 Strain with Antagonistic Activity to Gram-Positive and Pseudomonas sp. Pathogens. PLoS ONE, 2014, 9, e110038.	1.1	25
94	Identification of Dmt-D-Lys-Phe-Phe-OH as a highly antinociceptive tetrapeptide metabolite of the opioid-neurotensin hybrid peptide PK20. Pharmacological Reports, 2013, 65, 836-846.	1.5	11
95	Regulatory mechanisms after shortâ€•and longâ€term perturbed lysine biosynthesis in the aspartate pathway: the need for isogenes in Arabidopsis thaliana. Physiologia Plantarum, 2013, 149, 449-460.	2.6	9
96	Variation of the Net Charge, Lipophilicity, and Side Chain Flexibility in Dmt¹-DALDA: Effect on Opioid Activity and Biodistribution. Journal of Medicinal Chemistry, 2012, 55, 9549-9561.	2.9	28
97	In vivo antinociception of potent mu opioid agonist tetrapeptide analogues and comparison with a compact opioid agonist - neurokinin 1 receptor antagonist chimera. Molecular Brain, 2012, 5, 4.	1.3	28
98	Design of Novel Neurokinin 1 Receptor Antagonists Based on Conformationally Constrained Aromatic Amino Acids and Discovery of a Potent Chimeric Opioid Agonist-Neurokinin 1 Receptor Antagonist. Journal of Medicinal Chemistry, 2011, 54, 2467-2476.	2.9	41
99	Amino Triazolo Diazepines (Ata) as Constrained Histidine Mimics. Organic Letters, 2011, 13, 6468-6471.	2.4	35
100	Novel multiple opioid ligands based on 4-aminobenzazepinone (Aba), azepinoindole (Aia) and tetrahydroisoquinoline (Tic) scaffolds. Bioorganic and Medicinal Chemistry Letters, 2010, 20, 1610-1613.	1.0	8
101	PK20, a New Opioid-Neurotensin Hybrid Peptide That Exhibits Central and Peripheral Antinociceptive Effects. Molecular Pain, 2010, 6, 1744-8069-6-86.	1.0	28
102	Synthesis and Highâ€Resolution NMR Structure of a Î²³â€Octapeptide with and without a Tether Introduced by Olefin Metathesis. Helvetica Chimica Acta, 2009, 92, 2643-2658.	1.0	17
103	Conformationally constrained opioid ligands: The Dmt-Aba and Dmt-Aia versus Dmt-Tic scaffold. Bioorganic and Medicinal Chemistry Letters, 2009, 19, 433-437.	1.0	22
104	Bloodâ^'Brain Barrier Penetration by Two Dermorphin Tetrapeptide Analogues: Role of Lipophilicity vs Structural Flexibility. Journal of Medicinal Chemistry, 2008, 51, 2571-2574.	2.9	31
105	Novel selective human melanocortin-3 receptor ligands: Use of the 4-amino-1,2,4,5-tetrahydro-2-benzazepin-3-one (Aba) scaffold. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 2492-2498.	1.0	31
106	Bradykinin analogs containing the 4-amino-2-benzazepin-3-one scaffold at theC-terminus. Journal of Peptide Science, 2007, 13, 164-170.	0.8	11
107	New 2â€˜,6â€˜-Dimethyl-l-tyrosine (Dmt) Opioid Peptidomimetics Based on the Aba-Gly Scaffold. Development of Unique Î¼-Opioid Receptor Ligands. Journal of Medicinal Chemistry, 2006, 49, 3990-3993.	2.9	13
108	Synthesis and Evaluation of the Î²-Turn Properties of 4-Amino-1,2,4,5-tetrahydro-2-benzazepin-3-ones and of Their Spirocyclic Derivative. European Journal of Organic Chemistry, 2006, 2006, 2899-2911.	1.2	21

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109	Synthesis and biological evaluation of constrained analogues of the opioid peptide H-Tyr-d-Ala-Phe-Gly-NH2 using the 4-amino-2-benzazepin-3-one scaffold. Chemical Biology and Drug Design, 2005, 66, 222-230.	1.2	32
110	Efficient Synthesis of Polysubstituted 1,5-Benzodiazepinone Dipeptide Mimetics via an Ugi-4CR-Ullmann Condensation Sequence. Synlett, 0, 32, .	1.0	1